

Issue #1

PS
★

1956 Series

THE PREVENTIVE MAINTENANCE MONTH



Glad Stone

How to get that— MAINTENANCE KNOW-HOW

☐ You're everywhere in your unit's up-to-snuff on the maintenance know-how. But sometimes you still need a little help on an extra-tough problem, right?

Yes, what do you do? Where can you get help?
Well, there are several places. Try these for starters—

Your own Ordnance or Engineer units have trained officers and men who are available to help you with your Ordnance or Engineer equipment. The same's true of your Field Craft units, and Field Engineers.

They can give you a hand with a maintenance problem that's got you stumped. Or, if you think you may need special training in some phase of their work, then these sharp Ordnance men or Engineers can visit your unit for a training mission or have you come to their shop for instruction.

And, that's not all.

They can tell you if your equipment's in the right shape to be used and how to use and operate it right. And they'll let you know if you're using your stuff right.

They'll give a hand in figuring out your unit's needs, kinds of supplies and equipment. You can have them go over your supply-operations, and they'll show you how to do everything—like making out issue slips, keeping records and issuing supplies.

Then, you've got some extra help on various Army jobs. They're officers — and have much specialties in weapons, tanks, vehicles and the like. Check your local Ordnance equipment are called Ordnance Corps maintenance Field platoons, and they work out from your Field Ordnance office.

Some men'll give you unit special training in maintaining Ordnance equipment. They'll hold classes, give group instruction in them, do practically anything to help keep your equipment in fighting shape.

All you need to do is contact your supporting Ordnance or Engineer unit to see about getting the help you need.



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HALF-MAST GIVES THE ANSWER:

TM 9-2070 and TM 9-2060 Have Rapid Plans
of Questions on Whether Vehicles are

TACTICAL OR ADMINISTRATIVE

Dear Half-Mast,

First, when do I use TM 9-2070 (Tactical Motor Vehicle Inspections and Preventive Maintenance) and TM 9-2060 (Preventive Maintenance for Administrative Vehicles)? I'm in a lull, and when I find out, more than 10 use one or the other, I'll be out.

This is how it stands up in their major output: Most of our vehicles are commercial vehicles, which are used for a number of jobs including transporting existing VPs around. We also have a few Jeeps and light trucks. Seeing that the majority of the vehicles are military, though, we've naturally been doing our maintenance according to TM 9-2070... and we've been gipped for it. The inspectors say that TM 9-2060 is the book we should use.

Maybe I've already gone off my tangent, but I just can't see it. You'd better help me out.

W/sgt. J. B. F.

Dear Sgt. J. B. F.,

When it comes to a problem like this, I'll try to keep your lid from doing flip-flops by supplying the right answer.

Usually in the long run, and by used it means the primary job a vehicle is assigned to do.

Your MP outfit is a TCM unit. All vehicles in your outfit whether they're commercial vehicles or by no means, are eventually used directly simply because they're assigned to a TCM unit which is a tactical outfit. Paragraph 2-4.10 of AR 700.105 (26 July 1950) says, "... Tactical use of a vehicle is any use in direct connection with combat or tactical operations, or the training of troops for these operations."

This goes right to the heart of your problem. Your vehicles are all being used eventually, because they're the vehicles you'll use in a number of tactical operations—and you train the men of your outfit in the use of these vehicles for these operations. Even if your commercial vehicles were being used to pick up and deliver groceries, as long as they're assigned to your TCM outfit,



they're considered specially used vehicles and may be maintained accordingly in TM 9-25.15.

The same AR 560.1-57 says this about administrative/specially-used vehicles: "... Administrative use of a vehicle is any use not directly connected with combat, tactical, or service unit operations or the training of troops for these operations."

Let's say you got three 111-ton M1V's from the post motor pool to transport your men to church. This is not in direct connection with combat or tactical operations, and these trucks will be maintained according to TM 9-25.15—because they're assigned to the post motor pool vehicle is not a TOW-1 outfit.



So now you see that a 111-ton truck can be used and maintained administratively and a commercial motor can be used and maintained tactically.

TM 9-25.15 explains in our right paragraph 1 a. This is what it says: "This manual contains the procedures for use with operational and organizational maintenance teams, records and reports generated by the Department of the Army for tactically-used motor vehicles. It does not apply to administratively-used motor vehicles and materiel-handling equipment. TM 9-25.15 contains procedures for administratively-used vehicles."

Half-Mast

IT'S RIGHT IN THE BOOK

The question of limited storage has been nagging people for some time now—and you everything you need to know about any kind of storage will have it all in your hands in right in the book.

You can put a vehicle in limited storage when you don't expect to use it for a short time when you don't have enough drivers to go around. You can keep a vehicle in limited storage up to 180 days—it says so in Chapter 4 in AR 700-105 (Jan 84). If you're going to keep a vehicle in storage more than 180 days, it goes into another storage—and it's easy to usually storage up to three years.

It's up to the using unit to keep and maintain vehicles that're in limited storage. Just like AR 700-105 (26 July 1950) says "The vehicles assigned to user organizations are not required that use may be placed in limited storage when authorized by Army commanders or contract commanders, or the heads of technical services concerned in case of breakdown. The responsibility of vehicles stored under such authorization will remain with the using organization to which assigned."



AR 604 (June 44) and TM 9-2000 (Oct 50) together will give you all the steps on how to get vehicles ready for storage and, after they're done, when to do cleanup 'em in shops.

How's that TM 9-2000 it says "The commander will require the company daily, if not weekly, if or biweekly if perspective maintenance service to be accomplished on all vehicles before being placed in limited storage, and will place the vehicles in the most favorable location available to him, which affords protection from exposure to the elements and to pilferage. The vehicles will be marked "limited storage" and will not be opened while in this category. . . .

"When the period of storage must extend beyond 90 days (over 180 days) the head Ordnance office will be required to place the vehicle in "limited storage" in accordance with AR 704. Visual inspection of vehicles in limited storage will be conducted (as called for in AR 704) at least twice each month to detect corrosion and rust. When corrosion and rust



any kind, immediate action will be taken to save."



This all means that before you put a vehicle in limited storage, it'll pull its daily, weekly or biweekly maintenance (obviously service is done). Look for a good spot—there plenty, it's true, is inside a building.



But if you don't have a lot, stick the vehicle on the best possible solid or gravel ground you can find—and keep those tires out of any oil, grease or lava splashed on the road. **SB 700-4189** shows you in an illustration of vehicles in storage.

And then you go to **SB 9-4**, which'll tell you how to look over your truck.



while they're in limited storage and what to look for. You'll also find the pre-storage info laid out for you in this SB.

When a truck's in standby storage, there're certain things you've got to do to be sure to keep her engine in shape. This is all given in **SB 9-4**. If you haven't got a copy of this SB, order one right now. The distributor normally says nothing as far down as company are authorized to have them.



Connie Rodd's

"DON'T 'N' LOSE IT!"



Spark Plugs

Here's a small reminder on spark plugs for your military needs.

TYPE	RED F ₁ (in)	RED F ₂ (in)	RED, RED Series (F ₁ in)	RED Series (F ₁ in)	RED Series (F ₁ in)	RED Series (F ₁ in)
TYPE AUC	1	1	1 or 1	1 or 1	1 or 1	1 or 1

Spark plug 4—Plug, Red, Red to RED, RED, Red Red to RED, RED.

Spark plug 8—Plug, Red, Red to RED, RED, Red Red to RED, RED.

Here's what to do when your vehicle's supply system has both plugs:

Spark plug 4 is the "cold" plug of the two, and can be used when starting in cold conditions or spark knock or pre-ignition.

Spark plug 8, the "hot" plug, may be used as an "operating plug" for your machine. When "hot" plugs are to be used when you see signs of the "cold" plugs heating up. Use by the instructions in the TBM of your vehicle before changing from one spark plug to another to eliminate pre-ignition or detonation. This hot plug'll burn up excess oil and gas wastes, keeping them off the electrode. It can be the answer to your prayers when the engine is acting up and you need to go.

Hold 'em down

Now keep a good eye on those hold-down clamps on your MTB's upper exhaust pipe—and keep 'em tight, like the TM says. A loose pipe flopping around



MTB (above) hold-down clamp (left)

can cause separation of exhaust ball joints, let fans and blower wings, blow out your upper ball-riding bearings. Tilt, Tilt.

Hold 'em steady!

She may do some realtin' if you're not giving her the attention she deserves. It's your machine gun that you have to keep your eye on. Make sure you're not trying to put her down but pour with something she can't take.

For instance, there is a Mink being attachment (Old Truck No. 4006-4012) you've got to use on your 10-cyl. W1954 machine gun when you lay Mink. The filler piece of this attachment fits in the back of the gun and won't let you feed in a few rounds when you're being Mink away.

So you just never lay Mink away unless you've put this filler piece on your weapon through the gun's aperture without it if the short round cap has been installed according to M1917 (40-7014).

MGE transfer over bearings

You guys with the MGE's learn on this. You might risk transfer over failure by running your crane too long without moving the track.

It works like this—when you are using your crane, the transfer arm is in neutral, as you know. Well, the bottom gears, which are in the lubricator, are not turning. But the top shaft is turning in its bearings. So there is no splash of oil coming up to lubricate the bearings on the top shaft. Lotsa gets up there from running the track. But after it drains down, you've got dry bearings. This is very stupid.

Until something can be done to our own disk problem, you'd better be sure



you move the track a hundred yards or so between each lifting job—also before you use the crane if the track has stood all night.

Another thing that'll help, when you're working with a crane which is pulling a power jack or something like that. Take your main transmission out of gear while you're waiting for 'em to break the connection and so on, or better yet, shut the engine off.

It'll stretch!

So you've been cutting those rubber drain pads to put them on the brake and clutch of your '76 and that truck M-37, M35, and then wiring them back together? And you're ready to give your truck back to the Indians? Guess those drain pads will not stay put!

Well, keep it a while longer. Here's what you can do: mix the drain pad (Dad's Truck No. 0710-73111741) in hydraulic brake fluid, then stretch it over the pedal. It's a tight squeeze but it'll go. You can use liquid soap or even plain old soap if the brake fluid isn't handy but it'll take a little more elbow grease and a few more men words. When you get it over the pedal/jawline it is no done and through that little hole in the floorboard and you're ready to take off.



Remember make sure you're not getting those pads on upside down. The flat side's supposed to be tight against the back of the floorboard, so make sure the cap part goes over the pedal first.

Watch that shaft

Keep your eyes on that glimmer and shaft in your M35 series 3 1/2 ton GMC truck. There've been reports of them twisting and breaking off-on-moving.



Keep inspecting that shaft like it says in TB-9-833A-17 (12 Nov 74) to make sure it isn't twisting. If it is, disassemble the truck until you get the shaft changed.

Long Governors

A loose governor leaks vacuum and it's got to have that vacuum to control your vehicle.

Keep an eye on the governor on your 2½- and 3-ton M-series vehicles. Their mounting screws (inside the governor's throttle-valve-body) sometimes work loose from vibration, and the governor assembly loses its grip.

To see for looseness, grab the governor by the diaphragm and pull gently up the up-and-down play. If it's solid, OK. Otherwise, report it to Ordnance.

It's also important to keep all governor air lines connected right. Any loss of vacuum will affect the proper operation of the governor system.



Cool man, cool!



When running oil-pressure-check on your CD-850 tank transmission, you may have a tough time inserting the plug while the clutch lever is hot. Especially if they're the hex-head plugs found on the early 850's. Some guys have been breaking hex-plug wrenches left and right on those babies.

Secret of success here is to break all the plugs loose first—while the power pack's cool. Just a half turn or so—on

each plug you're going to remove for the testing. Then they'll come out easy, as you go through the checks.

Later transmissions came fitted out with hex-head cone plugs—which helps the situation considerably. They're Ford Stock No. F8H1-0001 F50.

You'll see a TB one of these days on replacing hex socket type plugs with hex head type plugs.

Suffocation!

It's downright dangerous to run your 1½-ton GM-41-mini-trucks when their crankcase breather assemblies are blocked with oil, dirt and grime. You might as give this breather the same run you give your truck's diesel-case breather.

You take off the entire breather unit (it's held by only four cap-screws), empty the oil and clean the element and venturi carefully with solvent. TM 9-8022-117 lists 140 parts 140 goes into this a flat-chaper filter or good oil (the same kind your engine gets) and replace the unit.

Then you're in business.



Leaky draggin'-wagons

Some 12-ton, 6x6, tractor trucks, M35 and M35A1, are leaking lub between the auxiliary transmission and transfer case. It's happening on the early production models that don't have the 1½-in. hole in the left rear flange of the auxiliary transmission.



You can fix that leak right up by using MPRC Part 62460-879 (21 Aug 55). It tells you how to put a new gasket between the auxiliary transmission and transfer to stop your draggin'-wagons from making a leak. This MPRC is in the repair class, so you'd better keep it.

WELDERS, CUTTERS-HO!

You get an acetylene torch and a cutting torch. Each has a No. 45-B-1502 burner in 2nd Submodel kit No. 5. Or, you can use a 41-T-1511-1 burner by the S-S Company of Broadway.

Then, quick like a bunny, stick in the oxygen assembly.

Now, that some of these S-S burners dropped through mine's diaphragm support. With no support, the oxygen gas leaked up on the acetylene, gas starts leaking, and here along you see it—y'don't know nothing.

ROCK
DIAPHRAGM

TURNING
LARGE
SCREW IN AND

Just loosen the adjusting key and turn off the upper burner. You should find a large gap—gap between the oxygen diaphragm and new pin. It'll be either a flat metal disc or an inverted cup, about 1 1/2 inch in diameter.

If it's there, you're OK—and pushed back on tighter right and left. If it's not, turn the whole regulator unit over to Ochsens.

Only S-S Company regulators have a "S-S" (the name's stamped on the upper burner). But—if there's any doubt about the regulator, you've got—check it. Just make a mistake and you'll know.

Dirty Axle Breathers

Seems that several months ago, a whole lot of axle and wheel failures during a recent big snowstorm. When they readjust the axle, it wasn't the axle at all. Seems the trucks were running day and night, on the highway and over country, at you will be tomorrow, and everyone knows about mud on the axle and differential.



axle nut

Oh course you won't let this happen to your vehicle, and to help you keep your breather open, here are some of the spots to look for. If you don't have time to clean the whole vehicle, at least check the breather caps each day while operating in mud.

Now, you'll not a T-boneing this subject.



axle nut

So, the mud was rolling up and clogging the breather caps. With a clogged breather and lots of hard working, pressure built up in the bearings, and pretty soon the lubricant was blown out through the seal into the brake drums.



axle nut



axle nut



axle nut

SWITCHEE THE RUBBER

Wondering where that green you see around your G742-series 20-ton truck's speedometer adapter is coming from?

Well, you're getting that now because a small rubber seal part of the above-mentioned assembly (Old Part No. 6580681) was put in backwards. This was done in some of the trucks after serial number 133117.

Before ripping her down, she, better make sure she greases you with transfer lube. That adapter was built with a pressure relief hole to let the excess grease you put into the adapter flow out when pressure gets up—that's natural. But it's just not natural to have transfer lube flowing—means that rubber seal is wrong and has to be switched.

Here's how: take the adapter (Old Part No. G742-7901405) or G742-790114 to from the adapter above-assembly like it tells you in TM 9-8022 (Dec. 1954) para. 115. Take a look at the rubber seal—if the lip of the seal is facing out, you've got to turn it around so the lip is facing inward (inward means rear).

You'll soon see this pump in the front of a TB.



TANK ROUND-UP

THE SHAPE TELLS THE TALE

You're got to be real close, or these shapes when you're looking for a real wheel-talker for your M47 or M48 tank-follower has these two tools look a lot alike, until you don't know their differences it's easy to get 'em mixed up, and get yourself a mess of trouble.

If you lay 'em side-by-side and hold your good eye on 'em, here's where you can tell the difference apart.

Look at 41-1-1109-100 like the M47 intermediate and rear road wheels has a straight rim. On Mine 41-1-1109-108 like all M48 road wheels the rim is off-set a few degrees.

Now take a square at the base of the tools, and you'll note that the M48 Mine has a couple of ribs on the outside of the arch that y'ain't find on the M47 tool. Right?

When you use the M47 Mine on the M48 tank you can't get it as much on the rail runners like it does on the M47. You can only get it as far as the track-link-bushings or rollers where it doesn't fit at all. And that's where the danger comes in... it could slip on you. Only way to avoid this trouble is to use the M48 tool on the M48 tank and save the M47 tool for the M47 tank.

If you can't tell the difference apart by their shapes, play it safe—mark each Mine with the number that tank it belongs to.



M47

M48

NEUTRAL STEER

Dear Half-Mast,

Here's a question we've been asking over—maybe you can give us the answer. Does steering slip out of control after damage a tank?

Mr. T. F.

Dear Mr. T. F.,

Extensive use of shoring is asking for trouble. Right? But if you use your hand in an important area, you shouldn't have any trouble there.

Just remember it's there for a special purpose—when you're in a tight spot. Use it only when necessary—and just to show somebody how you can hold on tight. And, always, go easy with it.

Plowing is hard on track rollers—and especially hard on fuel drums—down under the base of conditions. And if you get too far into, you're going to lose a tank.

The right way to pivot around is to leave the engine at idle till you engage a full track—by twisting the steering wheel hardover. Then make the pivot by cranking up with your accelerator—easy like. This fully engages the steering, double-rolls help keep it down and even.

It's real like slip steering in neutral that'll really do your transmission dirty. Check in.

Half-Mast



WWW.SHIFT.FI

These results suggest that the use of the proposed model can be a useful tool for the analysis of the effects of the different parameters on the system response. The model can be used to study the effects of the different parameters on the system response, and to optimize the system parameters for a given set of operating conditions. The model can be used to study the effects of the different parameters on the system response, and to optimize the system parameters for a given set of operating conditions.

1991

Save time. Here are several suggestions for fixing that spring leak. Best one, though, is in *WATER* (Oct 1974-WF 111 Feb 75), worked up to fix the problem once and for all. This *Discover's* chance Urgent and should be getting to your Ordnance support world any day now.

Full page ads available on request
 1-800-368-3683

Figure 1



11/17/80 11/18/80

These results suggest that the model is able to capture the underlying structure of the data. The model is able to capture the underlying structure of the data, and the results are consistent with the theoretical expectations. The model is able to capture the underlying structure of the data, and the results are consistent with the theoretical expectations.

100




A new 1.6-liter Detroit Diesel L71 jet (Model A-41-2) should get 4 quarts of the right grade oil. That'll bring it to the FUEL mark on the dip stick. But when you check for regular servicing, not all diesel will run out of the window and a number of the engine, oil lines and filter. So with the proper level values for about 140 quarts.

Keywords: child sexual abuse; disclosure; social support

You'll see more dogs on fishing trips. See page 36. PH. Bruce McMillan

Figure 1



JOE'S DOPE

TIPS FOR WHEELED VEHICLE OPERATORS

THE \$4 MILLION DOLLAR QUESTION

WHEELING AROUND THE CITY OF
WASHINGTON, D.C. IS A
BIG DEAL. THERE'S A LOT OF
GOING ON IN THE CITY OF
WASHINGTON, D.C. AND YOU
WANT TO MAKE SURE YOU
KNOW THE LATEST NEWS
ABOUT THE CITY OF
WASHINGTON, D.C.

YES?

JOEY MONROE: I AM
THE MAN WHO KNOWS
THE LATEST NEWS ABOUT
THE CITY OF WASHINGTON,
D.C. AND YOU WANT TO
KNOW THE LATEST NEWS
ABOUT THE CITY OF
WASHINGTON, D.C.

YES,
WHEELING AROUND
THE CITY OF
WASHINGTON, D.C.

JOEY: I KNOW THE
LATEST NEWS ABOUT THE
CITY OF WASHINGTON,
D.C. AND YOU WANT TO
KNOW THE LATEST NEWS
ABOUT THE CITY OF
WASHINGTON, D.C.



6 AT NIGHT OR IN A POOL, IF YOU
LOSE SIGHT OF YOUR GUIDE... STOP
UNTIL YOU CAN SEE HIS SIGNAL.



7 STAY CLOSE TO A CABLE THAT'S
UNDER TENSION.



8 SLOW DOWN WHEN PASSING A
COUNTRY OF 'BLOODS'...



9 IN A CONVOY, PASS OTHER VE-
HICLES ONLY WHEN ADVISED... BY
PROPER AUTHORITY...



10 WHEN IN A CONVOY, BE EXTRA
CAREFUL IF YOU'RE GOING THRU A
RED ZONE OR A HIGH INTERSECTION.



JOE'S

Dope Sheet

Your vehicle is not a blind date.
If you want to be sure that you'll rate,
Know her needs and demands---
Look ahead---make your plans.
Don't rely upon chance or on fate.



BUS
STOP

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



16 NEVER TRY TO MOVE A TRUCK THAT WON'T START BY THROWING HER INTO GEAR AND GOING TO THE STARTER...



push or tow it...

17 IF YOU STOP... TAKE YOUR FOOT OFF THE GAS AND TURN YOUR WHEELS IN THE DIRECTION OF THE STOP...



18 LOAD YOUR TRUCK PROPERLY...



LOAD FORWARD
AND OVER WHEEL.
DISTRIBUTE LOAD
EVENLY.



ONCE TIED BEFORE TRIP,
TAKE FIRM HIF-
CORRELATION... LET
YOUR TRUCK TIE...

19 KEEP A COPY OF THIS LOG HANDY... AND STUDY IT.



SHOW TRAFFIC MAPS OF STATE
OR COUNTRY YOU'RE DRIVING IN.

20 PERFORM YOUR AFTER-OPERATION SERVICE AFTER EACH RUN AND IF SATISFIED WITH THE



MOVING BACK AT THE PORT...



WELL, YOU
SAY THAT,
JACK...



DON'T WORRY, I'VE GOT IT
COVERED!

BUT, HOW CAN I BE SURE
THAT THE POLICE ARE NOT
HERE?



poor workmanship, too much wear or deterioration for the state the equipment has been in, or, a hazardous condition, unsatisfactory operation, and anything that happens that seems to be important enough to report — you report all these on DA Form 488.

You can read all the new dope on the LER in AR 700-30 (1 Nov 54).

The equipment that's to be reported on these TC-1 and TC-1 forms may change from time to time, but when that happens a new regulation will be issued to cover the changes. Keep your eyes peeled.

At present these forms must be used to report electrical failures only on the following equipment:

Ordinary Equipment

TCO/M15 and T15 Fire Control Systems

Signal Equipment

Radio Set, AN/VRC-11
Zweckhousen, telephone, manual, 68-22/PT

Remember, these new forms don't replace the DA Form 488. They're used for a different purpose, so before you fill in a TC-1 or a TC-1-1 be sure to check the latest copy of AR 700-30. This AR will tell you how to fill in electronic failure reports and when to send 'em.

Half-Truth

TRAILER TROUBLE

Dear Half-Truth,

In this industry maffs, we've been towing our M39 and M73 trailers with the M73 personnel carrier. The M73 hasn't any brake lines, air compressor or air fittings. This can be our problem.

Every time one of our drivers hits the brake fast and hard, the trailer jacks



up, creating a definite safety hazard.

There's no way we can get out of towing with the M73. So, maybe, you can think of anything we can do to make this towing safer?

12 P.C.M.

Dear 12 P.C. W.,

First off—there's no one dropping in that the M73 wasn't built for towing trailers. There are certain times when you have to tow with it, if you get special authorization. But even so the wasn't built for towing, doesn't no reason in the world why the M73's 41,000 pounds can't handle a one-and-a-half trailer.

Why is your outfit having trouble? Well, no, you're doing and it yourself—"every time one of our drivers hits his head, fast and hard . . ." That's the cause of the problem, right there.

The fact is that no vehicle is meant to be towed, especially a vehicle you're using as tow a trailer. If a driver takes a turn or jumps on the brakes when going like a hot-out-of-the-gas or does some other foolhardy thing, that trailer's going to come up from us and what's going on—brakes or no brakes. We want to insure to be towed that way, and no towing vehicle is meant to be driven that way.

Half-Mack

PIN POINTS

Dear Half-Mack,

We've been getting quite a bit of trouble from a little issue in the front which we use from trucks. It's the pin (and, straight up, grooves). It's a (b) that holds the yoke (right) to the clutch yoke. It keeps churning—and tying up a truck for a few hours each time it has to be replaced.

First we figured some eager learners were using a heavy foot instead of a hand to engage the drum clutch. But we found that the pin can shear with no more than the twist of an average wrist—especially if it's done in a hurry. (You get quite a bit of leverage in that slight lever setup.)

Any ideas for beating this up?

CWO L.E.N.

Dear CWO L.E.N.,

Many people find that when the clutch is kept clean and well-lubricated, and gets careful treatment—that's specified in TM 9-8024—the pin'll hold up for ordinary operations.



But when well-cared-for windup gets such a good idea that the pin will shear, better get your mind on a standard pin for the job. It's One Inch Pin. H100-100000. It'll beat the rest from 1911's.

Half-Mack

CLUTCH

Dear Half-Mack,

We've been having quite a trouble on the valve clearance given the (M.H.) Jap. According to TM 9-8024, the intake valve gap .010-in clearance and the exhaust valve .015-in clearance. In

other words, the intake valve is out for JRI is more clearance than the exhaust valve.

This seems kind of strange to us, because in most engines it's the other way around—the exhaust valve gets more clearance than the intake valve. We can't come up with a good explanation of this. So, we ask you, George—why does the intake valve on the M841 get more clearance than the exhaust valve?

Lgt R.H.

Dear Lgt R.H.,

Quite right—the spec for the M841 call for JRI is greater clearance for the intake valve than the exhaust valve. The reason . . . the A1 has an F-head engine—the intake valve is in the top of the combustion chamber (head) and the exhaust valve is in the bottom (block).

That intake valve is operated by a long push rod and an arm assembly which hooks up to the camshaft. The exhaust valve has no push rod or arm assembly but is operated by a screw and tappet—it's closer to the camshaft than the intake valve is.

The valve clearance is set when the engine's "cold"—like it says in TM 9-5814. When the engine warms up to its normal operating temperature, the metal within the block expands (all metal expands—heat does it, if your valves are set correctly, the JRI is different because the run is taken up after this expanding process has reached its peak. In other words, the JRI is more clearance given the intake valve allows for



the expansion of that valve's push rod and assembly. This expansion leaves the gap.

Half-Max

INTELLIGENT DESIGN

Dear Half-Max,

Ever since I've been associated with the JRI fire-control system there's always been a problem of supplying George, Aircraft and Instrument, FSN 2430-26.1-0799. There must be a legal substitute for this item. Can you tell me what it is or where I may find the information?

WFO M. R. P.

Dear M. R. P.,

There's no substitute for George, Aircraft and Instrument. But here's some-

thing that I would suggest the order the 8 in. tubes, TM 9-615-261-8287, instead of the larger amount.

In the first place, there's a greater supply of this size tube than the ground case. Then too, this ground case is long way.

As you probably already know, this ground is now a Quartermaster item but carries the same Federal stock number.



ANCHOR POOP

Dear Half-Mont,

Is there any jump out on the 802 weather? I particularly want information on the use of the ground anchors and the wireggers. My TM 9-617 seems sorta weak on this.

Sgt D.E.D.

Dear Sergeant D. E. D.,

You're right—TM 9-617 didn't go into the use of the weather equipment and TFM is my guess. However, it has been superseded by TM 9-618 (June 1944). The new manual gives you quite a bit more concerning up the weather for recovery work. Look at the sections beginning on page 66.

HARRY - MONT

WHAT'S THE MOONY



Dear Half-Mont,

What's the story? I have a TM Ord 548 dated 13 May 1944 which says the old procedure for the M10 and M10-1 jump are:

Highway	20
Emergency	35
Red, road, or none	10

But the new TM 9-614 (April 44) for the M10-1 jump and the M10 also includes given this information on the procedure (page 100):

Highway	10
Emergency	35
Red, road, or none	15

Now—what do I go by? If the TM superseded the TR, then why didn't it say so on the first page of the TR?

Sgt C.L.B.

Dear Sgt C. L. B.,

That TR Ord 548 is still as good as gold for section 1 and the TM is being revised to show the same old procedure that are in the TR. But until it is you'd better get down somewhere that you go by the TR.

HARRY - MONT

PLANS UP

Dear Rudy/Roni,

Since MFD GTN-878 came out telling us to remove the corner brackets on the battery frames of the 878 Jeep, we've been having trouble with damaged batteries. After you replace the nuts that hold down the battery frame, the frame sits and runs into the battery. And what's more, the battery becomes a little wider you drive over rough roads, causing a short on the terminals.

What do we do now, Ray, just drill the brackets?

Ray A.K.A.

Dear Ray A. K. S.,

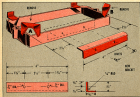
Naps. There's a new MFD coming out to correct this trouble. It calls for placing an angular bracket to the

middle of the frame between the two brackets that were removed.

Here's what you do: Make sure brackets A and B are removed from the battery frames under the hood and the coast. Make two angular hold-down brackets from $\frac{1}{4}$ x $\frac{1}{4}$ x $\frac{1}{8}$ (steel) angle (Jed Jock, Inc. 800.8-01-2888) or from scrap or any other available material.

Drill two $\frac{1}{8}$ -in diameter holes in both battery frames and in the angles. (Be sure the holes line up.) The last thing to do is secure the angle to the frame with two screws. This'll provide equal stress on all four sides of the battery and'll keep your batteries cool.

Ray A.K.A.



Dear Half-Mast:

My Jeep distributor breaker points are dropping out because they're constantly being saturated with oil. Can't figure it.

Here's how I've been taking that distributor: Soak the wick with PC (oil, lubricating, penetrating) and smear a thin layer of GdL into the shaft's felt hole every six months or every 4,000 miles.

Could it be that I'm putting too much felt in the wick, or what?

Pet W, D.

Dear Pet W, D.,

If you're taking the distributor the way you say and your points get oil soaked, chances are the distributor has seal is leaking. This lets oil work up the distributor shaft and gather in the base, with the wick trying to absorb it all. The wick acts like a sponge, but it'll hold only so much. When she's soaked,

the oil's got no place to go so it just gathers up until, well, you need new points.

The thing you'd do is get that leaked seal out of there and put a new one in. The Ordinance stock number for the seal on both the M20 and the M20B1 is the same—4003-1500871.

There's a chance you may get extra oil in the base without having a leaked distributor. This is the oil that runs off from your wick after lubing. So, every so often, maybe once a month, remove that base drain plug and let the oil drip out. You'll know if you have a leaked seal by the amount of oil that comes out. Give your distributor vent line a look too when you make sure it isn't leaking.

This also applies to the distributor on your M20, 5-cylinder, which looks same as on the Jeep.

Half-Mast



ARMAMENT



DO A GOOD TURN-IN

This is no time to hide those broken-down chassis and parts for your M15 and T-10000 systems. Keep those repairable parts around and you'll only clean up your workshop and stock rooms and goof up the overall supply picture.

Once upon a time there were enough stocks of chassis and parts to go all the way around. But as troops fled, that

stock has been going out without enough serviceable equipment being turned in. If this keeps up you may not be able to get parts when you need them.

So please, if you're handling M15 or T-10000 parts that need repair, turn them in. You'll help most with turn-in of complete assemblies.

FOR A SLEEK SLIDE SURFACE



When lubricating M15 and M1000 tools, guns—and those only—spray some CRC (MIL-8-6081A) through the gun shield opening onto the recoil slide surface.

It keeps the surface lubricated and also prevents rust and corrosion. If you don't have MIL-8-6081A, use PL Special.

There's been talk that some guys are using MIL-8-6080 for that recoil slide surface. Soap that—quick fix. The 6080 stuff doesn't contain any penetrative compound and could be run crop in.

Course, 6080A is only for temporary use. It's not the right lube for a gun that won't be used for a long time.

LONGER LIFE FOR MAGNETRONS

They hot boxes are making our magnetrons disappear like a 20-up bonus. Here, we make magnetron types 5700 and 5701, in the NEKE and LHM-15 hot-pointed systems are described as serviceable when they're really not.

Trouble is, the hot boxes are so dry, the magnetrons can't work right.

A weekly checkup and change will be no less than 700 to 800 hours. That's a real good deal. Some magnetrons are more than any replaceable item in their PCB's.

Every week, or four times between, perhaps equally spaced, do this once over:



1. Inspect magnetron hot boxes for cleanliness. Look sharp for any bits of metal around the glass envelope on the exterior. Keep that box box clean as you can be at this time morning inspection.



2. Check them off filament leads. Be sure sharp leads, points that when jerking out from rounded leads in welded terminals. They create corona discharge, which is happening when you see a blue, red, or yellow around the hot box when the magnetron is operating. I'll never live off better voltage.



3. Clean filament connections. Polish contact contact surface on terminals and at magnetron input point.



4. If you've got to replace filament or arcable heated filament leads, be sure the replacement is the **hot** type.



5. After the magnetron from one pipe old age, check the LHM-15 and LHM-15 before installing a new one. If the coil has deteriorated after several windings, replace, or repair, or don't do it.



Dear Sgt. Brown,

I'm trying to find out if Pioneer tool sets are Ordnance or Engineer equipment. I also want to know if the handles on the individual tool set items should be painted or cleaned and then have linseed oil put on.

Over here in Europe, Ordnance says to paint the handles, while the Engineers say clean them and rub them with linseed oil. Who's right and what gives when the authority?

Sgt. T. H. C.

Dear Sgt. T. H. C.,

Your question's a little difficult to answer, because it gets kinda complicated.

The Engineers have the storage and issue responsibility for the Pioneer equipment sets, but not all of the items in the set are Engineer equipment. Some hand tools, for example, have to be requisitioned for replacement parts from Ordnance. Remember that the Corps of Engineers stocks and issues the complete sets only. The sets are listed in the appropriate DSG's.

The question as to whether the handles should be painted or rubbed with linseed oil has been a matter of personal opinion for a long time. But the latest sweep says that the handles will be dipped for a minimum of three minutes in a solution of DDT and kerosene as often as needed. This mixture is just a common insecticide which is available at all posts, camps and stations.

The mixture can be obtained in a 5-gallon container from your Quartermaster unit under Federal Stock No. 6840-211-5891. It's called Insecticide, DDT, liquid, 5% DDT.

This info is hot off the griddle and you won't find a written directive for this method of handle preservation. However, all items furnished by the Corps of Engineers should get the insecticide mixture treatment. Of course, it's another story if the item belongs to Ordnance. Then it's up to the local Ordnance office.

Sgt. Dwyer



WIND IT UP

Dear Sgt. Dwyer,

I'm always having trouble with the recoil starter on my Mall chain saw. When we replace the parts it still won't start again and over.

Sgt. A. H. B.

Dear Sgt. H. M. B.,

There isn't a whole lot you can do about that Mall chain saw starter. It's

a bit tight, no doubt of it. But if you install a new one and then make a practice of some running it around until you're sure you have the starter engaged right, and have the engine running up on compression, then you can give it a real good yank without hurting it.

If your engine doesn't start, go back to the store and way-of-doing-things and if you find the compression again before you give the next strong pull. May that be.

Sgt. Dwyer

Mud-Can Man FROZEN TRACK ROLLERS

Mud plus freezing weather will always give your tractor a hard time. Frozen mud can take up tractor hand work in a hurry, so that's why you want to be extra careful when you park your tractor in such mud. The best bet, of course, is to keep from parking your tractor in mud, but lots of times you can't help it.

If you do have to park your machine in the mud, get a couple of sticks and run your tractor upon 'em. Then, when you're ready to move the next day, your tracks won't be frozen and you can drive right on.

You know what happens when frozen mud sticks around rollers and

tracks rollers? It looks like right. If you run a machine any distance with frozen rollers, the track roller'll rub over the rollers and wear that spot out 'em. When this happens, the rollers are practically useless.

It takes a little more time and effort, but give the track assemblies a good cleaning when running in mud. You'll find the job a short one compared to the time it takes to fix a frozen roller.



NOT TOO FAST, GUV'NOR



A traffic sign won't pull you over to the side of the road for a "speed" violation, but you're a good mechanical factor when you over-speed a diesel engine.

A lot of people think they don't have to worry about overspeeding deaths because of the governor. But they do!

The governor is an absolute essential to a diesel engine, and without it, the

engine would either run away or stop. But still, the governor is just a guide or helper.

The main cause of overspeeding usually can be traced right back to the operator—his carelessness and inexperience.

Remember four important points and you'll cut down your chances of engine overspeeding. Here they are:

1.



NEVER PUSH THE GOV. INTO STOPPING OF OVERSPEEDING THE ENGINE AND CAUSE DAMAGE TO THE ENGINE. **ALWAYS** STOP THE ENGINE FIRST.

2.



NEVER ALLOW THE GOV. TO STOP THE ENGINE. **ALWAYS** STOP THE ENGINE FIRST.



Always use your governor, even though it only regulates the fuel supply.

3.

Look your
owner's
manual for
the correct
downshift.

And be sure you're using the right gear, too. That last gear's carrying load could push the engine over its maximum speed.

4.

Watch the
tachometer
and the engine
rpm. If the
rpm is too high,
the engine
is over-revving.
A tachometer is



That's when the governor's likely to let the engine overspeed. Of course, you should use the tachometer at all times. But don't forget—these vehicle tachometers sometimes take a whole of a beating. It's always good practice to periodically check the vehicle tach against a test instrument.

5.



Push the emergency
stop control
button.

Do this only in emergency, though. Never using the stop control to turn off an engine that's running normally might eventually cause other troubles. Then you might not have the stop control when you need it most.

Remember, whether the engine is newly rebuilt, it's being repaired, or it's been the manufacturer's all-guarantee all parts for a certain period of time, but if those parts go bad as a result of overspeeding, the manufacturer might void the warranty—even if you oversped during the test for the equipment used.

Here's the manufacturer or engine dealer to know the damage has been caused by overspeeding? It's easier than you think. The manufacturer will usually let the only way to tell that an engine has oversped over its maximum. Nope, you can't protect an engine warranty by just trusting the manufacturer.

A close inspection of the engine by the manufacturer can turn up plenty of evidence that you gave the more than the could take.



CONTRIBUTIONS



RED LINED

Dear Editor,

Keeping tabs on that clutch pedal free-travel in wheeled vehicles has been bugging guys for a long time. Think I've finally hit upon a solution—maybe one that all PP readers can use.

Go to your TM and get the clutch pedal free-travel spec for your particular vehicle. After you've got this, measure up along the clutch shaft from the toe board to the distance or distances mentioned in the TM and paint a red stripe on the shaft.

For example, the clutch pedal free-travel for the T-800 is 1 1/4 to 2 inches. Using the method in your TM, measure these distances and draw two red stripes on your clutch shaft—one at a distance of 1 1/4 in above the toe board, the other 2 in above the toe board.

As long as the toe board comes between the two stripes when the free-travel is taken up, you've got it figured—your clutch pedal linkage is adjusted OK. And you don't have to keep measuring freeplay with a ruler—your lock-up will tell you where the studs.

PPC M. E. McElwee
H Houd, Texas

Old Man—I read slowly, but only not a shade the right of the reference for your vehicle. It might be wiser to put me. I've got to do one thing—get the OK of your CO or Ordnance Officer before drilling your way up like a Christmas package. I will see a technical bulletin on this one of these days.



2007-07-25 2007-07-25

Figure 1

"We find we've found a way to build off some of those engine components that occur in 1000 cc's."

Checking it the other day we noticed that the exhaust stacks were badly rusted from installing the top deck with the muffler attached. Since the stacks are joined and movable we figure the damage occurred because they were not lined up as they should be when the deck's retracted.

With improper playing, this is altered so much, nearly the double—and can result in a serious blow.



The new index reflects the smallest number of hours that must elapse after the clock in

removed, and put in back on drive the disk is replaced—making sure to get a receipt for it.

Capt Raymond E. Brown
 Post Road, New York

But Paterson looks like a good safety measure, despite the fact it spends a few dollars to usually match the effort, the match for this dog is the most reliable of 2.0 to 2.5:1.

Abstract

Figure 1

The construction job-changer unit of the 7-gangsize 4x2 Chevrolet light truck, series 1500-1549-50-51, has a habit of working loose. The mounting clamp at the base of the air cleaner hangs loose with



and is easily "wrenched" out of shape under tension by the ascending belt. Sharp since the belt has cut half way through the stone.

We recorded the ascending clamp with a linear and constant and yielded

it is the hole head. This seems to do the trick. It also takes a lot of time to make, since the conventional mounting hole is rather hard to get at even with a screwdriver. Quite often the screwdriver slips out of the hole (head) while loosening or tightening, which causes a cut or "kick out."

Edward B. Brumbaugh
April 1988, New Brunswick



11/11/2019 11:11:11 AM

Figure 1

To take the time and correct use of cleaning 57-mm revolvers rifle chambers by hand, when they're dirty-dirty and incriminated, you need two things: Get a new-olden 59-mm brush that is no longer good for a 55-mm valve, and the powerful electric drill from your garage. *Goodnight and good luck.*

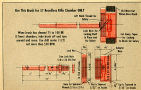
With the sharp-toothed 30-mm broad heads to fit the 12-in drill, I was alerted, just as I was alerted in the chamber and

stant line man. The 17-man line/break is not helpful in clearing the shoulder especially rear-ally users, and doing the job by hand is a life-and-death affair.

A rejuvenated 50-year female not only does the job better, it shows the hard-earned wisdom of a lifetime.

Page 12 of 12

Old Photo—Just before there's always a moment for the children and father.



Concise Rod's BRIEFS

To all men who spend their time
in every dimension of existence
who long for fun and have just been
told "No to VALENTINE!"
Concise Rod's

Salt road

Think that stuff right under your wheels. Get rid of any calcium chloride lather on your road salt. You can easily spot this top road salt on your undercarriage—it looks like a gray powder when dry. Use fresh water and lots of it.

Keep your head

When it comes to that hood holder on your 487 1/2-ton truck, a guy can suffer on his head—or lose it. A gust of wind and an unsupported head make a French gallows look like a parking lot. You'll find that holder above your windshield—use it and don't lose it.

Let overhead

When the thermometer goes up, up, up. Or when the temperature goes down, down, down. There's a very good reason why you're got to lubricate your vehicle more often than it says in the LO. Unusual conditions, such as heat and cold, extra long periods of high speed operation, sand, dust or water can cut down mightily on the grease protection you get from your lubes. What to do when conditions change?

Your lubricants do ground pretty well.

Window cover

A lot of door windows on the 2-ton and 3 1/2-ton M35 series trucks have been breaking. The new "Ugami," 4874D Dual G1-W48 (20 July 1982), puts a stop to this. Get your truck back to Oshkosh post-haste and now payed a cracked piece of glass.

Rer it up

Let's look the 2-ton truck governor setting problem over and be still. A lot of guys still have that governor set at 2400 RPM, following some old instructions that have been long superseded. These governors are to be set at 2800 RPM, say it says in TM 9-405-4 (12 September 1984). This gauge can help stop a lot of trouble from going to you.

Gap-aids?

From your current M41 Building book manual (TM 9-728, June 81) maybe you've got the idea that the spark plug gap settings for 1/2 ton should be the same as on the 1-ton engine plugs. Point to. As the next 744 revision will show, the gap setting for that Detroit Diesel's (Model 6V-92 or -7) plug is 0.017 to 0.020 inches.



No gas-wrench, please

Before any more bottom-end winter-weathering of your M4T truck, better make sure of one thing. Your Onstar Warner personnel heater should have an "O" ring gasket (C248-7760242) and washer (C248-7760345) to seal the exhaust outlet and mounting plate—and prevent leaks of carbon monoxide. If not—bump that worn component will you. Check it! Onstar has a chance to fix it for you. There's an MFG on the way.

Happy fangers

The R4004 (Oct 88) on the Hydro-matic 2F has trucks tells you to torque the collecting nut to 55-75 foot-pounds when adjusting your wheel bearings, and then lock off both of a turn.

No guesswork here

Why guess at the adjustment specs for your wheel-end vehicles? Just keep a copy of TB Oct 88 (p. 36) July 88) handy. You can get it in a "read-to-know" form—in AR 210-98 (2 Dec. 88) tells you. The TB deals with all your wheel-end vehicles except the 408A1—see TB-P-88 14 when handling this bump.

Extension kit

Need a rig for towing your truck or giving outside the truck? There's one out now that'll take care of just about any tow engine. Listed in the CDS 7 for your vehicle. It's OK, extension, electrical cables, it's fuel lines. Owl Stock No. 8910.383.3833. (Just to be Stock No. 41-K-88-888.) You coordinate with Onstar to use it, 100%.

The missing one

The word's out that you can now get a vehicle fuel valve (Owl Stock No. 10-8-8849) for making tests on your vehicle's Exhaust system covered in the R4008. It belongs in your Tool Set, Onstar's Personal Maintenance (2nd edition) Set No. 1, Supplemental.

Duster fails

Please to check the on-board generator output on your M4T 10-80 (Duster) is at the necessary output magnitude—with the master relay switch OFF. On other work engines (see Page 5, 14) it's checked at the drive receptacle with the switch OFF. (Course that's just for the voltage check—always keep the master switch ON for normal operation. You might want to read up on TB 9-88 14.

**ADD
THIS
UP
YOURSELF**



YOUR KNOW HOW



+

YOUR TOOLS



+

LESS



+

CLEANING BAG



+

YOUR

ELBOW GREASE



=

**EQUIPMENT THAT'S
COMBAT-READY**