

Issue 173

PS

1967 Series

THE
PREVENTIVE
MAINTENANCE
MONTHLY

CHECK THE TANK
AND, UNEXPECTEDLY,
THINK ABOUT THE
BETTER WAY TO
KEEP THE ROAD
FROM **TRUCK**



1967 SERIES

The last few weeks had kept her busy dealing with a lot of pie guys about your maintenance and supply problems.

You'd never believe it, but the one thing that's bugging her and their out-fits everywhere is publications. He had manuals, old and out of date manuals, or the wrong manuals for the equipment at hand. A situation like that is bad . . . for maintenance and for getting the right repair parts.

The big thing to remember about getting your manuals is this . . . You'll never get 'em unless you order 'em.

That's right, most pubs nowadays are distributed on the popular system, and your cleaning company, battery, tarp or department won't get the pubs on pin-point unless you keep your pinpoint forms right up to snuff.

My-own! Get by checking 'em over at least every 3 months. If your equipment, tools, or TOE change, your publications orders on the DA 12-Series forms have got to change. The Publications Center won't know you're got a new model multi-fuel truck or a new kind of weapon unless you tell them . . . on the 12-Series forms.

Keep those publications order forms up to date. And this includes any change in your address.

Also, when you need more pubs, then your stuff received, or you need new ones to replace worn or lost copies, send in the order on a DA Form 17 to the Publications Center. For more details, see DA FORM 330.00.

Having the know-how is half the maintenance battle. And a good, up-to-date TM gives you that know-how.



MAINTENANCE KNOW-HOW



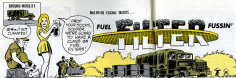
COMES FROM

UP TO DATE **TM**'S



<p>FOR ORDER INFORMATION CONTACT DA FORM 330 (REV 12-82) IN THIS ISSUE</p>	
<p>GENERAL AVAILABILITY 12-1</p> <p>DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82)</p>	
<p>RESTRICTED AVAIL 12-1</p> <p>DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82)</p>	
<p>NO AVAIL 12-1</p> <p>DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82)</p>	
<p>COMMUNICATIONS 12-1</p> <p>DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82)</p>	
<p>GENERAL AND SUPPORT 12-1</p> <p>DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82) DA FORM 330 (REV 12-82)</p>	
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Let's face it—whether it's your filter or your fuel, you just gotta be extra busy to keep things running smoothly.

Clean fuel and dry tanks are your best protection against fungus, bacteria and infection.

Water and dirt are your enemies too in your 240-ton or 3-ton modified truck's fuel system.

Water in your fuel—especially diesel fuel—is a recipe for fungus and bacteria growth that'll plug your filter elements solid, and when water reacts by your filter, it gets hot your fuel injection pump and runs those thirty-million gears.

Dirt is like a sandblast when it goes down your high-pressure fuel injection pump, grinding and throwing away at the innards of a pretty expensive piece of equipment.



You can head off some dirt by being mighty careful during refueling. But nobody's come up with a way yet to keep water out of your tank's fuel tank or to keep this water out from overflowing in the tank. You can help out by making sure your tank's fuel level is off ways at or above in the FULL mark. That'll hold the air space to a minimum.

Water seeps in from fuel and settles to the bottom. So do the heavier bits of dirt. When possible, you should drain this stuff from the bottom of your fuel tank—about once a week should do it or always when required by local conditions.



When contaminated fuel gets in your fuel lines, the filter elements trap the dirt that's moving too fast or is too light to settle out. But it's that water and dirt sludge on the bottom that you've got when you—

DRINK PRIMARY DRY
Your 240-ton 41 series or 42 series truck already has a drain cock on the primary filter. So do the low-production model 3-ton 42 series trucks. But your 2-tonites with the orange-type primary filter may have only a drain plug. TB



778-911-173 (Apr 68) is the authority. Check article, page 87 for your regional national mechanics or drill and tap the

plug and install Cork, drain, P38 4826-208-0000 or 800-483-0091, 11.50.

Before draining your tank truck's secondary primary filter, give the handle on top 2 complete turns to scrape the dirt off the filter element.

Drain that into a clean can or other approved container. Then check it close for signs of water and dirt.

If you spot any contaminants—



If your 2-ton truck's filter has a drain plug, you can have it replaced with a drain cock (same drain cock and same authority as for primary filters).

Water or dirt made' out of the secondary filter is your signal to—



If you revealed your eyes before, looking for water and dirt in the primary and secondary filters, you really

bag. You see now. This is the last filter before the fuel goes into the fuel injection pump.

Pour some kerosene into a clean glass jar or bottle and let it stand for a few minutes. Then see if there's water in the bottom or dirt specks floating around.

Fuel filter at this stage means you step out for your organizational mechanic to do a thorough job of—



Good directions on cleaning Fuel Filter and changing elements are in para 77 of Ch. 2 (Doc 41) or TM 9-1120-209-20 and in para 61.3 of Ch. 3 (Doc 41) or TM 9-2130-211-20.



Since the only reason for cleaning filters and replacing elements is to get foreign stuff out, it makes sense to be doggedly careful not to get dirt and other junk in while the filters are being serviced. That's a matter of life-and-death for your fuel injection pump when servicing the fuel filter.

As more insurance against constant road fuel getting past your filtering system, clean the primary filter at least once a month and replace the secondary and fuel filter elements at least every 1 month or 1,000 miles. The primary filter element is replaced only when it's damaged or so plugged with dirt that it can't be cleaned.

DETROIT DIESEL

2 1/2-In. 41-cube or 43-cube
D17-413 engine to 42 — (3 4/8) 1
cups to 42

Filtery — filter element, primary fuel filter, P/N 794-794-1158, kerosene oil, fuel filter, P/N 794-479-279

Secondary — Part 41, fuel filter element, P/N 794-794-1158

Fuel — Same as secondary

3-In. 43-cube
D17-433 engine

Filtery kerosene-type — filter element, fuel pressure, P/N 794-794-1158, kerosene, secondary, see either P/N 794-794-1158

Secondary — Part 41, primary fuel filter, P/N 794-794-1158

Fuel — Same as secondary

D17-433 engine installed per
T-2-2-79 9-2130-211-20

Filtery kerosene-type — filter element, fuel pressure, P/N 794-794-1158, kerosene, secondary, see either P/N 794-794-1158

Secondary — Part 41, fuel filter element, P/N 794-794-1158

Fuel — Same as secondary

D17-433 engine installed
if protected

Filtery — filter element, primary fuel filter, P/N 794-794-1158, kerosene oil, fuel filter, P/N 794-479-279

Secondary — Part 41, fuel filter element, P/N 794-794-1158

Fuel — Same as secondary

DETROIT DIESEL

Don't be surprised if the element you get in filter element, primary fuel filter, P/N 794-794-1158, looks different from the element you're replacing. You may get a Shell's (Part No. 052004 or 051754-01), a Esso's (Part No. 4088) or a Fuelstar's (Part No. 444402). They all serve the same spec and do the same job.



OIL FILTER LEAK



Too much torque on the oil filter element cover can lead to a leaky oil filter on your 2H-400 or 5-000 multigrade engine truck. Part 58 (B-F) on the list—no more so you'll make the gasket to please.

This torque and other good info for organizational maintenance types is in TM 9-2815-11A-F1 w/Ch 1 (May 60) Ch 2 (Jan 60) and Ch 3 (Nov 60) for the L26-405-1, L26-405-1A and L26-405-1 engines, and TM 9-2815-284-11 (Feb 61) for the L26-417-2 engine.



THE GASKET COMES IN PARTS SET, OIL FILTER... P/N 2840-001-0002



DIPSTICK FOR MULTIFUELS



THIS IS THE NEW ONE... P/N 6680-001-1154

You're behind since if you don't have Gage, and up, liquid level, P/N 6680-001-1154, in your 2H-400 or 5-000 multigrade engine truck. This new dipstick replaces P/N 6680-001-1154. The new one has the FULL mark at 2 1/2, in from the bottom of the dipstick screw cap. It's in TM 9-2815-284-30P (Jan 61) for the 2H-400 A1-series, in TM 9-2815-286-30P (Sep 60) for the 5-000 A1-series, and in Ch 1 (May 61) w/other TM for the 2H-400 A2-series. And it'll be showing' up soon in the TM-287's for



other vehicles. You'll see that same P/N in Ch 1 (May 60) or TM 9-2800-115-30P (Nov 60) with Gage, oil pressure. It's a dip, much—honda, the dipstick isn't a FULL from anyway.

GASKETS FOR METER



That's what you do when replacing the yellow gaskets on your MHC or MHC-117-size fuel tank truck. Part 264(2) in TM 9-2100-200-20 (Apr 66) says so.

But where do you get the gaskets? You get Gaskets, Bags, PIN 3150-812-1188, listed on page 279 in TM 9-2100-200-118 (Apr 65). After this listing shows the gaskets going with the delivery pump, there's the same gasket you use with the meter.

If you've got an MHC-117 meter, your meter comes Gaskets, PIN 3150-812-1188, listed in Ch 2 (Sep 65) in the -118.

WITH EASE, PLEASE

Nothing like a snug fit when water. But when water might be hard to come by if you make with the muscle in tightening down the filler pipe cover on your MHC water-tank trailer.

You want to tighten the wingnut just enough to keep the cover snug against the rubber seal. Too much torque and you'll put cracks in the fiberglass tank—below the seal. And—until your support people can discover repair work—cracks can be tricky and expensive.



FOR BETTER TRUCK...

STRETCH YOUR WRENCH

I THINK
WE'D BETTER
GO SOMEWHERE
STRETCHING.

You'll get a new lug wrench out of these days for your M1114L 20-ton semi-trailer if it's got those new, longer wheel studs. FON 1-800-675-7189 and 1-800-874-7186.

But you can get your support to the front power wheels, FON 1-1-800-662-0017, as it'll make for enough to connect and install the lower nuts on those new studs.



IT'S DETERGENT ALL RIGHT

Next time one of your fellow mechanics wants to know if CE-10, -20, -30, -40 is detergent or not — tell him yes. The title of our new MIL-C-21048 is: "Labeling CE, Internal Combustion Engine (Heavy Duty)." The Heavy Duty (HD) part means it has a detergent additive, among others.

M111 1/4-TON SERIES TRUCK

NON-SUPPLY PARTS

Dear Bill/Max,

Why are there so many non-supply parts on the list of 111 codes used? Every part is bound to wear out sooner or later, but replacements for many parts aren't available in regular supply channels.

Do we're concerned to determine where the maintenance — for what do we do when the parts aren't here?

W. C. J.

J. POLINO
& W. H. HENRY
ROBERT PINKS
& THOMAS
MAGNUS

AR 750-2300-11

Dear Sergeant J. P. J.,

There's one small you, in organization maintenance, are do about a lack of replacement parts, except for doing your best preventive maintenance to make all parts last as long as possible.

But there's no reason for your maintenance policy causing one of M111 replacement parts. In fact, this system of supplying M111 parts is required — by AR 750-2300-11.

This AR established a maintenance and support policy especially for the M111 and all other members of the G300 series 1/4-ton truck family.

A carefully controlled system of cannibalization prescribed by this policy is designed to keep your own policy stocked with replacement parts — even if, in a few years, you're unable to do this have to be "washed out" so to do it.

More than any other item of Army equipment, your M111 1/4-ton truck depends on cannibalization for many replacement parts. This is not an accident or a slip-up in the system — it was planned this way and has to be carried out this way.

TR 750-255-114 (Rev 44), pages 117-128, describes the M111 maintenance and support policy in detail. The TR points out that the 1/4-ton military-type truck is the nearest thing to a vehicle that's away from the Army base.

Since the M111 is a FIMLA item based item, replacement of "worn out" or "washed out" vehicles does not put a financial burden on your command. It now can not only support the fleet but usually and automatically support the fleet with the latest, improved production models.

Efforts to extend the life of an M111, beyond what's reasonable and practical, just builds in the long run, spending the special M111 maintenance and support policy. It's the old story of "penny wise and pound foolish."

Your best part must carry an adequate supply of M111 replacement parts — it's a command responsibility.

Handwritten signature



FUEL PUMP SAFETY SWITCH

LOOKIN' FOR TROUBLE?
HOW ABOUT THIS!



A mechanic isn't necessarily trying to pull a fast one he's looking for trouble. He may just be trying to figure out why the fuel pump suddenly quits pumping gas in an M151, M-400 truck, M100 ambulance or other GM08-series vehicle.



Its troubleshooting includes a check of the fuel pump safety switch. This switch cuts off power to the fuel pump if the engine oil pressure falls too low. A drop in oil pressure could cause serious trouble in the engine—and even worse trouble if the engine keeps running. That's why the safety switch.

But maybe the safety switch is giving more false alarms. Maybe it's the switch itself on the fritz—or the engine.

The under-pump you're familiar with the safety switch reading somewhere on page 58 in TM 9-2330-216-30 (Apr 93).

REFLECTS CHANGE

No more foggy or gas-bleed reflected your view M151A1 M-400 truck, look! This great new bubble-bleed sheet (polyurea, polyurea, polyurea—00101-A) is clear. Serial No. 28-0000 aren't supposed to have side reflectors.

And if you've got bubble-bleed side reflectors, don't worry about replacing 'em. Just show 'em away and forget 'em.

NOPE! NO!



ONLY HALF-SAFE?

If it hasn't happened... it could to the wire.

AS M151-series heavy trucks made after Serial No. 28-4754 have a new type parking brake handle—one that works on a cable to release the brake instead of a push button and cables. Like with the older kind. And when the driver's seat is tilted forward, the frame hits the brake design handle and releases the brake.

Could be embarrassing... so play it smart. Put your vehicle in gear when you park it—and before you think you and with the seat forward.

NEW PDK HANDLE



M151A1C GAS CAN



Instructions for mounting the 5-gal gas can and bracket on early-model M151A1C weapons carriers are on

page 103-104 in TM 750-001-175 (Jul 90). The bracket is on the left side (right over).

You'll have to fabricate some of the parts, using the bracket itself as a template for making a space plate and a locking pin.

This TM has been expanded by a few lines, but hold onto those instructions; it's the only place you'll find 'em. Never M151A1C's name with the bracket hardware already installed.

NEW MODEL M151A1C





Most parts on the M151 and M114A1 1/2-ton trucks are the same—but the rear suspension and bushing is not one of them.

That Bushing, Suspension, rear axle, FSM 15140-078-1751, you get on page 61 in THE 9-2130-2182MP (Doc 48) is solely for the M114.

If you need the bushing for the M114A1 for M151A1C or M118, you get it in Parts Kit, Axle, Suspension, FSM 15140-078-0005, listed on page 1-246, Fed Cat C250B-B-4 (Jnl 66). This kit includes 2 bushings, 2 bolts, 2 nuts and 2 cover pins.

MAGNETO FSM CHANGES!!



Some changes have been made in the Federal stock number for ordering a magneto. This is hard to know if you have an M151 VTR, an M114A2 tank or any other magnetizing vehicle other than FSM 2520-640-7741 and FSM 2520-740-1011 listed in some of the early supply manuals on your use. G.I.T. FSM 2520-120-4147 is still a good number but FSM 2520-120-4146 is the only one supply is now buying to stock the number to use for ordering. However, both Scintilla type magnetos FSM 2520-120-4247 and American Road type FSM 2520-120-4146 are still in the supply system and you might be issued either one.

SAVE SPROCKETS AND ROADWHEELS



Bliss up on this if you have any kind of combat vehicle. There are new rules. In the old days combat vehicle roadwheels and sprockets were thrown away when they got worn out. Now, a depot rebuild plan has been started.

So now, even in those areas you roadwheels and sprockets to your support unit, no matter what part of the world you're in.

This goes for M11, M12, M18 series and M19/M19A1 tanks and tank-type vehicles, the M14/M14A1, M15/M15A1 carriers and all their relatives, M17 through M19E SP artillery, M18 FV's and XM 80's.

Only exception, they don't want the old sprockets that went on M11's with serial numbers below 1224. Then there is salvage when they get worn out.

M118 REAR VIEW MIRROR

It's your only rear view mirror on your M118 "super-series" FV's, now that ... Extra

Construction Supply
Center (DTC) is here,
ask for their new mirror,
EOM 200-954700.
It replaces the old mirror,
EOM 200-954700.

HOW TO CHECK FOR LOOSE BATTERY



Dear Staff Sergeant:

Good, tight battery cables and clamp connections sometimes are loosened by CMO inspection. In fact, I've seen inspectors actually strip lead from the clamp before the rat finally leaves on the job.

In getting ready for a change inspection of my unit, I generally read a set of watches and tighten every battery cable and clamp hook-up in my spare pack. I bet I substitute for loose battery connections. It was a waste of inspection time! Would the guys all the time.

What is the proper way of checking cables and clamps for looseness?

BY P. E. A. A.

Dear Captain B. A. A.:

A heavy hand yanking on the cable and wrenching the clamp will loosen any connection, because the clamp is soft metal and is bound to give.

Tight is tight, and further tightening of the nut will melt and damage the clamp. Then the clamp will never hug the battery post like it's supposed to.

Twisting and lifting with the thumb and 2 fingers is enough to tell whether the clamp's knurled tight on the battery post.

Lifting and prying the battery cable with thumb and forefinger—close to the clamp—will show whether the terminal is tight on the clamp. Cranking the cable too far back puts more stress on the connection than it'll ever get in vehicle operation.

CONNECTIONS



WRITE THE ...



Loose connections can be caused not by cables that're too short, long cables that need support and loose battery hold-downs that let the battery slide around. Unless these troubles are corrected, cables and clamp hookups won't stay tight for long.

FOR SALES — MITSUBISHI FAMILY SCORE CARD

If you have any member of the MITSUBISHI family of vehicles, don't let you be on when someone you need for your particular vehicle.

If you have any other car vehicle, you need the someone listed for the particular job, or if it's diesel, the someone listed for the diesel job, plus the someone of any for this particular vehicle.



LIST MODEL

W 1.5 (2000-01) 1.5L 4C	W 1.5 (2000-01) 1.5L 4C 1.5L 4C
W 1.5 (2001-01) 1.5L 4C	W 1.5 (2001-01) 1.5L 4C
W 1.5 (2002-01) 1.5L 4C	W 1.5 (2002-01) 1.5L 4C
W 1.5 (2003-01) 1.5L 4C	W 1.5 (2003-01) 1.5L 4C

EX

W 1.5 (2000-01) 1.5L 4C	W 1.5 (2000-01) 1.5L 4C
W 1.5 (2001-01) 1.5L 4C	W 1.5 (2001-01) 1.5L 4C
W 1.5 (2002-01) 1.5L 4C	W 1.5 (2002-01) 1.5L 4C
W 1.5 (2003-01) 1.5L 4C	W 1.5 (2003-01) 1.5L 4C

MEET THE WAY IT WORKS BEST.

FOR NEW TRUCK JOB AND JOB TRUCK	VEHICLE	FOR NEW TRUCK JOB AND JOB TRUCK	VEHICLE
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AND ALSO	FOR NEW TRUCK	AND ALSO	FOR NEW TRUCK
W 1.5 (2000-01) 1.5L 4C W 1.5 (2001-01) 1.5L 4C	W 1.5 (2000-01) 1.5L 4C W 1.5 (2001-01) 1.5L 4C	W 1.5 (2000-01) 1.5L 4C W 1.5 (2001-01) 1.5L 4C	W 1.5 (2000-01) 1.5L 4C W 1.5 (2001-01) 1.5L 4C
W 1.5 (2002-01) 1.5L 4C W 1.5 (2003-01) 1.5L 4C	W 1.5 (2002-01) 1.5L 4C W 1.5 (2003-01) 1.5L 4C	W 1.5 (2002-01) 1.5L 4C W 1.5 (2003-01) 1.5L 4C	W 1.5 (2002-01) 1.5L 4C W 1.5 (2003-01) 1.5L 4C
W 1.5 (2004-01) 1.5L 4C W 1.5 (2005-01) 1.5L 4C	W 1.5 (2004-01) 1.5L 4C W 1.5 (2005-01) 1.5L 4C	W 1.5 (2004-01) 1.5L 4C W 1.5 (2005-01) 1.5L 4C	W 1.5 (2004-01) 1.5L 4C W 1.5 (2005-01) 1.5L 4C



FOR NEW TRUCK

W 1.5 (2000-01) 1.5L 4C	W 1.5 (2000-01) 1.5L 4C
W 1.5 (2001-01) 1.5L 4C	W 1.5 (2001-01) 1.5L 4C
W 1.5 (2002-01) 1.5L 4C	W 1.5 (2002-01) 1.5L 4C
W 1.5 (2003-01) 1.5L 4C	W 1.5 (2003-01) 1.5L 4C
W 1.5 (2004-01) 1.5L 4C	W 1.5 (2004-01) 1.5L 4C
W 1.5 (2005-01) 1.5L 4C	W 1.5 (2005-01) 1.5L 4C

M107/M110

ARTILLERY SHUFFLE

"SUPE, HELL
CRASHED YOUR HEAD
AG A WASTING EXHAUST
BACK IN THE U.S. ON A—
BUT RESERVE SOME."
TIPS FROM THE
WET WETS THAT'LL
MAKE YOU NO. 1
ON THE GUN!



TRAVELING FINAL DRIVE—The 2 M107 can do the traveling that 010s never seem to move on. Scramble guns use 1st-2nd-gear gun drive as much as the rest-of-the-work team.

Lower nose means platform wobble and poor shooting, so don't lean on. They're on the left hand side in the gun world. If the main gun frame or the tube on the back wobble out here in, will your support in the gun for you. They know how to support the main and then bend the wobble tube into the other on the main.

The lower end of both shafts and cap screws should be held during the connecting operation. Max. FPM 00000-0000-0111, is coupled to 150-200 lbs-ft, after which the final one, FPM 00000-0000, is coupled to 200-450 lbs-ft. For the drive assembly cap screw, P/N 000456, the torque should be 200-220 lbs-ft.

TRAVEL LINK—Never, do not over-tighten from one position to another without first pointing the tube in travel link. A swinging gun tube could have instability on the elevating or traversing mechanism might be damaged. For the M107 only, don't even connect the tube until you have it safely in travel link.



GET BOTH SHAFTS AND
SCREWS IN THE POSITION
BEFORE YOU MOVE.



SPACE EMPLACEMENT—If you stay in this China Sea possible long enough you'll get to try your gun on every single one of the island sides. That means a few more space emplacements than you'll need to, so here are 2 things to watch . . .



1. Be in the space by looking at the vehicle like it tells you in Chapter 7 in case of 10. Outside you could sometimes get away with shooting the space a lot from the ground a few miles and you could find your shooting positions.
2. Being the only reason the ground gets so high the space side, if that happens you might have to hold up a horizontal for the space to not so like from in Chapter 7. If the space side to sleep it starts to get up to the side, you'll have to expect it again.

POWER HANDLES—When you use any of the 5 power handles, elevating or traversing, make sure you get the handle back to its normal position before

As the gun is tested before you let
go of trigger.



you take your thumb off the trigger
switch, forcing go-of the trigger while
you still have the handle in an action
position, bring up the gun — and see
gunn' don't give the away because can.

NO-LOAD ENGINE—If you run the engine
without load, when you're charging batteries, fly-
wheel, you shorten the engine life. If you let it idle
at 500-600 RPM, keep it up to 1,200 RPM. Besides,
you can't get any real charge to your batteries unless
you keep it at 1,200 for 15 to 20 minutes. Remember,
the M107M118 has a generator, not an alternator.



COOL IT . . . SLOW—Once you've got your engine pretty hot, run it for 5
minutes at 1,200 RPM before you shut down. Back in the Old Country you could
sometimes get away not doing this, but here engines get so hot they've got to
have this cooling-off period.

HOT AIR CELLS—Here is this complex parallel, temperature vary widely.
This means the equilibrium has to be checked for correct adjustment more often
than you would at home, regardless if you're firing or not. This takes only a



ONE . . .



AND AGAIN

few seconds and then, when you get an unexpected fire situation — Is there any
other kind? — you'll be ready.

**EQUILIBRIATOR
PROBLEMS**—

IF IT'S WRONG...
HIGH, TOO HIGH OR TOO
LOW, THE ELECTRIC CIRCUIT
MAY ACCIDENTLY DRAW TOO
HEAVY A LOAD AND IT
COULD BREAK!



However, constant checking with rule and gage will cause unnecessary loss of pressure from the equilibrium.

Check the equilibrium manually. If it takes the same amount of effort in the central region to stretch or to depress the gun, the adjustment is OK. Check often to make sure you have the right setting on the temperature adjustment scale.



SLAVE STARTING.—Before starting to draw, make sure the master switch is OFF in the stored vehicle and ON in the drawing vehicle. Regardless of what some slave-two mechanics may



have told you, unless the stored vehicle master switch is OFF you are likely to burn out your generator or master relay and you are almost sure to ruin your awlbar.



GENERAL STARTING.—As soon as you always turned OFF all electrical switches not needed to start the engine before you passed on the master. This is a good habit and you won't have to change it no matter where you are in the world.



**NOBODY
IN YOUR
CUPPY
NEEDS TO
TALKER WITH
THE INSIDE
OF THE
GENERATOR!**

GENERATOR REGULATOR.—As a customer you've got enough to read about without having to worry about generator regulation. Let the battery mechanics adjust the 32 rules like it does in the 8th Ed. of TM 9-2700 2nd Ed. (Jan 65). If he can't cure the trouble, he'll replace the entire regulator.



**M107/M110
TWO-FOR-
ONE PLUG**

TWO-FOR-ONE IS THE DEAL!



M107—Cover with the plug, wait a few seconds, and then remove it both ways. It lifts (M110) or the shock will make the job even easier.

Yep! The shock plug at the bottom of the driving housing on your M107/M110 will help fix a greater number of cases.

It gives you more time, more places of work for one simple little job that'll only take a couple minutes a day.



1. Shows that you can use the driving mechanism you demand all.
2. The hole of the seal of your hydraulic system is being to job.

If you find that over half a cup of hydraulic oil leaks into the driving housing in a day have the seal repaired.

ON THE LEVEL

What's that?

You've got elevation counter trouble with the M117 always mount on your M107 SP 175mm gun. Or maybe your weapon is the M118 SP 8-in howitzer and you have the same problem—the counter doesn't read zero 00 when the display is at zero 00 with elevation.

Could be the elevation level dial is out of adjustment . . . or the elevation counter is worn or dead . . . or the main mounting bracket is twisted.

Call in your support people and ask them to come up with the answer.

Your DSM also has the answer if the receiver won't keep the variable resistance back from vibrating loose. That's



to put extra locking compound on the screw threads. You might call your support people about the steel nut on under PN 2058-271-2110 and show up in Fed Car 2088-E-4 11 for DSM.

WISE**MOUNTING
TIPS**

HEY!
MOUNT ME ON
THE WIRE, IT'S
REAL EASY!

Mounting the machine's wire, P/N 5130-283-1-026, on the fender of your MYTE recovery vehicle can be a real slick trick.

Nothing so it if the base of the wire has 3 mounting holes that line up with the 3 holes in the fender. But if it has 4 holes, like many of them do, mounting it may take a little drilling and bolting.

**WOW! NOW!**

But take both air lines out. Then remove the 3 wires so you can see where the holes are.

Line up the holes with the mounting holes in the wire base. Get a qualified welder to weld the air lines that don't line up. No need to do ... all the steps in the P-337 wire kit with Steps 1-4.

Line up the mounting holes again and using the wire base as a template, mark and drill new holes as needed. A 1/4" drill will do the trick.



Now get the hardware you'll need.

Items: 1/4" x 1 1/2", P/N 3289-135-4827. You'll need 4 of these because the 3 wires mounted on the vehicle use all four slots.



Washer, P/N 5130-800-2899; washer, lock, P/N 5130-812-2899; nut, lock, P/N 1-018-089-1246. You should only need one washer because the 3 mounted on the vehicle will do.

Before putting the air lines back, make sure that all weld spatters or metal chips have been cleaned out of the compartment.

When you have the wire mounted, put the air lines back. Naturally, you leave the blue hose attachment always face leftward and secured and the air streamer handle must lock in the center groove.

**WIRE KIT**

M35 BLOWER MOTOR MAINTENANCE



On your M35 tank recovery vehicle the engine generator blower motor is made to blow air. It does a real good job on this.

What it isn't made to do is blow water. If a lot of water gets down the air exhaust, the motor must as easy as a walk 'n' roll stinger and does quite elegantly. This leaves you with a dead-leaf vehicle and plenty of trouble.

Water gets into the air-exhaust when you shut down your vehicle with high pressure water hose.

You can prevent this by wrapping the motor with gaffer tape or old rag before you hose down the vehicle.

Course you'll have to shut down the engine before you do this and remember to take off the tape or rag before you start again. But it is sure worth it to keep your blower motor in operation.



TO SEE, IT'S LIKE THIS . . .

A few minutes (and you need to take care of a touchy deal) with your M35 package — if it's in the M113-series armored personnel carrier or M117-series command post carrier.

Since the elevation lock assembly won't hold the scope in place in the vehicle frame the threaded part of the

chamber can't touch the ceiling. And that means there's no securing the rigment.

The culprit is the locknut on the chamber — between the rigment and the head of the screw. The locknut keeps you from turning all of the screw up toward the ceiling.

THE CON: Turn the screw — with the lock nut on it — out of the rigment. Take the nut off the screw. Put the screw back in the rigment and turn until it sticks out the top of the rigment.



Threaded the nut onto the screw. The job's done when the screw has been tightened to hold the rigment in place and the nut has been set down against the top of the rigment to lock the screw.



MI13 TRACK SHOE NEWS



If you have any one of the MI13[®] MI13A[®] family of vehicles, here's good news because here's some news on shoes to clean the floor.

Turn to page 177 Mag 134 of your TM 9-2300-234-2000's (Rev. 84) and under item 1, the complete shoe assembly, for items PSM 2508-008-2001.

This PSM will get you a package of 8 complete shoes so you no longer need

to order 8 components parts every time you want a shoe.

You can still get individual components under their own PSM's except for item 4, the track shoe. That has been deleted. If you need track shoes, you must order complete shoe assemblies, PSM 2508-008-2001.

PSM
COMP'S
2508-008-2001



ELEMENT CENTRALIZER

When your M100-1700-2 or -3A tank engine's secondary fuel filter has element centralizers that look like this



ELEMENT CENTRALIZER MUST BE USED WITH THIS



... found on your support's store wall, they apply M100 9-2300-200-20's (Rev. 84). These new centralizers are needed to keep your element seal right so contaminated fuel cannot get into and ruin your injection pump.

FIREPOWER

WHY THE...

EXTRACTING THE TRUTH

WHEN YOU POP-GUN
A ROUND WITH YOUR
GUN — BUT JOGGING
THE EMPTY CARTRIDGE
DON'T EXTRACT (YOW!)
HERE'S WHAT
COULD BE
CAUSING IT:

The spent case's in the
fixed position.



Retard or broken ex-
tractor lip.



Weak, misaligned stud
extractor plunger and
spring assembly.



Just read that? The look at...

Just opening out to the gas
cylinder lock not being seated
the right way.



Worn gas
cylinder plug.



Loose gas piston.



Expanded or
separated cartridge
case base or
damaged cartridge
case rim.



Key, pin or angled
dimple.



There are extractor
and there are extractors
... and the most important
reasons under 2000, 2005,
2015-2020, it's made to
do a better job of pull-
ing cartridge case out
of the chamber ... and
able to keep from jump-
ing out of the lock.

FOR 1-800-922-9224

ONCE UPON A TM



Used to be a guy could really read quick any argument about whether the inside deflector and barrel guard on the 3.5-in. M2BA 1-inch roller launcher are supposed to be painted or oiled.

He could open TM 9-1002 and read: "Parts of the launcher from which paint has worn off will be painted in accordance with TM 9-2014. Purpose of such painting is to prevent light reflection from wear spots which may become shiny."

That might not be the latest rule on the roller launcher—TM 9-1015-204-14 (May 69), but it will hold water—except that TM 9-115 (Jul-62) has superseded TM 9-1002.

Repeating . . . any paint that's missing because of wear, use or accidental use means to be replaced with paint—oil, not oil. And this includes the inside deflector and barrel guard.

One thing, tho' . . . the idea is to go easy with the paint, if any runs down inside the barrel and takes there, you might have some trouble on the round gun to leave the launcher.

When you get enough dirt, paint and other junk in the barrel, it's like having a deer in the thing. And maybe you've heard . . . a lot of rocket launchers are getting dented because of rough handling, so easy that is.

SO NOW YOU KNOW

It can't be said you didn't get the word: No blank firing attachment is authorized for the M73 machine gun. One was developed and tried out, but it didn't work out. So, if any of you walking outside come across one bearing FOR 1000-073-1000, use it in person. Don't use it. It'll cause less routine buildup, spurious problems and a short life for components and weapons. Spread the word, too, will you?



A special set of seven volumes of *Journal of Experimental Social Psychology* has to be added to the regular package. Inquiries should be sent to: John Wiley and Sons, 605 Third Avenue, New York, NY 10158. For more information call (212) 850-6000.

RESEARCH MATERIALS

BEHAVIORAL SCIENCE
BEHAVIORAL SCIENCE is a new journal, published by the American Psychological Association, that will focus on the study of human behavior. The journal will be published quarterly. The journal will be published by the American Psychological Association, 750 First Street, N.E., Washington, D.C. 20002. For more information call (202) 336-6000.

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PINPOINT WRITE-IN ITEMS

- Buy one for each pinpoint write-in item:
- 20 Form 13-1
- 20 Form 13-2
- 20 Form 13-3
- 20 Form 13-4
- 20 Form 13-5
- 20 Form 13-6
- 20 Form 13-7
- 20 Form 13-8
- 20 Form 13-9
- 20 Form 13-10
- 20 Form 13-11
- 20 Form 13-12
- 20 Form 13-13
- 20 Form 13-14
- 20 Form 13-15
- 20 Form 13-16
- 20 Form 13-17
- 20 Form 13-18
- 20 Form 13-19
- 20 Form 13-20

- 20 Form 13-21
- 20 Form 13-22
- 20 Form 13-23
- 20 Form 13-24
- 20 Form 13-25
- 20 Form 13-26
- 20 Form 13-27
- 20 Form 13-28
- 20 Form 13-29
- 20 Form 13-30
- 20 Form 13-31
- 20 Form 13-32
- 20 Form 13-33
- 20 Form 13-34
- 20 Form 13-35
- 20 Form 13-36
- 20 Form 13-37
- 20 Form 13-38
- 20 Form 13-39
- 20 Form 13-40

JOE'S DOPE

COOL TIPS ON FIGHTING HEAT



HEAT IS THE GREAT EQUALIZER... WE LEARN TO COMBAT IT... WE LEARN TO LIVE... WE LEARN TO FIGHT!

HEAT IS MADE BY RAPID MOVING OF THE MOLECULES IN

WATER



SUN CREATES HEAT.

FRICTION CREATES HEAT.

OXIDATION CREATES HEAT.

UNLESS HEAT IS REMOVED FROM THE BODY, LIFE FROM THE BODY... IT WILL KILL YOU!

GENERALLY, HEAT IS REMOVED BY MOVING AIR.

WIND DOES

SO!

HEAT EQUIPMENT IS AIR-COOLED.

IT COOLS BY PULLING A LIGHT PUCK OF THE HEAT AND CARRY IT TO WINDY AIR CARRY IT AWAY.

IT WORKS ON INSULATION... BUT A BLOWER FAN DIRECTS THE HOT HEAT.

SO, ANYTHING THAT STOPS AIR CIRCULATION - PREVENTS COOLING!

LIKE... COATS OR INSULATION... STOP AIR.

AND... COATS... STOP AIR... STOP COOLING.

WIND... BUT... IT... HEAT THE BLADES.

THINK ABOUT IT FOR A MOMENT! ... ALL THE THINGS THAT ARE HAPPENING... ACTION ON HOUR... MUST... COULD... PRESENT... HELP... UP!

Well, the first indicator was I shouldn't checked for... General... Pressure.

... I'm... that... looking... some... pressure.

... come to think about it... when... looking... down... on... my... table... table... having... about... and... getting... fast... that... would... look... my... out... hand!

and... there... are... things... that... I... would... know... the... a... lot... more.

WELL... YOU... ARE... GIVING... THE... BEST... HELP!

THANKS... GREAT... THANKS... I... DON'T... KNOW... YOU... BUT... I... KNOW... YOU... CAN'T... HELP... ME... YOU!

Joe's Dope Sheet

FIGHT
HEAT

The Enemy Out Here
is HEAT!
It
Lowers Man and Gear
Quite Fast —
So,
To Keep Things
Quite Cool,
Use
Moving Air
all o' Time
And
Double Your P.M.
...Requirements!

KEEP DRINKING
AND INTERNAL
TANKS IN SHAPE

KEEP LUBES
AND GREASES
CLEAN AND CLEAN

UNBLOCK
RADIATOR
GRILLS

BATTERIES
NEED MORE
WATER

KEEP AIR FILTERS
CLEAN

KEEP ELECTRIC
SWITCH CIRCUIT
BANKS IN GOOD SHAPE

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

WHAT CAN WE DO ABOUT THE WIND... WE CAN'T CHANGE THE WEATHER!

NO... BUT YOU CAN DO THE BEST OF LITTLE THINGS WHICH HELP KEEP WINDS COOL!

USE YOUR WINDMILL TO FAN YOURSelves AND YOU HAVE A LOT OF STORAGE CAPACITY TO AIR STAYS COOL!

WON'T IT BE WARMER THAN IT IS?

DO YOUR WINDMILL AS WELL AS YOU CAN!

KEEP THE WINDMILL AS IT LEAVES SPACE FOR AIR TO CIRCULATE THROUGH, MAKING IT LET IT OUT OF THE ISLAND!

DON'T REMOVE TREES FROM COUNTRYSIDE GENERATIONS.

THIS ALSO GIVES YOU ENERGY WHEN YOU CHARGE THE AIR.

IT'S GREAT!

BATTERIES

WE'VE SPECIAL CARE IN THE HOT WEATHER... LIKE YOU, THE WINDMILL AND THE WINDMILL BATTERIES GETS!

IS NOT SHOWER,
YOUR BATTERY WILL
WORK BETTER
WITH A WEDGE,
BUT BATTERY!

WELL,
PUN IS
SHOWER AND
YOUR
WELL TO
DO IT?

DO BONES
BE 2-222
-300- 22?

DOIT POWER
IN THE AND
SHIRT -OCT!
THE BATTERY
FOR 2222 THE
DOES TO SHIRT
OTHERS!



IS NOT DAY TAKES A
LOT OUT OF LAZER, TOO...
DO BONES, SHIRT AND
LASEL, MORE OTHERS!



WELL,
WELL -OCT
A SHIRT
LASEL?

HOW
DO
MORE
SHIRT
IT'S
HOT?



OIL DOLMS AND
LASEL, LASEL, SHIRT
IN THE SHIRT
DO NOT SHIRT
CONSIDERATION
WELL, SHIRT!

THE SHIRT...
WELL, SHIRT...
DOES TO SHIRT...
OTHERS!



WELL, LOOK!I'VE FOUND
NEAR YOUR WEEDS. LOOK
AT ALL THE CIRCULARS THROUGH
YOUR BUSTED AND DRY!



WELL, I
LET ME
IN TO A...

HERE IS A NEW
TRIAL, BABY—
IT'S ONE THAT
YOU'VE NEVER
TRIED BEFORE.
YOU WANT ME
ALONG TO TRY?



SPLASH

I DON'T KNOW
WHAT YOU'RE
TALKING ABOUT,
BUT I'M
NOT TRYING A
DUMB STUNT.

WELL, I
DON'T
SEE THE
PROBLEM,
DO YOU?



ON YOUR DASHBOARD, IT'S...

AMBER FOR RAM, GREEN FOR FILTER

Hold on when you change a fuse: even so, blue air induction light in your Buick model indicates (L-10).

These lights are a big help to the pilot, so you can't just figure it's a warning and deal with light—amber or green—just into the cockpit. Some amber lights have been found in the blue sockets and some green lights found in the red sockets. . . . Don't see the way they're supposed to be, continue read.

A side-by-side look at the air filter circuit, fig. 12-45, TM 54-1510-201-20 (Apr 66), shows that you're not supposed to plug amber or green fuses with these lights.

The bulb for ram air is amber (item No. 507-515). For filtered air your bulb is green (item No. 106, 11-6).

If you have to order these bulbs you'll find 'em listed in Ford Car CR200-12-4 (Jan 66) on pages 4-117 and 4-118.



HEY, THOSE GREEN
AND AMBER LIGHTS
KEEP FLASHING
AT ME...

YEAH, THAT
HAPPENS EVERY
TIME COME
COMES AROUND!



COMPRESSION CHECK, OIL CHANGE



Dear Whady,

Before I develop a case of syphilis can you tell me what job calls for a compression check on my Landolt engine?

Also, the 1968 TM 20-1270-201-20 called for an engine oil change every 40 hours. Now, TM 20-1110-200-20P02, requires 0.12 calls for a 20-hr oil change.

What gives?

W. J. P.

Dear Specialist W. J. P.,

The compression check should be pulled every 200 hours (annual periodic) and TM 20-1270-201-20P02 is being updated to show just that.

TM 20-1110-200-20P02 is also being changed to show the oil change every 20 hours (annual intermediate).

TURN IN EXCESS WHEELS



LEAK STOPPER — JOHNNY ON-THE-SPOT!



OFF
ON →

Star Editor

Like Johnny with his fingers in his eyes, we have come up with a field fix to stop leaking fuel and leaving parking to our aircraft engines.

The Boeing Q480 and Combside Q480 parking lock in its time. Most you have to take all the rubber feet covers, rubber arms, push rod and housing, in part to your parking, P/N 44700. This is a real show.

In rubber when using a lot of man-hours on this machine, we come up with an aluminum washer, P/N 440000104, P/N 10101001-2484, and use it on the rib.

Now, when a leaking parking shows up at the engine housing, in a matter of seconds we simply slip one of these washers between the ground tube spring, P/N 44710, and the rib washer, P/N 44700.

The aluminum washer inserts the tension against the parking and stops the fuel, usually all the way to engine TBO. . . . works like a charm!

Donald F. Smith
Fort Ord, California



Old Man — Good job!

HOW TO GET THEM

JUST
ONE
PER AIRCRAFT

TM 1500-1

If you haven't received TM 1500-1, U.S. Army Operator's & Crew Member's Check List to Landing Mission, please check with your gulf office. He should have an order blank issued by the AG Publications Center, Ft. Lewis, for getting this blank. Only one is authorized for each aircraft.

If the order blank didn't make it to your unit, use a DA form 17 with your gulf account number.

FINGER TIGHT — PLUS



Dear Whoddy,

Many times maintenance guys say to tighten a nut or bolt finger tight plus one revolution ... like that, P/N 483344111, on the push-pull tube between manifold and exhaust pipe of the ballcock on the C65 L35 engine mount.

If maintenance is caught in the middle on this tightening deal, one pilot on his walk around will say the bolt or nut should have under a hand pressure about while another will say it should not, too.

What do you say, Whoddy?

BOB W. B. L.

Dear Sergeant W. B. L.,

Under the finger-tight-plus-one deal, your bolt or nut should not turn because you use a wrench to get the one revolution.

To prevent loose bolts and nuts be sure the bolt head is firmly seated against the mating surface when you put it in. Then run the nut up finger tight, make with the wrench and add your extra pin. That's all there is to it.

Whoddy

SAME PLUGS ... NEW TB

In case you missed it, the latest list of spark plugs for aircraft engines is in TB 91-2041-286-05 (Feb 66). This TB replaces the old TB AFM 21-8 plug list, which is about the same as the current list.

THE FINE CHANGE HAS PUTTING THIS TB UNDER FEDERAL AIRCRAFT CLASSIFICATION. AIRCRAFT ENGINE ELECTRICAL COMPONENTS.



EVERY LITTLE DRIP HURTS

REPAIRING
CRUISE...

NOT WITH
THE PLAN
IT WON'T.

How to Fix It

Anytime a Chevrolet (300-400) is parked for any length of time you have to run up the engine to a lot of oil flows from the oil pan, distributor, engine breather and other low-yes, they're the drain tubes.

A problem arises when this oil runs along the cooling coils the rear tire moving operation of the ply, crawling and a related tire. A drip stop has been added to the screw almost to divert the oil from the tire but it doesn't entirely cure the problem.

So, we made up this simple drip gun. It can be made out of an empty 1-gal can of oil, solvent or hydraulic oil, not in fact. To attach the gun we welded a 100-in. piece of metal 1/2-in. by 1 1/2-in. to the center of the gun.

Finally, we painted the outside of the gun red and attached a "remove before flight" marker in white on both sides.

Attaching the gun to a frame. We use two steel bolts to secure the gun to the existing threaded holes in the rear landing gear housing.

No more related tires for oil flow when we use this handy little drip gun.

Charles W. Stewart

New Cumberland Army Depot



Oil Flow—Your field fix looks real good. A red shell "remove before flight" marker might also be attached to the gun so it would be easily spotted.

COMMUNICATIONS

GET THE POINT,
DON'T MISS

Playing the making game with your photography equipment in the outdoors and close to firearms will not only save trouble, it'll save lives.

PM can't really, however, change from dust and dirt and you and moisture lurks for the outdoor you require the equipment for action.

WOULD
YOU
MARRY?
DO IT
UNDERSTON!

Waiting for a convenient time to get to maintenance is just about the same as looking for the VC and your gear for target practice. Either way, it'll find for the wrong job and leave you empty-handed.

Do you know it, do best anytime PM points to the same particular about.

LUBRICATION

MS-4 - 5 - 4 - 10 - 11 - 12

Before you use the camera, wipe the lens dry and clean with Lens Tissue, PM 0000-101-0004, or similar material. Never clean the lens with anything that can damage it . . . and that never includes stiff brushes, coarse rags and such. If you get a tough smudge, dab some liquid lens cleaner, PM 0110-000-1175, on the lens tissue and clean away. Don't apply the liquid cleaner directly to the lens.



Uncontaminated dust and dirt that you lens, use a few careful but brisk buffing strokes with the liquid lens cleaner.

AND



AND



Always protect the lens when you're cleaning other parts of the camera. When you're through with the camera, put it back in its case or cover. For the great, use and all, it's a plastic bag if you can't find a bag, use any wrapped cover. Clean out by the camera daily, even if you don't use it. Be sure to take the lens out and clean dust, dirt, mud and moisture from it. If you forget the next possibility, you might accumulate enough to it work to put you out of business.

MAINTENANCE CARE AND TIPS

Never leave plastic gear exposed (inter-convert) and uncleaned for an extended time like, for more than a day. When you're through with the gear, clean it and put components in their respective cases.

Clean magazines, propellers and other small gear for use every day. When you find rust, get rid of it and make with the spot paint.

When possible, store all gear in plastic containers, accompanied by desiccant to dehumidify the moisture.

If you've got an AN/TTC-1 mobile lab, be sure careful. Make with some PM to prevent moisture accumulation. Keep the lab clean, the surfaces polished and everything as dry as possible. You might encounter a tarp above it, for two reasons: it'll give the lab weather protection and keep it and (especially) cool, that is.

In other words, the items on PM is about the only guarantee on getting the picture.



If the camera itself should get clean with dust, a clean pad head, some is handy for cleaning. . . . It is to use you keep that kind of look about that only has to be.

Now, let's see, we want to clean other people's gear. It's like an equivalent to what we do.

SOMETHING HOT DAMP

The sticky, soggy humidity that's waiting for you just outside your tent flap is already working on your camera equipment.

That is, it's working on your stuff specifically your camera bellows via fungus, mold and condensation if you haven't taken a few precautions.

The best way to fight the problem is with heat, dry-eyes. Like whenever you eat, and whenever you're not using your camera gear, store it in a hermetically sealed box.

FOR A CAMERA

A cardboard box, preferably one specially wrapped material over a small heat source such as a light bulb will reduce the chance of humidity damage.

Naturally, be careful not to burn your box from heat's for a dry season.

Caution, now.

Never put a camera in that warm box with this in it. How will rain film.

WORKS FINE... IF YOU KNOW HOW TO USE IT!



COMSEC INDEX

You say you're a COMSEC nut and you're busy wondering how to track down parts you need?

Read on.

The PAM 1104, Index of Commercial-Grade Security (COMSEC) Publications, is available in authorized units receiving the PAM through the simple process of filling out a DA Form 17 on

Communications Office
 21 Army AG Publications Center
 1200 Station Boulevard
 Arlington, Maryland 21103

The pack is unclassified, but it's automatically available to units needing it.

JUST LIST THE AMOUNT YOU NEED



as your unit commander, (provided, of course, you update your DA Form 17-1 by listing the DA PAM, the 1-2-4 goes to the exact address on the 17.

DA COMSEC packs cost \$1.80g US and later are on pipeline allocation, as per DA Form 17-1, AG 500-1. You need a DA Form 17-1 for pipeline, and it goes to U.S. Army AG Publications Center, 1200 Woodland Road, St. Louis, Missouri 63104.

FOCUSING IN ON FM

TRIALS WERE STUNNING! SCORE WITH T&C



Scientists may be a joy for you but keep it away from your nightgown straps (190M 1000-000-0004).

You can't let it in even the straps in its carrying case, especially when you're putting it away or transporting it in a vehicle.

The much expense to weight is heavier in the bed of a truck will damage your straps and leave you in the dust. Highly risky.

And, when you're using the carrying strap make sure the lens cap is on the objective lens to keep out dry light, dust and dirt.

Finally, remember to release the locking lever before turning the focusing knob. You could snap the handle and you'd wind up with a strap and heavy focus.



Picture this: The push is over. Rough days are behind for awhile, and steel troops are hunched around a movie screen waiting to log-eye the world news they'll come to life thru the magic of a movie projector.

The film's got a No. 1 rating, and everybody's anxious. Screws are even greasing.

The operator slips the reel in place, makes some preliminary adjustments, gives the power to the projector and . . . nothing happens!

Damaged gears from the troops also from the Mong to the China. The operator, after some useless attempts to get the show on the road, is lucky to escape with his life.



Lack of adequate PM still is another problem. It's an old story.

The only thing new is that some places thought they could get by one more day without PM in a place where lack of PM can do more than knock out projectors.

The humidity, mud and sand of

Charlie country can put the top-to-pro projectors about as flat as a boiler . . . and you don't even have to give it half a chance for that combination of gunk to get to your equipment.

What to do? Read on for the kind of PM that'll make your projector put out No. 1 reels.

Use long vent pipes to fit over when you're not using it.

Frequently check the surface for wet areas or dripped paint. If you find any of these facts, get you corrected.

In case possible, wear and use an oxygen down hole.

Card and, for you, some, how should be free of oil, dirt, paint and other good stuff. Use, don't getting a new one if you're get hard or damaged one. Don't eat off the dirt and use clean you time.



Keep the water surface clean of mud, dirt, dirt, oil or other good stuff. Use a rag or sock. Keeping the sprayer with water use to make sure that good.

And, if water or water, that for use for hard get you replaced or repaired before they reach the "no clear" stage.



Keep the water to clean the line and to filter, but to keep you clean. About all you can be handled with less than with in the 200-250-400. In tough cleaning job, you might need to use that a liquid line cleaner like FM 270-28-175.

Each time you use the projector, it makes solid FM gases to remove and clean the operators and pressure plants and to open and close the speakers. If the plants have developed a hard or wet, get you smoothed off. Like, it's extra important you don't get off your clothes on the plants and speakers, since they're on the film path.

As for vents, spinners and sound drums, they get pretty much the same treatment. Keep 'em clean, dry and scratch-free.

Finally, to make you have your authorized open parts at hand, get the equipment's TM. And it wouldn't hurt anything at all if operators were as familiar with FM 10-41 (Film and Equipment Exchange Operations) as



they are with the equipment TM. The FM is dated Jan 62.

It shouldn't have to be said that only trained, licensed operators should be operating the projector. But then again, it shouldn't have to be said that FM is just as necessary as a trained operator.

Good viewing! www.military.com





GENERAL

WHY? GOOD STARTS WITH

YOUR MITY MITE



I THINK OL' CHARLIE'S OWEN' NOY... SO GET 'EM, SPYGLASS.

This distributor, non-grease, joint gas and needs dispenser you call a Mity Mite is a good thing from the great garden. It'll put out lots of GAS (single meaning if you take care of it).

Keeping the Mity Mite always takes good PM on 3 things—Engines, Blowers, and Ripper-Blow setups, and making sure after each one that all screws, nuts, and bolts are good and tight.



MITY MITE BLOWER



ENGINE OIL

There's lots of kick in that side-cylinder lightweight. Filtered air, good oil, and a few special tricks will keep it kicking. Make these—

OIL IN FUEL



USE THE OIL AND GREASE-FREE OIL (OIL SO) TO A GARDEN OF GAS. **WIPERS** Take 'em, up—never take 'em down. THE TRICK.

Two ounces of gasoline and 1 quart of O-20 is a 2-gallon mix. That's enough to run you about 15 hours.

Never put in over 1/2 quart of oil per gallon of gas. Doing too much of just fuel or just oil'll die.

OIL IN OIL OIL—The Tune Indicator plug at the base of the gas case is where you get O-20. Check that oil level every day. But it's just enough O-20 to float on the base of the plug hole when the rig's sitting level.



USE GOOD OIL OIL

You might have suppose would this low-head key wrench long-and-fore from the plug . . . no, but watch.

Forget that plug cap at the lower eight-head corner of the engine about 27½ inches below the spark plug. It's a lifeline from the generator duty of that engine, so hands off.



AIR FILTER BARRIER — Wash in cleaning oil and after every 100 hours operation, and it can dirty places to it more often—once every 500 if necessary.



NOISE

WEATHER SHIELD — Use a oil jacket, cloth, or two covers under the drive shaft if you have to use it on the ground. Keep leaves, grass, and sticks off that screen. Iron rusting and through will wear it up and cause repair.



WEATHER SHIELD — A piece of metal, stone, or cloth will stop your work. Use that 20000 RPM will run the wheel up and could heat the casting.



NOISE-NOISE HINTS

Use your tape, 100
\$100-400-000,
to making little
holes in the water
detergent-finger.
But it is made
the plastic coating
over the hole.



NOISE-NOISE HINTS WILL WORK TOGETHER
BUT IT'S ONLY
THE BEST HINTS

TYRE HINT — To keep it from leaking, cut it to fit snug against the D-R tube, and then rubber-band it to the upper line.



Tip — The bits work off rotation, so keep the bit tight. This also keeps your pointer dry—



AND DON' CH PEEKING INTO THE HOLE IN THE WALL EXCEPT UNDER A MASTHEAD! MAKE SURE YOU' SCHEDULED TOY & POWERS NEXT TIME.



Tip — The right in the hole won't slip off, but not so tight they collapse the plastic after adjustment. Tap can help here, too.



Tip — When you're good done, give the trigger a few more and adjust. The extra good compressed air flow can be handy. And it's good to dry out liquid so you can use pointer — but good's dry it's got to be, and that includes finger tips and other.



POWER-ACE LOW-SOUND

Good power for the job includes right automatic adjustment. On this rig it's made easy with 2 screws—

Tip — Turn it all the way in without jamming, then back out a full turn more for all the other right. Tap. All means low-speed control.



Tip — High speed is out of its throttle by turning off the motor and locking on.



You've got 5 other made-easy items to look after also —

START CABLE — If it breaks, take off only the fan housing. You won't take out the rope pulley. Nylon line is a fair replacement if a rope rope. Reassemble the **START**, but loosely. Thread rope rope through housing and tie a knot. Then cut the knot with knot tie knip if there's nothing — a month or year lighter is good. Then wind pulley up right, then look off 1 to 2 turns to allow pulley dot and rope. Put the rope in the dot, and the spring will do the rest right.



START PULLEY — That cheapie 1/4" (or even) that to be used by **START** link.



STARTER — It gets out fast, so keep all handy, always — and I usually question the matter will last longer if you take all the force to matter dump. If the matter falls off during run the only force will be more noise.



START AND RUN LINK

Cranking comes easy with the right rope — and never flooding.

1. Turn Switch ON



2. Pull-out Rope



3. Turn Handle



4. Crank all quick, that's all.



And when the switch, push check in halfway for warming, then all the way in to run. A warm engine you can start without choking. If OFF-ON switch fails, take off switch and wire straight to the engine. You can start without the switch. The map, just pull the choke all the way out.

SIZE OR POWER

Check how your valves are set before you load liquid or powdered agents, and before you get the M-17 mask on.

POWER — Two valves are the easiest to fit. Types photo show a dust guard. Then open the valves on the bottom of the power to let the dust come through at the speed you need.



SIZE — For the powder valve closed before you start working open the two valves behind your elbow at the top and leave it in. This avoids the pressure of flow with the lower pressure just behind the mask.



DEEPWORKER BLADE — One small, one large, one 1 1/2-in. long.

SCREW SET — Handle with steel flats, 1/16, and 3/16.

WRENCH — Fully adjustable.

HEX NUT WRENCH — That's the handy one you get with the glove or tape and-chlorine form.



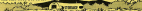
GAS CAN AND SPURT — One easy-handling kind can be a spare spurt over-chlorine, and it's tough to fill the gas tank without it.

PLUM WRENCH — For changing spurt plugs, too. You also get a spare 2 1/2 in. hose clamp, a roll of tape, and a patch book.



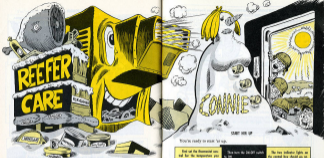
When ordering parts for Map Mine, always give the serial numbers for both engine and dispenser. "Hand-pieces" marked on the request helps, too. There's a bunch of Mine around meant to be cannibalized; if any needed part can't be had from cannibalization, then your support will have to get it through request to the US Army Ammunition and Supply Agency, 2MP&P-QWED-A, John, Illinois 61834.

Not in your kit, but super handy is a pocket handle with screwdriver blade, like POB 5110-240-5843.



Any time the Mine's gonna be put in storage, drain the gas tank, run the engine until carburetor's dry, and cover the whole works with canvas. If it needs repairs, get it fixed before storing — no walk-in-Mine delays.

Supply types will the Map Mine by its book name, which is Dispenser, Gas Control Agent, Backpack 450CTM, M100, POB 1040-761-6851.



When you're depending upon your reefer to keep your store from spoiling, that it's a good idea to play it cool by knowing the A, B, C's of its operation and maintenance.

Here's how you can take care of yours:

THINKING MODEL QUALI INSPIRATION UNIT
FOR \$118/947-8762

Don't try to move this baby unless the lifting device can take a load of at least 1000 pounds because the unit weighs 900 pounds.

OK, you've got her placed on your T-1 set level, so back off and take a look to make sure she's level. That's so your reefer's evaporator coil will keep the bearings lubed. If she's not level, they'll burn out because they don't get lubed.

You're ready to start 'er up.



Set out the thermostat and for the temperature you want.

Then turn the dial off until it's off.

The two indicator lights on the control line should go on.

The green light (UNIT ON INDICATOR LIGHT) shows your refrigeration is working. The red light (HIGH TEMPERATURE INDICATOR LIGHT) tells you the temperature in the refrigerated area is more than 4° above the thermostat control setting. That red light should go off when the temperature reaches your setting.

If your indicator lights aren't working, replace the fuse. If that doesn't help, then replace the lights. And if that doesn't do it, call your supplier.



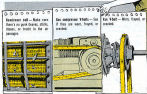
Always wear your seat belt whenever you drive. It keeps the driver safe in case of a crash. The belt is there to protect the driver using these vehicles.

Here are the fuses you need:

RC2, panel power assembly	FOR 200-070-0110
LS7, battery fuse	FOR 200-070-0100
mainline RC2	FOR 200-070-0200
RC2F, battery	FOR 200-070-0300
RC2F, BP	FOR 200-040-0700

OK, you've got your trailer running, so check the engine oil pressure. If it's under 10 pounds, stop it and send an RC2 to your supplier maintenance.

CHECK THESE AT LEAST DAILY!



Light glass... If you can see bottom of the float, there's not enough refrigerant charge in the system.



Compressor crankcase oil level gauge... Check oil level. It should be halfway or right past. Check your Lube-TRAK and add oil if gauge shows that it's low.



COMPRESSOR OIL LEVEL GAUGE

Fuel tank... Add fuel if low.



DO NOT ALLOW THE UNIT TO RUN OUT OF GAS!

This will cause the box to heat up which in turn will cause the thermostat to work harder on the engine, and then you'll have a burner out control panel. Always have technicians' always keep a check on the cooler when it's operating.

Water and lubricants... Check for drainage and hose clogging. With the unit's running make sure the instruments have normal operating readings.



Thermometer... Check the unit ON and OFF to get a dry of the right temperature setting.



Thermometer... Check the temperature of refrigerant gas.



Pressure (or high pressure) gauge... Normal reading from 120 to 135 PSI.



Low pressure gauge... Normal reading from 1 to 10 PSI.

Oil pressure gauge... 10 to 15 PSI.



Ammeter... When you check this, set your the voltmeter to get a reading and set up fans. If you hold it on you'll know how the control panel looks. (This ammeter normally shows a slight charge.)



Bottle indicator light... Check when good when unit is producing refrigerant.

High Temperature indicator light... If red light is on pull down the refrigerant level of tank or check the desired temperature setting.



Your cooler has automatic defrosting (every 4 hours of operation). If you want to use manual defrost switch, just push the manual defrost switch and release it while the unit is running. If it doesn't start defrosting, the unit will continue on its refrigeration cycle.

While you're running an eye over your cooler, take a look at the cooling fan on the cylinder block to make sure they're clean. Check the compressor for oil leaks, especially around the gaskets. Sometimes these gaskets have a tendency to leak after the compressor has been running for about 10 hours or longer.

You'll want to listen for unusual noises and vibrations while your cooler's running. If you're in a damp or sandy area, then you'll have to clean the condenser coil at least once a week—more often is even better.

You'll need to service the air cleaner once a year, too. First remove the cover from the bottom of the air cleaner body, then remove the oil cap, then take the screen out of the oil cap. Then clean the parts with a good cleaning solvent and dry completely!

Check the Lube Plate to see if you've run out any of these lube parts.

Make sure you take the condenser and evaporator fan bearings or they'll burn out in sandy or dirty areas.

It's slightly important to keep all lubes clean. There's an Oase engine (POM 2891-063-0070), in your refrigeration unit that doesn't digest sludge and grit. Bearings get moved and pitted by that gunk in the crankcase oil.

Make sure when you change the crankcase oil that you get all the sludge and grit. You may have to flush the crankcase to do this. It's also a good idea to remove the head of the engine about every 200 hours of operation and clean off the carbon deposits that have accumulated. This will give better performance and add life to your engine.

HERE ARE THE PARTS YOU SHOULD HAVE FOR YOUR REFRIG.

TEL 1-800-281-13 (Ext. 00)
 TEL 1-811-304-217 (Ext. 00)
 TEL 1-800-281-13 (Ext. 00)

BEST DRINK IS
GOOD DRINK

WHAT TO DO WITH

MILDEW

ON CANVAS

It'd be tough finding a more ideal place for growing bigger and better mildew than your recreational, wet, warm and sleepy neck of the woods.

But there's no built-in excuse for leaving that laboratory-made Fungus milk over all your current equipment and clothing.

Mildew dehydrates a combination of heat, dirt and water . . . so tents, bags, clothes and other canvas items don't stand much of a chance in your climate unless you give out with plenty of FMI help.

Keeping your canvas gear clean and dry—like the good book says—is like trying to fill an inside straight in a seven-handed poker machine . . . 'nuff!

But whether you're in the boondocks or the Big City, you have two big first allies on your side: the FMI headlights—air and sunlight.

Yep, keeping your covers up to air out and keeping it as close as possible will go a long way in making the best of a wet and sticky situation.



YOUR FRONT LINE OF DEFENSE IS... SUN AND AIR!

Don't roll up your truck covers to allow light rain water to drip 'em back down against the holes on or give a chance to molders through them.

If you're on the move—air out that tent or dunnie to your car. When you set up, make sure you don't have a branch or object pressing against wet canvas. This can cause a slow leak right now and pave the way for mildew real fast.

HEATING LAMP

All of your covers gear has been treated for water and fungus-proofing by its manufacturer, but there's got a compound that can be used to re-treat old and worn covers to help against mildew.

It's Compound, made preservatives, mildew resistance, silver eggs, paint base, pigments, FOM 8024-364-3445, 1 gallon in Red Can CROCODIL-A (See file). One gallon of the diluted compound (with preservative solvent) will cover 10 square yards of canvas.

But don't play it fast and loose with this stuff because it's potent! It's flammable and poisonous.

Don't fall into the trap of thinking that a tent treated with this compound makes it completely water and mildew-proof—it won't. But it will make it harder for mildew to establish a beachhead.

You can't pour this stuff on like spray-on a stack of flapjacks... it's lighty and carefully.

You can patch your car's floor mats in one hour if it's broken



or if it's torn on a seam, edge, or area supporting hardware.

USE THE NEW SEWING SOLE WITH THE STITCHER



SEW IT IN

You cut the patches from the canvas cloth stock in your storage repair kit.



You'll need some adhesive to hold the patch to the area, or use the adhesive, rubber, synthetic, foam, liquid foam, for seam patching.



ESK 800-368-8888 gives you a price and
ESK 800-368-275-8888 will get you a gallon.

HERE'S HOW PATCHING

WORKS — LIQUID
FOAM — THE NEW TAPE
ADHESIVE, ETC.
FOR 800-368-8888.

Do most your work in clean and dry before you do any repair work.

You use the wire brush to your storage repair kit to brush the dirt from the canvas.



Of course, you use greatest support patches by hand or machine (see big kit book).



Your storage repair kit not only has



and other items you'll need to do a most repair job. So don't forget to have your own kit as support for durable in yourself repair.

ZIPPER KID, TOO

If you're having trouble with a sluggish zipper, rub some Zipper Lubricant, FSN 11-28-000-7148 on each side of the teeth and then run the zipper up and down a few times. A new zipper will slide like a good job.

In case your zipper needs a new slide or stop, ask for Kix, Slide and Top Stop.



FIXES AND FITS

Here are the parts and kits to help you take care of your current issues:

TR 11-288, General Repair for Canvas and Working Shoes Kit, 11-288-001

TR 11-283, Service Repair Kit Top Kit, 11-283-001

TR 11-281, Patch and Sew Support Kit Top Kit

TR 11-4-210-411, Service Repair Kit, 11-4-210-402-001 Top Kit

Top Kit (11-4-210-402-001)

Kit, Slide and Top Stop, 11-281-001-001

SAVING STORAGE TIPS

ROLL UP YOUR TENT ONLY AFTER YOU'VE UNZIPPED IT UP TO THE TOP!



Roll tent tubes and poles up in a tent you're going to store. They're bound to have some moisture on 'em that'll set a hole right through your tent.

Rolling clothes on poles that you dry-to-dry are a tough enough, but the light comes into high gear when the wind comes to meet your wall.

After it's dry, get all of any spots caused by oil, grease or other junk that can give the tent a hole.



Give a special bath to the tent, make sure it's well care taken and allow grease in this area because it's a good way to get your tent ready.

NEVER FORGET IT

OK. You've done your level best to clean and store your gear, but don't quit at this stage of the game because you can't store it and forget it.

Second concern is the happy hunting ground for that propagator' parasite to fight it all the way.

Check it often and don't be afraid to move some of the boxes around — the more movement, the more air circulation and the more circulation the better your chance to kill mildew.



When you walk away these clean and dry boxes, see that the damage is as clean and dry as you can make it. Green lumber (or open another one of the thousand doors for mild) and mildew.

Never use manual handling equipment to move stored items unless you have 'em stacked on pallet boards for proper pickup. Forklifts knock 'em and gouge



boxes and this won't help your insurance program a little bit.

Get the habit of tagging all your gear before you store it away. It'll save all kinds of sweat and tears when you have clear title to you. Make the tag big enough to carry the manufacturer, PMA, date of storage and date of close it's been stored.



Finally, bear in mind that any tag supply man will try to induce you not gear on a frame, first-out basis.



E for EBR News

For your EBR News that tells collectors, try, use it. F38-209 (14 pp. 05). Collector Requirements for Tool and Machinery Equipment Used to Improve Mustang Condition Assailed. For the first time, however, you can forget about the AA's breathing apparatus listed in the TB. Complete setup on collector needs for the B's will be updated when the TB is revised.

P for Profile Pops

If you're a *Mail Reader* magazine, using GM Parts 2715, 2520, the new All 220-1 (28 Feb. 57) before your next report is due (28 June 1957). It supersedes the old All 220.1 used — except for its name and featured *Guard* units under AA 1100-B — that supersedes all 1100-1. The tools, Don Swainson, writes, were the same, but many details are changed.



BY BETTE
FELSON. AND A
MARVELOUS
POORLIFE!

Cheaper?

Only a bit! You can now order just the *Castles*, Item, P38 1248-887-8719 by your 5042-33 and 2440-33 tools holders instead of the complete set including P104 2640-177-4891. When your custom gets about 18 in. you're getting better, get more and larger ones for in the working in, and get the new custom over the seat pan, of custom and all.

Pat Huggins

There's gold in them that buy back, surely, if you've finished the job of *Spinal* your wife's. P38 reads: You won't find a better picture of just how much green, oil and fuel your car'll's equipment has used — and this gives you a pretty good idea of how much is remaining. Here, it takes a little digging, but that's the way it is with gold news.

200% Traction Safety Fix

Don take advantage out of the technology doing a job. It looks up to the corrected position on that factor, and the holder remains. Keep it water-proof right, else it'll not hold. This device is in your kit 1-12-20-30-15, but it's in the manufacturer's PM equipment in your approach kit.

Different Wheel Shapes

Your 27-inch modified engine truck (Caterpillar 41 or 45) using the same, olive, brown wood, P38 1100-304-1100. It's 10-2000-304-1100 (see 21) shows 114 1100-111-8741, but that one's for only the positive engine. Will be located as in a TB change or bulletin.

Score & T-A Score

The new GM Part 1061 (300 88 pages) by the title of *Tools* to *Any Time*, *Disassembly*, *ETs*, *Clutch*, *And* *Revolutions*. A38, P38, it supersedes the old, for SA Part 1100, which used to make DT's and others.

By the Numbers

Page 10 of the R. 1450-261, 158/211 (the 80) and the 2721 electric light code by 154 2745-272-2745, but the contains the table names in short: P38 1140-383-1129. "where's right" location, the data was given both P38, but 1062, P38-5141 in the and you want to see.

EC And DA 2401-3

Your equipment (EC) check lists in the category of "Teflon, during cold after" inspection checks. As such it is not included in Model 11 of GM 14083. But the results of the P38 check is entered separately in book 14 of GM 5043-5.

Stare 'Em Headed

There's no Jerry at either that says you don't start small ones in scale in a locked position, but, but they're locked won't do the springs are good being on the floor for a while. So, every time you take your off-roading or when your working, you, have it recorded. Off.

Not the Same

You can be surprised if you'll in the holder down — *WETTER*. That's the new *Line* from *Number* for tool kit 70-21170, P38 1180-208 2191 (see 24) 24111 which was covered (65-22940). See 10-10-55, 154-1190-898-4400, belongs to 138-84750 (see 24 17120).

This One's A Winner!

SA 3-4112-348-15 (May 56) tells about a host of power units, trailer-mounted, from 1.00' to 1.14.00, some mobility and reliability in the open — and the way for the standard part's list. Check your parts people books.

Would You Stake Your Life ^{right now} on

the Condition of Your Equipment?



USE YOUR...



TESTERS



MULTIMETERS



GAGES



LOW-VOLTAGE
CIRCUIT TESTER

OR THE OTHER GAGES, TESTERS, METERS
IN YOUR AUTHORIZED TOOL KITS.

**MAKE SURE THE PARTS YOU
REPLACE ARE REALLY BAD!**