

Issue 99

PS

1961 Series

THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY

WE DON'T HAVE  
MAINTENANCE PROBLEMS  
ANYMORE. ALL WE  
DO IS...  
FOCUS ON THE  
SOLUTIONS!





## ARMAMENT

## EITHER WAY

Like the question of which-way first, the debate on the egg, shell's bound to be a hot issue and some choose when someone asks: "Which end of a carbine's rifle should be up?"

Actually . . . it doesn't matter which end is up if the rifle's magazine gasket and cap are secure.

But, if you want to have everything the same in your outfit, you can put the rifle in the carbine with storage pointing toward the top of the rack.



## "WOODEN" YOU KNOW IT



Word's getting around that the wooden stocks and handguards on rifles and carbines are being rotted on the salvage pile. Which is all right—when they're really dead.

But—it's not so all right when all it'd take is a couple ounces of the 'em up a home as good as new.

So . . . how about spreading the word that saving back on the depot shelves—just waiting to be repackaged—are some brain savers that'll put your stocks and handguards in the shape TIG GLO HD talks about.

The maintenance and stock numbers shape up like so:



Stock finishing, <http://www.tig-glo.com> | 800-523-0294



Stock finishing, [www.tig-glo.com](http://www.tig-glo.com) | 800-523-0294



Finishing the stocks and handguards means there'll be a supply of new ones handy for replacing those that've rotted real good.

## M10 CLEANING RODS



There's a good word being uttered by M10 aficionados these days about the M10 cleaning rod, that handy accessory with a handle that's mighty useful, too.

Top results, tho, come from using it right. Anything less can mean things up gleam—like the rifle, the rod and you.

The M10's made in the rod can be screwed through the handle's hole all it's all the way through. If the nut's screwed into the handle from the wrong side it won't screw all the way through. That'll cause a gap between the handle and the rod's buffer.

That gap'll cause the buffer to get knocked off its path after it's been chambered into the muzzle a few times.

Using the handle upside down also can cause the threaded end of the rod to bend. This can happen when you push or pull the handle at an angle.

Bottom... screw the rod into the handle or the handle onto the rod the right way. The job of the buffer is to keep the handle from banging into the muzzle, and the end of the rod from hitting the follower. When the buffer becomes worn or lost, get another from supply. Ask for Buffer, Cleaning Rod, P/N 1005-654-1002.



Another tip... don't use the rod, when it's screwed onto the threaded handle hole, to get leverage when loosening a loose or tight gas cylinder lock screw. That'll also bend the tip of the rod. The right way is to slip a piece of the rod through the unthreaded hole of the handle. That'll add the twist power you'll need.



## A TIP FOR A DRIP



Dear Fellow,

Here's something you might want to pass on to state-of-the-Art Chemical people who have **MEAN** similar grievances.

A rubber chair leg tip will fit over the mouth of the leg of the hose. When we aren't using the vacuum generator we slip this rubber tip over the hose's mouth—then if it falls to the ground the dirt doesn't get in and foul up the hose.

Another thing this rubber tip does is to help us keep our unit nice and clean. We don't have all dripping from the nozzle.

These tips can be found in any five-and-dime store and cost less than a nickel apiece... *don't you* *worth it.*



The Gang  
 1218 Chem Corps Water Co.  
 Fort McClellan, Ala.

*(Ed Note—A good idea. You also do away with a fire hazard when you keep that oil from dripping on the floor.)*

## ERASING BAD MARKS



Try a fresh pencil eraser, or any other good eraser, on those scuffboard marks and spots on the rubber floor-plate of your gas mask. It works like a charm. A good eraser and some gentle, pasteurized elbow-grease will help you pick-up even some of those spots that refuse to budge for soap and water.

## EASY DOES IT

WRR OWW



Some guys think that magnets or pump handles on the M3A1 smoke generator will hold their weight if they lean on it.

It may hold down (or may not) but it'll never be the same again. It's just not made to take that weight.

So when you're going to start your generator, crouch down so you can pull

the handle out without putting any pressure on it.

Another thing to keep in mind is the length of the handle. You don't need to pull the handle all of the way out or push it all of the way back in order to start your smoke generator. Nice even motion of six inches is all that you need to get it to start.



## SLOW JOE

Slow Joe, or don't you know that's the way you can check on use of the rubber disks in your M3A1 generator mark an out mark!

Take only a minute to unscrew the rubber and blow on the disk to make sure it's loose and'll work right. Then

blow on the recovery rubber disks.

Now if you think you may be saving a little breath by using a pencil or some other sharp instrument to make the mark, you may be creating trouble. If pressure in the disks could put your mark out of commission.



NO NEED TO WORRY,  
WHEN YOU CHECK...

## M7A1-6 REAR BATTERIES



Do it the easy way. Use a dipstick to check the water level of the rear batteries on your M7A1-6 before throwing away.

All you need is a piece of  $\frac{1}{2}$  or  $\frac{3}{4}$ -in. wood dowel and some black acid proof paint or enamel compound (FSM 8008-280-5141, ENG-1).

The dowel should be about six inches long, and smoothed lightly where the water line should lie when a battery's filled to its right level. Paint the entire dipstick with the black acid-proof stuff, and don't it.

With this handy beam and your flashlight you don't have to pull out the batteries to make this mighty important and rather often PM check. You just crack under the pressure cover, uncover the battery caps and

take a dipstick reading of the water level in the rear batteries. Wipe the dipstick off after checking each cell. The front batteries you can continue to check visually, of course.

Only thing you have to watch for is not to jab the dipstick between the plates in each cell. Be sure your thumb when you use this time-and-saver arrow. Also, remember, you're checking acid, so when you're through checking the batteries wipe the dipstick dry, wash your hands, and wear it some place where you won't sit on it. Also, be sure to wash any spilled acid from any surface immediately, using lots of water.

When water's needed, a regular heavy duty sledge (FSM 61-40-644-4476, ENG-1), will easily reach the rear battery filler holes.

## Fall into leaks



Making sure your subject's vehicle's brakes are in tip-top shape is not only up to your auto mechanic to find during a Q service, but also up to you—the driver. It's your work, to be on the lookout for early signs of leaky brake cylinders.

You may spot a master or wheel cylinder leak's shortly after it gets put on your vehicle.



If a piston cylinder slipped through channels and onto your vehicle, it could mean an early death on the road—for the brake.

When you do find a leaky cylinder, get together with your auto mechanic and call on a support team to check out the cylinder for you. It's their job to see if the cylinder is free of pins or rust. If they find the bore pitted, then it's up to you to file off a UCR on DA Form 458 promptly.

Rule Item 23 of your RM, get with your boss.



1. Inspect for surface pitting.  
2. Check marks and measurements of cylinder.  
3. Number of days (weeks) in vehicle when  
left in just weather.  
4. Date and type of change.

The main thing's to be sure know that an operational failure occurred.





When you're working a wheeled vehicle with a damaged engine, you disconnect the propeller shafts in the front axle and in the forward rear axle.

But first, be sure to raise a front wheel before taking loose those shafts. If you don't, serious windup could make 'em kick like a mule.

Next is, if it's a 4 or 18-tonner, you may need to jack up one wheel on each of the rear axles before taking loose the shafts.



And of course you'll need to do the propeller shafts in the frame, and move the self-lubricating nuts and lockw in the track's support compartment to make sure they don't get damaged or lost.



### OD—inside and out



Keep a close hand when you read para 16 of AR 740-200-1 (1) (the M1 on painting interior mechanical van and panel type bodies of wheeled transport vehicles.

The part of the AR is not meant to include the M41 ambulance... even though para 16 of TM 9-8080-2 (2 May 19) calls the ambulance a panel type.

Paint your M41 olive drab... inside and out. Yeah, even though it's got interior lighting, normally it's not a work area.

So, larger about the light green and some gray primer mentioned on page 38 of PS 86. Start with OD. You can get the dope on this in change 2 to AR 740-200-1.



Does M442 have hard-to-tile doors? Take a square or the head through wire in back of the rubbercar and use it to rest up or hat a kick in it.

If either's the case, then the small screw clamp won't slide freely over the wire to give with a good few tilts.

Just straighten out the wire and spread some Oil on it to keep it from rustin' out and see how easy it'll be to tilt 'em down now.

Also a drop of Oil on the rod which goes through the panel mounting and

a few more down the length of the housing will keep the table working smooth.



By now you're bright-eyed and bushy-tailed when you pull the power pack out on M442 tank. It takes a steady hand to get the pack in and out of its case without banging up the fuel pump. All of these M442 packs are a close fit, but some of them are close close others. Take it easy, easy.

Remember, don't take the pack out at all unless you absolutely have to. Many troubles can be corrected with the engine still in the vehicle.



# TRIMMING THE TRAVERSE



Are your MTD trimmer attachments being "stuffed" by your gear's traversing system? Seems like water is getting into the Traversing Mechanism Cutting unit, and you're not getting through the weeds and grasses seem to be in great shape.

This condition could block out the traversing action of the vehicle's Drive gear. If this failure comes at a time when somebody's hitting the live end at you... you'll be put out of luck.

In this case, what you and other people need to do is to lubricate the ring gear and the exterior portion of the pinion gear with OIL. The use of the job on the Traversing Mechanism will be done by your Operator support work.

So if your SP47's traversing system isn't working smoothly, here's what you might do about it now and anytime you pull a Q.

Remove the grease's use like it tells you to use 10W-30 or 30 SAE of oil. 1/2 cup (120 ml) 1/2 cup (120 ml) 1/2 cup (120 ml) 1/2 cup (120 ml) 1/2 cup (120 ml) 1/2 cup (120 ml)

Through the opening you can then support the bearing ring gear. If it needs oil, or if the like's anyway easy take out the ring block (Fig. 153, 154) 1-2000-012-00 and using the appropriate oil for it (your local dealer). That's to get out all the gear you can and to check for gear damage.

Don't use or avoid again, slowly applying 10W-30 the teeth gear's teeth to both the gear with the gear. Don't use oil unless it's hard to see in oil weight. You're really not to control the oil, until the ring block, and check the bearing for wear plus a looking sheet.

If your gear will wear's traversing smoothly with the vehicle on level ground, you'll need to give to the full treatment shown in para 153 of the 1-2000-012-00. But this is a deal you'll only get into when that someone is giving you a rough time.

# TRIMMING THE TRAVERSE

- 1 Remove the bearing with oil. Be careful not to make sure use the water with and you don't make sure on oil.
- 2 To make sure you keep the right alignment to avoid failure, particularly make it a line on the bearing mechanism bearing on the bearing ring and on the pinion gear bearing.
- 3 Remove the the hole and number of the Traversing Mechanism.
- 4 Making sure you don't the top settings, make sure on the Traversing Mechanism.
- 5 Check the pinion gear for wear, dry rot, or chipped teeth or loss.
- 6 Repair the bearing ring for wear, cracks and loss.
- 7 In the case that can be repaired, check the ring for any oil or foreign matter (or packed) broken, chipped or bent teeth.
- 8 Check the gear ring with and make sure you get it right. If anything is not right... have it replaced.
- 9 Apply oil to the ring gear through the top opening near the center edge of the bearing support away from the left side (to the right side) the ring.
- 10 Lubricate the exterior portion of the pinion gear with oil.

When you put the bearing back, follow the instructions in para 153 of the 1-2000-012-00. Careful now, since installing the Traversing Mechanism involves outside roller design which need attention like the backlash alignment and the torque of the bolts. To make sure you follow the 10W-30 right time. If you're not equipped to do it, call in your support.

WITH FEWER 2-CYCLE  
AIR COMPRESSORS

FORWARD, BACKWARD  
OR NEITHER AT ALL!

# DON'T SETTLE FOR LESS

When you need the most from your Inlet/Winghouse (HYCBI-33, 3-CYCLE  
Air Compressor—you need the most.

And, 175-0754 is what the most has got to be.

So, why settle for less?

Shop—good operators and maintenance will go a long way toward giving  
you what you need.

Here're 10 points to cover with a special look-out during your regular PM  
services. If your compressor isn't putting out its snuff, chances are it's suffering  
from one or more of these ailments:



**1. CARBURETOR**—Mixture  
and idle mixture controls  
not properly adjusted.



**2. SPARK PLUGS**—Dirty, firing  
gap closed (or  
SOPOLU).



**3. ENGINE SPEED**—Governor, carburetor  
not properly adjusted.



**4. VALVE GAPS**—Not adjusted right.  
Tension too tight, breaks the valve.  
Deflection should be equal to width  
of belt/valve guard base.



**5. AIR PRESSURE SWITCH**  
(HYCBI-33)—Not adjusted  
right.

SHOPS



**6. DAMAGED MUFFLER**—Damaged, clogged,  
leaky.



**7. FAN SHROUD**—Dirty, clogged, loose.



**8. COOLING FAN**—Dirty, clogged, bent,  
broken.



**9. AIR CLEANERS**—Dirty, painted  
screen damaged, leaky.



**10. FUEL**—Dirty, contaminated.

## DON'T FLIP YOUR SPRING



Heads you win—tail you lose.

That's the way to call it when you install the element in the auxiliary fuel filter in your International Harvester TD-18 tractor.

Some guys have been trying to put the separator screen and spring in bottom side up—they just don't work that way. With the spring flipped over, it raises the filter element so it's just out of the way about an inch.

Watch, the cover doesn't fit. And, the guy has got a hose and figure he has been given the wrong size element.

To come out an easy winner when you replace an auxiliary fuel filter in your TD-18, be sure that the water separator screen is in place at the bottom of the case with the spring right side up.

A break-up job makes for a good fit and puts you back in business.

## GET IT DONE



Get a couple of your toughest rigs sitting around waiting for maintenance!

You have the MWD— it's a job scheduled for organizational maintenance. But, you're hung-up because you don't have the time, the tools or the men with enough sense to do the work.

Blame ticks what's holding you

up, the inspectors are going to make it tough for you if it's not done, say nothing of the time that your equipment's on the sidelines.

Talk it over with your support people. Could he they'll furnish you with the tools, the materials or the guys with know-how to get you over the hump. They just might even take the job off your hands.

Regardless of who does the job, the big point is get it done.

## A CLIPPING PENALTY



Get a Concrete Machinery Ltd. Model 10-200-250, pouring, finishing machine?

You may be penalized for clipping if you keep the engine warning crank mounted on the instrument panel when you're not using it.

Here, that's what the crank mounting clips on the panel are for. But,

you'll save a lot of wear and tear on the instrument if you take the clips off the instrument panel, give them the old hawkeye, and store the crank in the tool box.

When your machine's operating, the crank hangs on the panel and... good-bye hawkeye.

## SPEAKING OF LENSATIC COMPASSES...



OK, so you weren't speaking of compasses. Anyway, it seems quite a few compasses are being loaded up because some Japs aren't too sure about how to close them up. It's like trying to refold a road map.

There's just one right way and here she is:

You begin by pressing the eyepiece

carefully over the compass dial. Then you close down the cover and turn up the thumb loop. And presto, right into the case.

Naturally, you keep your compass clean and handle it with loving care. After all, it sometimes knows more about where you're going than you do yourself.

## A TIGHT SQUEEZE

YOUR SYSTEM



Sometimes a guy finds he needs a finer filter than the one he's using. Like when you've tried to take the air clean off your 3-HP Military Standard Engine, Model 2A1161—especially when it's coupled with a governor or another rig.

The rub of the problem is the 14-in. 34-in. capsize which causes the upper air duct to be crowded. Since the capsize is installed with the head towards the power intake end of the engine, there's not enough clearance between the air duct and the housing to work the screw out.

You can get out of the system and simply fix it.

Any time you have to remove the air duct, just use the capsize—and off it comes. Then when you put the duct back on, naturally you need a new capsize.

But, here's the catch. When you put the new capsize on, you rotate the coil and put it back so it's facing the crankshaft end of the engine.

Next time the duct has to come off, where's the capsize?



If your trailer uses a 12-volt push-type incandescent socket, DSM 12-08-279-7243, you'll be needing these new DSM's to get replacement clearance lights.

DSM 12-08-279-7243

Red clearance light (RCL)

DSM 12-08-279-7241

Amber clearance light (ACL)



DSM 12-08-279-7242

Red reflector light (RRL)

DSM 12-08-279-7244

Amber reflector light (ARL)



And to install these new lights, you'll also need to drill a 1/4-in. hole in each back plate, for the locking dowel that holds the light in place.

## SIT TIGHT AND BRIGHT

Operating a Clark scarp loader is something like being a lion tamer—you mean't be carried away by the performance.

One wrong move with that Clark loader—like standing up or leaving the masts when those booms are high—can get you mangled in a hurry. It's mighty easy to accidentally tip that bucket lowering lever.



To have to make all the right moves from front of back, by reading and then following all the "Safety Precautions" on the inside cover of your Clark loader operation manual. Check TM 5-1495-207-15 for the 174 Cu. yd. rig and TM 5-3005-208-15 for the 214 Cu. yd. loader.

Each precaution is there for the best of all reasons—to protect you and your crew from powerful danger.





## RECEIVER R-392/URR

**ANTENNA RECEPTACLE**—Shell bent, porcelain cracked, corroded.

**ANTENNA BINDING POST**—Dirty, corroded, damaged.

**RECEPTACLE CONNECTORS**—Shell bent, damaged; pins bent; corroded.

**CABLES**—Frayed, wet, kinked, pinched.

**FUSES**—Missing, wrong rating, burned out, not installed snugly.

**METER WINDOW**—Dusted, missing, dirty.

**WAS AND FUSES**—Loose, fall to WAS contact lead.

**CASE**—Dented, rusted, paint chipped.

Whenever you clean, oil, inspect, or work with cleaning compound and soap away from carbon arc.

## MOUNTING MT-851/ERC-19

**REAR CLAMPS**—Bent, worn, held.

**METAL SURFACES**—Dented, paint chipped.

**SHOCK MOUNTS**—Rubber dry, cracked, balls bent.

**FRONT PRESSURE ADJUSTING CLAMPS**—Bent, worn, held.

NAET BAY HP-14-F

NAET SECTION HS-116-A, SM-117-A,  
MS-118-B

ORGANIC INSULATOR  
—Erasable, clipped,  
painted.



SINKING PASTE—  
Gases, evaporates.



TIPS—Painted, copper  
solder/rolled through  
PASTE—Clipped, ap-  
plied to threaded por-  
tion.  
NAET SECTION  
—Gases, erodes.

MICROPHONE (M-25/D; H-33/31)



CABLE—Fused,  
cracked.

PUSH-TO-TALK SWITCH—Fails  
to make contact, rubber foot  
ripped.

CONNECTOR—  
Cartridge  
shell bent.

## RUNNING SPARES

R-392/URR

TRANSFORMER T-102 (GR-11)

CASE, ELECTRON TUBE,  
CY-102, GR-12

(Missing, Damaged)

2 tubes, type 6X4/60

1 tube, type 5Y5

3 tubes, type 6X5

2 tubes, type 5Y4

1 tube, type 5Y3

1 tube, type 6L6

2 tubes, type 6X5

2 tubes, type 6X4

1 tube, type 6AU6/6A

3 tubes, type 25A17

1 tube, type 6X4

3 dial lamps, 25 v., 175 amp

4 tubes, 10 amp

4 tubes, 15 amp

5 tubes, 20 amp



CASE, ELECTRON TUBE CY-  
124, URR—Missing,  
damaged

10 tubes, type 6X5

2 tubes, type 25A17/6

2 tubes, type 25A17

4 tubes, type 25A8

2 tubes, type 25A6

1 tube, type 25B8

2 lamps, dial, 20 watts,

125 ampere, GE T-284

5 tubes, 15 ampere, type 4 A0

MISSING,  
DAMAGED

MISSING,  
DAMAGED

Hand in hand with any inspection of the Army U.S., of course, is the necessary use of DA Form 11-126 (Maintenance Check List for Signal Equipment). Keep it close to the set and keep it up to date. Take only a few moments to pull the daily and weekly checks—and set the watch longer for the month.

# POWER IN REVERSE



When the red light dies and the radio ceases on your M311PT field switchboard—the trouble could be entirely battery.

Use field-on a minute before checking all four BA-30 batteries out of the battery case. There may be hours of valuable use left in 'em. Look at it this way.



Two batteries supply the necessary 2 volts to operate the night alarm and light switch. The other two generate a similar voltage to power the operator's telephone.

THE STRONGER BATTERIES TAKE OVER THE POWER SUPPLY TO THE LIGHT CIRCUIT.

WHEN THE WEAKER BATTERIES ARE USED UP, THE STRONGER BATTERIES TAKE OVER.

THE WEAKER BATTERIES AND THE STRONGER BATTERIES SHARE THE POWER.



But the drain is different since the alarm circuit usually pulls more juice than the operator's circuit. Which means, in a general rule, a slightly uneven drain on the batteries.

So, before checking all four batteries, just pull out the battery case—reverse it—and put it back in.



That way, the batteries under the operator's phone will now be included in the night alarm and light switch circuit. And vice-versa. This will put the two stronger batteries working where they're most needed, and the weaker ones will still be able to do a job because of the reduced requirements.

This kind of battery switching could come in handy if you're miles from nowhere and haven't any way from here new batteries when power starts to fail. Especially if a few extra hours of operation is all that's needed to get all the messages through.

## SOFT CELL



Why take chances with old batteries—especially the mercury-dry cell models (1,200 to 2,000 series)?

Because it's money they've not delivered the juice, the only thing on its is hard for the salvage pile. Because they accumulate over the risk of actually exploding.

A weak or dead cell in a mercury battery will gradually fill up with hydrogen and oxygen gas. The hydrogen

leaks out. Because eventually there's just too much of it for an unvented cell to hold—Bang! Tip the glass.

So, never try to "charge" a mercury dry cell battery thing. Some words down signs of swelling; for confirmation, get rid of 'em. Just because some ends up in a box or in the hot sun. That'll sure cook off a mess.

With old mercury batteries, HANDLE WITH CARE is a good PM motto.

## DUMBBELL DRILL

Some dumbbells come in handy for exercising and beef' up the muscles.

But the dumbbells from your AMFIRE 3-B radio sets can do without the strong-man stuff. They prefer the first few gentle approach, whether you're tightening or untightening.

And that applies both to the CX-1211U (connecting the receiver-transmitter of Set 1 with the power supply) and the CX-1213U (connecting the amplifier with the receiver-transmitter of Set 2).



In both cases, tightening one right on the wing nut of the cable plugs means a certain pattern on the receptacles—and actually can mean repeat them soon. In the tighten the plugs get, the general the chance you'll loosen the receptacles.

And whether the dumbbells being hooked up or unhooked, how to mind that it's a controlled operation. Both wing nuts get tightened or untightened evenly. Both hands work together, so that both plugs are secured in or removed out at the same rate of speed.

That's the only reason these dumbbells provide for exercise. But it's all anybody needs for using PM.

## CONTINUITY CAPER



**ADDITORSPEAKS!**

"Why didn't somebody check that out before we got into the truck?"

Good question.

A man puts out his SPID... looks up his phone... and then finds out there's trouble in the line. Sometimes it's not fun. And there's no need for it to happen.



Count one of the main things in the world is to check the continuity of an MS-100-or any other word. Nothing!

most than looking up a TALENT and phone to each end.



Once that's done, just crank back and look a few times to make sure the line is continuous and has good continuity. Taking time to do that before moving out will save time, worry, work and stress when it comes the time.

## GAFF, GAFF

Look out! They're sharp!

The gaffs on your GC-fellows have to be sharp, of course, to get a line out up and down safe and easy. But just as they're vital to a climb on a gaff, they're strictly useless—and dangerous—to lean on the ground.

These sharp points is ready to gaff anybody who comes close to it. Now, one way to avoid the gaff is to work in. Just move those sharp points with some care as soon as you're finished climbing.



## COVER THE SUBJECT



All plugged up?  
Less of cover available?

But only one for an MT-29712R mounting.

And that is simply to make sure a plug is ready when the time comes.

The subject in this case is the plug-in-cap—media protect the J-1 receptacle on the rear lower surface of the junction box on the MT-29712R.



That receptacle is a 14-hole model that is used, of course, whenever a local

control T-414708C or control T-4117 GRC is hooked up with the radio-set.

And the receptacle has tabs protruded whenever those control units are pulled out. Otherwise, all the good and isolation that normally reflects underneath a mounting is just gone! or reflect in that receptacle.

Look up the protective plug handy, look for wires lead to one of the junction box cover plate holes. That way, the cap will always be firmly fixed to the mounting even though it's not in use.



Most important of all, it'll be ready to plug away as its protective isolation the minute a control unit is pulled out and the receptacle exposed.

## FLUSH IT

That handle on the crank assembly of your TA-411PT or TA-412PT is ready-made for flushing.

But only flush it when you've finished cranking, of course.

Because leaving that joined handle in the raised, or operating, position is an invitation for breakage. And trouble crops up either in the field or during storage or transit.

That handle will let' out one each on at least a thousand things . . . a parking position, a home line, or maybe a careless



hand. Don't make a reflex action to return the handle to its operating—or flush—position as soon as you've cranked up the photos.







**FIT**—Too loose or too tight, rides high or low on forehead; chin strap, earphones uncomfortable; mids doesn't match up with mouth. Your safety and comfort depend on how your helmet fits. Double-Check TM (90-84) 5-225-13 tells you how to match a hard hat to your (off-the-line) head.

**EDGE ROU**—Dirt, loose, dirty.

**HEAD (SNAP) STRAP ASSEMBLY**—Torn, dirty, unscrewed won't hold snug, stitching ripped.

**CHIN STRAP ASSEMBLY**—Strap torn, dirty, stitching ripped, pulled, green mold, buckle rusty.

**CHIN (SNAP) ASSEMBLY**—Dirt, ripped, dirty.



**INSIDE (SNAP) HEADSET**—Earphone cushions dirty, wires and connectors cut, broken, broken, frayed, stressed. It usually means you don't get any noise and no sound, and you're a danger from other people's noise.

**FRONTAL AND SIDE VIEW**—Cracks, scratches, dirt, rips, rips, rips, broken assembly parts, bending wires and spring clips, wiring.



Hope you don't strap your helmet by the snap strap—never! That'll stretch the snap strap adjustment, which'll loosen the helmet's chances of sticking to you through thick and thin. A weak snap strap won't keep the hat from slithering down on your nose, cause a accident, jolting halt. May, the way to easy a helmet is like a football under your arm, or by the chin strap, like a basket.

**MINI-MOP CHANGE ...**

## MAKE IT A 1000:00

If ever you've been idling about when to change props on your Scimitar's CE-21A, B, and F1, head out a meeting party or look for TMC manager TCMAC: EL-21-80-2400 (Page 60).

This TWX increases allowable operating time between overhauls from 500:00 to 1000:00 hours for props P/N (C) 18-528-0618 (P/M int: 1811881) and props P/N (C) 18-528-0618. That way the prop and engine don't come out even. How's that for making things easy?

# JOE'S DOPE

# WHERE IS IT?



I caught him as he was pulling out of a drive and did him back a quick dash.



When I rolled up on the bus, you know my turn, I poured it into the...



Remember I know, I rolled him around, I know he went, knowing like a...

John, you're not...



Wah?

Did you know Thomas Michael...



Look, kid... Dave got from Matthews, because he's in the... get on the job and I'll see you in a minute.

?



Well, to be sure of the... you see, he was... you, I know I know... you know he's... you know he's... you know he's...

Did you know... you know he's... you know he's... you know he's...

I'M NOT SUFFERING, AND I HATE TO BE AT A MESSAGE, SO THIS SOME KIND OF "LULU" MESSAGE. CAN'T HAVE TO GO TO THE BOTTOM OF THESE.



DON'T WORRY, MY LITTLE MISS.

WELL, MY FIRST REG. YOU WANT LATER, TOOK THE OIL FILTER OUTSIDE FROM... BECAUSE THAT COULD BE FILTER AT ALL.



OIL FILTER... OIL FILTER... OIL FILTER... CHECK THERE ARE NO OIL FILTER HERE...



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.

OH WELL... LET'S THE BEST OF MY BEST... YOU CAN'T SEE...



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.



WELL, I TOLD YOU NOT TO WORRY UNTIL I FOUND THE OIL FILTER. OKAY.





**Joe's** Dope Sheet

**NOW AS THEN...**



If a mechanic doesn't  
have experience, he  
should at least have  
it looking over his  
shoulder.



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

# MURDER

HOW COULD HE GET BY  
WHILE ON THE WHEELS  
WHY NOT BEEN TOUCHED?



5 **WAS HE REALLY PLAYING WHEN HE CALLED SAUL, TELLING HIM TO GET AWAY FROM THE CAR?**



WHEELS... IT'S, LIKE  
THE BETTER PART  
OF AN HOUR JUST  
TO GO TO THE  
OFF AND PUT THE  
IT BACK ON...



WAS HE REALLY  
THE LUNATIC?



ONE WITH  
THE  
STRANGE  
MURDERER.  
**NO!**

10 **FIFTEEN LATER**



LOOK BOB,  
DON'T WORRY! I KNOW  
THIS ONE HERE, AND TRY  
ONE ON THE OTHER  
SIDE...



ALL SOME  
SABOTAGE? OR IS  
IT JUST THEM?

WELL,  
YOU PROBABLY  
ONE LITTLE  
THING.



THE BLADE  
PUSHING  
BLASTING.



IT'S  
NECESSARY...



MURDER... CAN YOU  
BE ANY MORE  
BOLD? YOU'RE A  
COURAGEOUS MAN...  
THAT'S THE ONLY  
WAY YOU CAN  
DO IT!



THESE GUYS  
ARE A LAW  
AGAINST YOUR  
LIFE WILL

WOULDN'T YOU  
WANT YOU  
CARE ABOUT







## TUNE AND TIGHTEN

CHECK FOR  
A LEAKY  
DRAINAGE SYSTEM



Dear Sgt. Dyer:

The 15 HP West Bend outboard motors are tearing up with a couple of fellows on full-throttle operation.

The bilge's cork plug being against the support plate and work done. Also the gearshift linkage jumps out of line.

Can you like on preventing these problems?

Al Sgt. P. K.

Dear Sergeant P. K.,

Vibration is usually the bad guy when outboard motors make problems like those you mention.

Vibration, from a rough engine or loose bearings, will shorten your outboard motor much faster in full-throttle operation than in cruising speed.

When spark plugs being against the support plate, chances are you'll find that vibration has loosened the screws attaching this plate to the upper-chuck-mount-bracket and the link-plate plate.

These screws have IT lockwashers, but they can work loose. If you can't manage some irishman eye Fasteners for slipping these screw threads, they'll stay put longer.

Vibration can also foul up your gearshift linkage by clearing or disconnect-



ing any one of the arms, pins or guides that might work loose from its fastening along this line.



So "Tune and Tighten" is always a smart idea to make into your work sheet on outboard motors. This is especially true of your West Bend models, because they'll run on one leg if you let 'em.

Sgt. Dyer

## MORE LIFT

Dear Half-Mast,

The chain hoist and blocks are not in OED F 5N1, G712 on the M173 10-ton truck. Can we get stock numbers and manufacturers?

Agg J. L. R.

Dear Agg J. L. R.,

Here you are:

Item 504 (3 ea), FN 374-605-113.

Block, 1 ea, FN 384-605-402 (36 4,  
120,254) (both by Goodrich-Aurville).

Block and Falls, 1 ea FN-211-443.



The items are at the depot waiting for your requisition.

## BENEFIT OF THE COURT

Dear Half-Mast,

As an inspector of Chemical equipment I like to be fair and give a deserving rating regardless of what it is.

So, what happens when a rating comes out in 80.0%, does the guy get a rating of Good or Excellent?

And when the rating comes in 49.9%, does he get an unsatisfactory rating?

Mr. E. T. R.

Dear Mr. E. T. R.,

The Chemical Corp uses the whole number in the rating system. No up side for the evaluation of the fraction has been set up; however, when there's a fraction, here's how the inspection rate.

Ratings with the fraction above .3 would take the next whole number. (80.0% would be 81).

It's intended that the inspected unit be given the benefit of the doubt when both side ratings occur.

Ratings with the fraction .3 or less just drop the fraction and carry the whole number. (49.9% would be 49).

## YOU CAN GET IT!



Dear Wolf-Man,

Following three of the items of the January receipt (above) and the strap from the garden hose bracket are vehicles are items that can be reproduced. And if so, how?



Capt. D. F. F.

Dear Captain D. F. F.,

You, Sir, they look can be reproduced from Ordnance, but you've got to do it right.

Since these items are not in the parts for your vehicle and are found only in the Ord. Inv. S, the only way to get 'em is by sending your order through channels along with a justification . . . like it says you should in the first paragraph of my Ord. S.

Since an IBM has been assigned to the name (DCWB)-Power Bookings

-50001, use Ord. Form Number 712860 when you ask for it.

As for the strap, use FOM 1348-700-4007 and ask for it by the name Strap, Wedding, Canon, Military, Reel, Old, River, Hole, Bottle, Sewed. This strap is a component of Bowler, Drum, Inflatable, Liquid (Giant), seal, welded, complete w/strap-FOM 1348-4754454.

*Wolf-Man*

## COMBINATION TOOL

Dear Wolf-Man,

There's a special wrench used on the MOST weather rifle that's used for adjusting its REC opening rifle.

How does a piston go about ordering one?

Dear Lt. J. E. H.,

The strap on getting the combination tool, FOM 1084-736-6110, is in part 45 of TM 9-1800-205-11. As the TM says, standard and commonly used tools and equipment for the opening rifle are OC-3 for items to using tools by ORD T SML C-03.



Dear Lt. J. E. H.

*Wolf-Man*

## RUM DOLERS



Dear Mad-Dog:

In PD 83, page 18, Gamble says HFO 9-2300-202-20 13 (the 13 is the OK for getting rid of heat-up tension after an M42-series tank). What PD like to share is: What's the number for the same dopping trouble on M47 tanks?

Sgt. J. J. L.

Dear Sgt. J. J. L.,

If they must come off, Ordinance says let's OK to remove M47 tension after assemblies like it says in MFWG-9-2300-201-20, par 13a.

When the tiller assemblies go back on an M47, your command can give the go-ahead to remove it instead of repairing it.

It's done like this:

1. Cover the area around tiller assembly with asbestos.
2. Cut off tiller arm with acetylene torch but leave one support attached to hull.
3. Grind smooth all sharp edges and give the entire area a good coat of paint.
4. Send the job to the hull's 3d Flt. 47th Equipment Depot, Juchok, or when the change to the MFWG comes out to include the M47 you'll know what M47 already had the suspension.

*J. J. L.*

## GOLD OR COOLER?



Dear Mad-Dog:

This is a thing we have been having a lot of hull sections about and maybe you can answer it.

When does an engine run cooler? On straight water—or on a mixture of ethylene glycol and water?

Sgt. C. M. P.

Dear Sgt. C. M. P.,

We need for the hull section. Just run to TB Ord 611 (9 Dec 55) and there in para 1a, you get the dope. You can't heat plain old water for cooling your engine in hot weather.

—An 150°E. water picks up and gives off heat about 114 times as fast as ethylene glycol.

In other words, if you get a radiator full of ethylene glycol, your cooling system has got to work 110 times as hard to get rid of the same amount of heat.

Well, maybe it can. In that case your engine temperature would be the same.

The temperature an engine runs at depends on a lot of things, including the temperature of the air outside the engine, the amount of load on the en-

gine, and the way the cooling system components are behaving. These things have got to be considered whether you use plain water or the glycol.

If you want to know all about what makes an engine run hotter or cooler, the answer can get pretty complicated.

But if, like I think, you want to know what gives off the best heat, water or ethylene glycol, the answer is water by a country mile.

*Haystack*

## ROAD WHEEL WEAR

Dear Haystack,

Is there anything I can do to keep the inner road wheel on my truck from wearing out before the outer one?

I have noticed on all kinds of trucks that the rubber on the inside road wheels wears down fast. What causes that?



Dear SFC R. M.:

There are a couple of reasons why the inner road wheels go fast, and you can't do much to prevent it.

On uneven roads, your truck works like any other dual wheel vehicle. The inner wheels carry more of the weight because the road's high in the middle. So, inside wheel rubber gets worn out sooner.

Cross country, some of the rocks that the road cracks dip up get bounced off the hull and onto the track. Naturally, the inner wheels, being closer to the hull, get beat up more than the outer wheels. Stuff that falls on the inner track is more likely to get driven into.

In deep mud the track hull makes a bow wave like a boat in the water, and the inner wheels get the strongest wash off the hull.

When the wheels hit a bump, the mudwheel runs twice and the road-wheel spindle flex the outside wheel twice upward, away from the track. This gives the inner wheel more of the load and, of course, more of the wear.

SFC R. M.



When you notice your inner road wheels are wearing down, switch the inner and outer wheels to equalize the wear and give 'em a longer life.

*Haystack*



Having fireworks pop off in front of you when you're expecting 'em is one thing . . . but it's something else again when they let go without you first getting the word.

And that's just the kind of surprise that could be waiting for you when you open the door to the power supply cabinet in your Nite RC van.

If everything is OK . . . the power supply harness cleans the framework as you open and close the door. But—if it's loose, the harness rubs against the framework. Pump soon the insulation gets worn away and A/C/PSA when the exposed wire hits the framework.

To check the harness once and again, if it's rubbing, loosen the clamp . . . pull up the harness to clear the clearance between it and the framework . . . and then tighten the clamp. And, if you spot any heat wiring, get it replaced.



## ON A SCORCHER ON



How about it! Is your Nike Hercules in the ... do you have a small burned spot in the middle of your PPI nozzle-the one for the acquisition antenna in your BC Van?

It's been happening to the tube—Duromet Type K1473/P1A, P20 9568-111-4116—when the tube's been in the

PPI chamber for a short time. No reason, too. The burned portions in the ground chamber section of the nozzle, or they don't heat up things.

So don't put in a replacement until the tube really goes on the blink, or the burned spot goes so big it causes up the penetration.

Special thanks to ...

...

## THE LO JOE

How all some Nike missilemen're kinda confused about when they should take the connector link assembly to the acquisition antenna. Seems there's different ways to do these jobs.

USE CONNECTOR LINK ASSEMBLY



To put a stop to the wondering ... remember there's only one place of paper you want to follow. And that's LO 9-5018-2-1 (20 Mar 59) if you're in an Ajax world ... and LO 9-1416-126-420 (7 May 59) if you have Hercules. And they say you take the connector link assembly annually.





## AIM IT DOWN

Next time you're looking at the cable connections on the inside of your Nike radar and acquisition antenna, take a squint at the triple-coated cable connectors.

The silver connector seems to be facing toward the ground—not the sky. When it's aimed upward, the cable gets a stress link which means faster results. The link develops where the cable comes out of the connector.



## LIGHTS OUT?



Your Nike Hercules could use one of these that's been wandering here or back on to the lamps that light up the early warning plotting board in your DC unit.

Instead of wandering... do some wandering—over to change 5 of TM 9-1490-250-10. The change lamp that's used in the warning light fixture that's been put in the radar system from 1104 up. Systems below 1104 were left out of the picture.

It's called a GE-1001 incandescent lamp, P/N 9249-100-4278, and it comes from the Engineers.

## NEW NUMBER

Here you go... some of the latest scoop on your Nike radar test set.



The synthetic-coiled transformer that shows up in your GM TAME T-4 (Jan. 60) under ESN 9943-11-1126 has a new stock number. And that's P/N 1458-162-4613.

## ON THE RIGHT TRACK

PSY won't let  
the car wander  
on the track.

So you're up a tree about what check down to use with what Nike-Hercules missile and target tracking radar.

You can check down over 'cross here's the answer.

On systems with serial number 1219 and up ... and systems below 1219 that've been modified by SPOC NYS-94 116 Sept 80 ... use DA Form 5-91 for daily ... Dist. Form 5-96 for weekly ... and DA Form 5-97 for monthly checks.

And on systems 1081 through 1218 that haven't had SPOC NYS-94 applied to's Dist. Form 5-94 for daily ... Dist. Form 5-95 for weekly ... and DA Form 5-96 for monthly checks.



## BY LOCAL PURCHASE

Save yourself the trouble.

You can look through all sorts of publications—but you won't find any Federal stock numbers for the components or replacement parts for the electrical nut runner and screwdriver used in assembly area at your Nike site. That's the tool that shows up in SM 5-4-5080-407, under FSN 5130-142-4752.

The deal is that different models of the nut runner and screwdriver made by different manufacturers use in the supply system. And they use different types of checks. And, since the makes and models are different, their replacement parts can't be interchanged.



So instead of requisitioning for components and replacement parts through your supply system by FSN's, you get them on local purchase.



THE MESSAGES AROUND HERE TELL YOU WHAT YOUR TOOLS IN



# YOUR NO. 2 COMMON TOOL KIT

You wouldn't think of working around your truck with a chisel, nor would you try to fix your lights with a blow torch. But would you try to work on your jeep or drive-and-a-half with tools that aren't supposed to be used on them?

The best way to make sure you've got the right tool for the job is to use the year tool lists we compiled.

Here are the tools that you're supposed to have in your:

## TOOL LIST: ALTERNATIVE MAINTENANCE OR CONNECTIONS (Tool selected for the J. Commerce, 1988 4-Door Truck, 1988 4-Door Van)

**WIRELINE, TRANSDUCER** for use in engine, 1/2-in. dia. x 1/2-in. long



FOR 800-800-0000

140

**ADAPTER, SOCKET BRUSH** 1/2-in. diam. x 1/2-in. length x 1/2-in. dia.



FOR 800-800-0000

140

**ADAPTER, SOCKET BRUSH** 3/4-in. diam. x 1/2-in. diam. x 1/2-in. length x 1/2-in. dia.



FOR 800-800-0000

140

**ADAPTER KIT** Adapter wheel, for 1/2-in. dia. tool



FOR 800-800-0000

140

## ADAPTER KIT, ENGINE ELECTRICAL, FOR 24 in. wide-die casters, for adapters in and for, FOR 800-800-0000

140

**ADAPTER KIT** regulator harness, w/ battery terminals (1 set)

FOR 800-800-0000



**ADAPTER KIT** generator harness, w/ terminals & field terminals (1 set)

FOR 800-800-0000



**ADAPTER** ignition coil, coil and distributor

FOR 800-800-0000



**ADAPTER, SPARK PLUG** w/ threaded ignition coil

FOR 800-800-0000



**ADAPTER** jet oil (generator) wiring located through coil plug, and main field connections.

FOR 800-800-0000



**FOR 800-800-0000**, w/ spare fuses, spare fuses and instruction plate.

FOR 800-800-0000



























THE PROPER TOOL.



FOR BUSHING

09

THE BEST insulated lead breaker, 22 in. working length for the 1/2 in. F32.



FOR STRIKE BACK

09

THE BEST 12 in. working length for the 1/2 in. F32 in steel.



FOR 1/2 in. F32

09

THE BEST one lock, 1/2 in. F32 in 1/2 in. F32.



FOR 1/2 in. F32

09

THE BEST FOR THE TOOL.



FOR 1/2 in. F32

09

FOR WIRE REMOVAL ELECTRICAL

FOR 1/2 in. F32 0 09

WIRE REMOVAL FOR 1/2 in. F32 09

FOR 1/2 in. F32 09

FOR 1/2 in. F32 09

FOR 1/2 in. F32 09

FOR 1/2 in. F32 09

FOR 1/2 in. F32 09

FOR 1/2 in. F32 09

FOR 1/2 in. F32 09

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FOR 1/2 in. F32 09

FOR 1/2 in. F32 09



FOR 1/2 in. F32

FOR 1/2 in. F32

09

FOR 1/2 in. F32

FOR 1/2 in. F32

09

FOR WIRE ELECTRICAL CONNECTION

FOR 1/2 in. F32 09



FOR

FOR

FOR 1/2 in. F32

09

FOR 1/2 in. F32

09

FOR 1/2 in. F32

FOR 1/2 in. F32

09

FOR 1/2 in. F32

FOR 1/2 in. F32

09

FOR 1/2 in. F32

FOR 1/2 in. F32

09

THE BEST OF THE BEST FOR WIRE REMOVAL and general use in 1/2 in. F32, 1/2 in. F32, 1/2 in. F32, 1/2 in. F32.

FOR 1/2 in. F32 09



FOR

FOR 1/2 in. F32

09

FOR 1/2 in. F32

09

FOR 1/2 in. F32

09



FOR

FOR 1/2 in. F32

FOR 1/2 in. F32

09

FOR 1/2 in. F32

FOR 1/2 in. F32

09

FOR 1/2 in. F32

FOR 1/2 in. F32

09

FOR 1/2 in. F32

FOR 1/2 in. F32

09

WRENCH, BLINDER, 47-5000, 1/2" DRIVE, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 47-5000 SET

1 SET

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

2 SET

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

001

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

4 SET

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

4 SET

WRENCH, 1/2" DRIVE, 1/2" DRIVE, 50000, 14-in. to 16-in. combination, 1/2" drive, 14-in. and 16-in. flat jaw other end.



FOR 1/2" DRIVE SET

2 SET



**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 3/4-in. 1/4-in. wings, 7/8-in. by overall, light end of 10.



**FOR 100-01-0000**

**1 100**

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.



**FOR 100-01-0000**

**100**

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.



**FOR 100-01-0000**

**1 100**

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.



**FOR 100-01-0000**

**100**

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.



**FOR 100-01-0000**

**100**

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.



**FOR 100-01-0000**

**100**

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.



**FOR 100-01-0000**

**100**

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.

**FOR 100-01-0000**

**1 100**

FOR	Openings	Length Overall	Pin
100-01-0000	28 & 28	4 1/2	3/4
100-01-0000	28 & 28	5	3/4
100-01-0000	28 & 28	6 1/2	3/4
100-01-0000	28 & 28	8	3/4
100-01-0000	28 & 28	7	3/4



FOR	Openings	Length Overall	Pin
100-01-0000	28 & 28	7	3/4
100-01-0000	28 & 28	8 1/2	3/4
100-01-0000	28 & 28	10	3/4
100-01-0000	28 & 28	11 1/2	3/4
100-01-0000	28 & 28	12 1/2	3/4

**BRANCH OPEN END, TRENCHER** 44 type, 28 openings, 1/2-in. 1/2-in. wings, 7/8-in. by overall, light end of 10.

**FOR 100-01-0000**

**100**



FOR	Openings	FOR	FOR
100-01-0000	28	100-01-0000	100
100-01-0000	28	100-01-0000	100
100-01-0000	28	100-01-0000	100



# NO MORE

# RIPPED COVERS



Dear Sirs,

We have come up with something that could save the Army millions dollars a year—besides ending the annoyance of ripped gas shield covers on all of the M-48 series tanks. First of all, it is easy to make and put on.

The gas shield covers get ripped by the top-edge of the front storage compartment lid and sometimes the storage compartment lid itself is damaged.

This happens when you leave your gun elevated and you traverse the turret while the lid of the front storage compartment is up.



We have made steps to bolt on both the right and left storage boxes. These steps are made from pieces of 1/4 inch steel, 3/8 inch thick and 27 1/2 inches long and you need two for each storage box.

They are drilled and bent like in the illustrations. No part of the vehicle has to be welded or drilled to install them. They can be bolted on or taken off in just a few minutes.

With these steps in place, when the revolving turret rotates the storage box doors, they will fall closed instead of tearing the gas shield covers.

We figure that these steps would reduce the ripping of gas covers thereby saving a lot of money for the Army and a lot of headaches for the gun crews.

AL-141 Leonard Bellini

Fort Knox, Ky.





Dear Editor,

We have come up with something that would save the Army company dollars a year—by eliminating the necessity of ripped gas shield covers on all of the M4G-series tanks. First of all, it is easy to make and put on.

The gas shield covers get ripped by the top-edge of the front storage compartment lid and sometimes the storage compartment lid itself is damaged.

This happens when you have your gun elevated and you reverse the turret while the lid of the front storage compartment is up.



We have made strips in both on both the right and left storage boxes. These strips are made from pieces of 1 1/2-in-steel, 3/16-in-thick and 2 1/2-inches long and you need two for each storage box.

They are drilled and bent like in the illustrations. No gas of the vehicle has to be welded or drilled to install them. They can be bolted on or taken off in just a few minutes.

With these strips in place, when the revolving turret strikes the storage box doors, they will fall closed instead of tearing the gas shield cover.

We figure that these strips would reduce the ripping of gas covers thereby saving a lot of money for the Army and a lot of headache for the gun crew.

M/1sgt Leonard Salton  
Paul Kwan, Cp.



## A RIM AND BODY GUARD

Dear Editor,

Any outfit's shop doing its own tire changing chores will appreciate the convenience and safety of a rim inflation rack.

The idea for this item is simple, but a lot of people just don't get around to making one, I guess. I know we didn't have one around, and we've just recently got one for this shop.

The rack is simple to make, and the shop mechanic can turn one out anytime after a trip to the metal shop at the salvage yard.

All it amounts to is a metal cage of some sort, high enough and wide enough to house any of the store's responsibility for, and strong enough to absorb any rim in the event it should blow loose while a tire's being inflated.

That's a helluva outfit, and it works just fine.



It's made of various lengths of 1½- and 1-in. metal rods welded to a metal base, which serves as a floor and a base for the rack. The rack measures 5 feet 8 inches high, 5½ feet long and 14 inches wide. The 1½ in. metal plate base is 2 feet wide and 4 feet long.

CWO Jacob E. Tate  
 Aberdeen Proving Ground, Md.

## MY BUSTED BACK!

Dear Editor,

The attached photographs show one good reason why dump truck drivers should never rock or shake their vehicle to dislodge a load.



Edward W. Hogan  
 Niagara Falls, N. Y.

## *Jonnie Rodd's* BRIEFS



### *Avoid troubleshooting lines*

Before you check or replace any number of typical vehicle's accessories, luxury indicators, fuel gauges, temperature gauges, sending unit, switch, circuit breaker, cluster gauges or any wiring that go with these items, be sure you follow the latest troubleshooting data. It's in TR 9-2300-128-20 (July 82), following file 7E instead of your TR's map area for accessory work plus many good electrical items from the junk pile.

### *Filters filtering?*

Highly important—your keeping your intake air conditioning filters clean. There's good news on steering-rod-end filters in para 42 of TR 9-1490-210-20 (Oct 75). And Ajax calls it! And the same kind of info in para 97 of TR 9-2020-1 (Nov 57) and para 43 in Change 1 (Jan 65) in TR 9-2018-1.

### *For dress only*

The word is that some guys still wear their nylon jumps UP outdoors for field duty when this garment's designed only for use with spandex and dress valises. Equal man'll stand up to rough treatment. Even a cartridge belt'll put a mighty strain on it. So hear this: Whenever you're wearing fatigues or galling field duty, use your pouch or Sholex 107 synthetic-saltier release... you'll want to see para 1106C2 of AR 675-5 on this.

### *Try a crawfoot*

You with vehicles that have water-proof ignition systems—been wanting to include trying to remove the spark plug for easy connections on the distributor? One way and the best way to remove these hard-to-get-at cable connections is with a Wrench, Crawfoot, Ignition Spanner, FSM 2120-775-0085. The craw-foot wrench is usually found in your vehicle's Special Tool list A and B.

### *Dipout pivot*

Take off a bit on the rough stuff, you guys who've been slandering those Hill machine gun tripod assemblies on the ground when going into position. They're pretty rugged, all right, but not as sturdy as some guys seem to think. A hard knock can snap the brazed area between the locking end pivot and'll keep the tripod from holding fire.

### *Check those nuts*

Say... here's a question for you if you're in the crew of an M50 self-propelled 155-mm gun or M51 self-propelled 8-in howitzer. Is there any kind of looseness to the recoil rod and coupling nuts on the recoil cylinders? If there is, get word to your support unit before you do any firing. They have the word from Ordnance Weapons Command people on what to do.

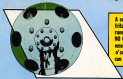
*Would You Stake Your Life on  
the Condition of Your Equipment?*

# SEEP- GO



A seal's working right when it lets a state of tube come thru — GO.

# LEAK... NO GO



A seal's on the brink if the tube runs out — NO GO except emergency, of course! till it can be fixed.