

THE PREVENTIVE MAINTENANCE MONTHLY



WHO SERVICED
THESE BINOCULARS?

THEY'RE EITHER IN FANTASTIC SHAPE ... OR ...



...OR I'M READY FOR THE FUNNY FARM!



Page 29



Brake System

Too Much & Not

OK -- YOU'VE BEEN
INSPECTING, ADJUSTING
AND REPLACING PARTS FOR
HOURS ... JUST TELL ME ...
DO TH' BRAKES
WORK RIGHT WOW?!

IT'S LIFT-OFF



You can spend a lot of time—too much, maybe—checking out the hydraulic brake system on your tactical wheeled vehicle. You may fool around with some things that don't need checking—things that're better off if you leave 'em alone.

And when you get done, you still don't know if your brake system's in good shape. So you wasted your time, maybe did more harm than good—and put an "OK" on brakes that're **not** OK.

The checkpoints in the -20 TM's vary a great deal but the brake systems are pretty much the same. The brake system checkpoints for all tactical wheeled vehicles with hydraulic brakes should be basically the same—and they're going to be as TM revisions and changes come out.



Get With It

You can get a good idea of what's coming by eyeballing Sequence No. 15, Service Brake System, Table 2-2, page 7, C5, TM 9-2320-218-20 (Sep 71). The only difference for other vehicles will be such things as exact specs for measurements.



You can update your tactical vehicle hydraulic brake system inspection right now. Pick up whatever specs are needed from your vehicle's -20 TM and use the same checkpoints that're in that 1/4-ton truck's -20 TM PMCS table.

Enough



Hands Off!

"Inspect...wheel cylinder." That's what the TM says. But that's an eyeball inspection only. It does not mean you're s'posed to pull the boot back to check



for leaking. If you mess around with the boot, you'll just get dirt inside—and probably start a leak where there was none before.

I GET IT! YOU ONLY
BELIEVE HALF OF WHAT
YOU HEAR -- AND YOU'RE
BLOCKING OUT THE
OTHER HALF!

NAW, THIS
KEEPS ME FROM
FOOLING AROUND
WITH THE WHEEL
CYLINDER BOOTS
WHEN I'M INSPECT.



If the wheel cylinder's leaking, you'll see the brake fluid on the outside. Then you replace the wheel cylinder.

PREVENTIVE MAINTENANCE MONTHLY

Published by the Department of the Army for the information of all soldiers assigned to combat and combat support units, and all soldiers with organizational maintenance and supply duties.

Within limits of availability, older issues may be obtained direct from Editor, PS Magazine, c/o US Army Materiel Readiness Support Activity, Lexington, KY, 40511

	ISSUE	NO. 337	DECEMBER 1980	
GROI	IND	MORII	ITY	

ORGOND II	ODILLI	•	-10
Brake Inspection	1	5-Ton Truck	13
Sprag Clutch	2-5	M747 Semitrailers	14
2½-Ton Truck	6	M127 Semitrailers	14
Alternator	7	M915-Series Trucks	15
11/4-Ton Truck	8-11.12		

1.15

FIREPOWER 16-27 M198 Howitzer 16-17 M60 M G M110/M578 17 M16A1 24 M60 Series Tanks 18 M240 MG 25 End Connector M203 GL Puller 19 45-Cal Pistol 27

AIR MODILITY 37-43					
Finite-Life Parts	37	Avionics Cord	42		
Butane Lighter	37	U-8F	42		
AH-1S Subsystem	38-39	Oil Sample	43		
OH-58A/C		Aviation Messag	es 43		

COMMUNICATIONS 44-51 Multimeter Tips AN/PVS-2 Night 44-47 AN/GRC-106 50 Sight Turnbuckles 51 Sight Generator PM 51 RIW Program 48-49

TROOP SUPPORT

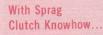
Chaparral

AID MACDILITY

PS wants your ideas and contributions, and is glad to answer you questions. Name and address are kept in confidence. Just write to: MSG Half-Mast PS Magazine Lexington, KY

Use of funds for printing of this publication has been approved by Headquarters. Department of the Army, 23 February 1979 in accordance with AR 310-1.

DISTRIBUTION: In accordance with requirements submitted on DA Form 12-5. Private subscriptions: Order from US Govt Printing Office, Supt of Documents, Washington, DC 20402 \$9.00 per year.





n"THE BRAIN"



FOR SURE, YOU COULD SHED LIGHT ON ANY SUBJECT!

What a great idea! Automatic front-wheel drive when your rear wheels lose their grip on ice, snow or mud! Like your truck is doing the thinking—like it's got a brain.

You've already got that automatic front-wheel drive—if your deuce-and-a-half is one of those older jobs with the "overrunning (sprag-type) clutch."

Hard

It's easy to spot a truck with a messed-up sprag clutch. You can see it coming down the road—front wheels hopping up 'n' down. It's like the front wheels are trying to turn backward while the rear wheels are turning forward.

The sprag clutch has got a hold on the front drive shaft when it's not

supposed to. Rear wheel drive is fighting with front wheel drive.



Other signs of possible sprag trouble are fuel hogging, short life of front tires, hard steering, stubborn shifting and jumping out of gear.

Trouble is, too many drivers and too many mechanics don't dig this sprag clutch. So drivers are busting up transfers, front prop shafts and front axles. Mechanics can head off some of this damage by making sure the transfer linkage is adjusted right.

to Miss

Such sprag trouble can come from the transfer reverse shift linkage being out of adjustment. This can be fixed using the instructions in TM 9-2320-209-20-1

Remote control lever

SOME OUTFITS
CHECK THIS ADJUSTMENT
AS PART OF THEIR
SEMI-ANNUAL SERVICE
IT HEADS OFF A LOT
O' HEADACHES!

I COULD TELL EM THE

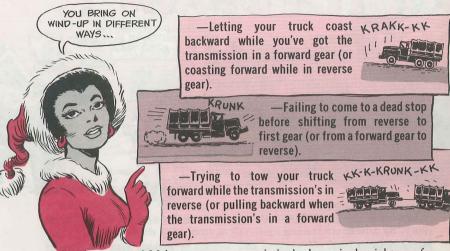
IN TM 9-8000, PARA 210

SPRAG CLUTCH IS EXPLAINED

(e) Adjust Linkage. Place transmission in NEUTRAL. Shorten reverse shift rod (H) until remote control rod (J) is in maximum forward position. Then, lengthen reverse shift rod (H) until remote control rod (J) starts to move toward transfer case. To check, place transmission in REVERSE and turn propeller shaft one revolution counterclockwise when facing rear of truck. The remote control lever shaft her maximum rear position.

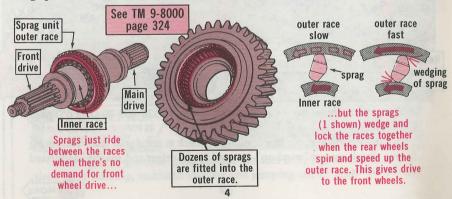
You get a lot more on the sprag clutch in TM 9-2320-209-20 (Apr 65) para 158c (3)!

But, before you get your mechanic on it, check to see if your truck's suffering from a simple case of "wind-up"—caused by the driver and, maybe, easily fixed by the driver.



Get the message? Make sure your transmission's always in the right gear for the direction you're moving—even if you're coasting. If you don't, that sprag clutch will grab a hold of the front drive shaft and lock on. With your rear wheels fighting the front wheels, you'll be lucky if you only wind up with wind-up—you could bust a prop shaft or axle. The weakest point in your drive train will give out. Probably your transfer will conk out.

If you goof—like coasting backward in forward gear—you may be able to head off wind-up. Just make sure you drive forward for the same distance that you coasted backward. Same goes for coasting backward in a forward gear—drive backward the same distance. This should let the sprag clutch release its grip on the front drive shaft.

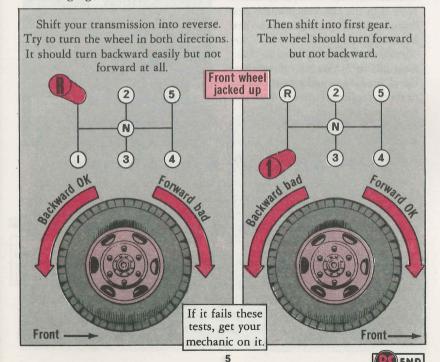


It!

Or you may be able to release the wind-up by jacking one front wheel off the ground. Careful! That wind-up may let go with a real kick. This can be dangerous if you're working on the wheel—like changing a tire—when wind-



Check, while you've got the wheel off the ground, to see if your sprag clutch is working right.



TM-209-Series 21/2-Ton Truck...

Rear Spring Lube News





ton truck's rear spring seat bearings. right way—the only way.

A revision of LO 9-2320-209-12/1 will call for lubing when you pull other services on the rear spring seat bearings:

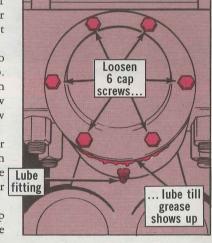
3.000 miles-or-semiannually (no longer 1.500 miles as now in the LO).

Those services are spelled out in Note 8 in the LO. Pencil in the new info to remind yourself until the new LO comes out.

And, while you're at it, take a closer look at Note 8. You can't just slap on the ol' grease gun and give it a couple [of shots. You'll shortchange those rear fitting spring seat bearings!

You've got to loosen the bearing cap screws and then lube until grease

Relief is here! You no longer need shows up around the cap. Then you to do a 1,000-mile lube job on your 21/2- button it back up again. That's the



21/2-Ton BILI / AAL Changes

Make sure you get the new poop on changes in the 2½-ton truck Basic Issue Items and Additional Authorization List. See TB 43-0001-39-1 (Apr 80), Pages 3-29 thru 3-31. You may be carrying some items you don't need, and you may need some items you don't have. This info affects TM 9-2320-209-10-HR and TM 9-2320-209-10-1-HR.

New Motor Transport Pub

Interested in wheeled vehicle driver selection and training? Operating vehicles in difficult terrain and bad weather? Loading and unloading trucks and trailers? Planning a convoy? You need FM 55-30, Army Motor Transport Units and Operations (Mar 80). It superseded FM 55-30, FM 55-31, TM 21-300, TM 55-310 and TM 55-311.



alternator...and you may have some that are not long for this world!

cooling fans.

You can get 5 different model alternators with NSN 2920-00-909-2483-2 Prestolite models and 3 Leece-Neville models.

A cooling fan is built into the back to support.

model.

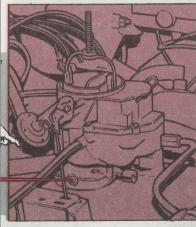
But the other 2 Leece-Neville Some 28-volt 60-amp alternators models—3002AD and 3002AE—take may have been installed without their a cooling fan on the pulley end. It can come off or get lost.

> You eagle-eyed mechs take a look. If you have a Leece-Neville model 3002AD or 3002AE without a frontend cooling fan, replace it and get it





starting their trucks.
too much and flood the engine with
that raw gas seeps out around the



edal down far enough to close the choke. for the engine to start when it's cold. A nan the same engine when it's hot!! chokes—just like your own car. The retor. It makes the fuel/air mixture rich e engine's cold or hot. Vehicles with nen you know how and treat 'em right.

Normal Start—Cold Engine

HERE'RE SOME TIPS THAT SHOULD

HELP ...

Put the gear selector in P or N. Slowly push the accelerator pedal to the floor. Release it. Two things happened:

YEAH, SANTA -- THIS OL' KLUNKER JUST DON'T WANTA START!

SHE MUST BE YOUR

RELATIVE, DANCER...
LISSEN TO HER
TOE TAPPIN!

—You squirted a mist of gas into the carburetor.

Choke valve

Fuel mist

Throttle valve

—And you set the choke...closed the carburetor butterfly valve nearest the air cleaner. (This chokes off the air flow to the engine, giving a richer fuel/air mixture for cold starting.)

((6(Ca)(Churp))))



Turn the ignition key to start.

Release the key when the engine starts. The automatic choke will keep the engine running at high idle. You don't need to use the accelerator pedal.

If the engine fails to start after cranking 15 seconds, stop. Wait 15 seconds. Try again.

If it won't start after 3 tries, stop! It could be flooded—or maybe the choke valve didn't close.







MORE



If you pumped the accelerator pedal too much, the engine could be flooded. This means the spark plugs are wet and can't fire. The spark won't jump the gap. You can smell gas.



Push the accelerator pedal to the floor and hold it there without pump-



No Start—Choke Open

but won't start.

If you pump the accelerator, the engine may start, but it'll run roughmaybe pop, backfire and die.

Could be the choke valve is stuck open. This'll cause the fuel/air mixture to be too lean to start a cold engine.

Check it out by taking the air cleaner off the carburetor (or just take off the



air cleaner cover).

Look at the top butterfly valve. This is the choke valve. It should be closed. If it's not, push the accelerator pedal completely to the floor. The valve

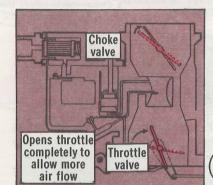
The engine may fire occasionally should close. If it doesn't, push it closed with your fingers.



Now try it. It should start.

When you get back, have your mech spray some break-free solvent on the choke shaft and valve. NSN 9150-01-054-6453 gets a pint with a trigger sprayer. NSN 9150-01-053-6688 gets a gallon.





Flooding

This opens the choke valve a little and opens the throttle valve all the way. More air will be pulled into the engine's combustion chamber to dry the spark plugs.

Try to start the engine. If it won't start on the second try, stop. Let it stand about 20 minutes, then try again.

DON'T RUIN YOUR TRUCK'S STARTER CRANKING AN ENGINE THAT WON'T START!

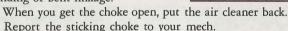


Sluggish After Warm-Up

If your truck starts OK but acts sluggish when it warms up, could be the choke is stuck shut—at full choke. This'll cause an over-rich mixture for a hot engine. You'll notice black exhaust smoke, lack of power on acceleration, and maybe high engine idle speed.

To check it out, shut off the engine. Take off the air cleaner.

Look at the choke valve. If it's closed, try to open it with your finger. Careful. Don't force it. Watch for binding or bent linkage.



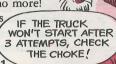


Extreme Cold Weather

Get the truck ready as before. Set the parking brake. Put the gear selector in N this time. It makes less drag on the starter.

Push the accelerator pedal slowly to the floor and release it. Do this 2 or 3 times—no more!

Never crank more than 15 seconds, at a time. Let the starter cool off 15 seconds before trying again.







To get the right parts for your M880's rear brake drum assembly, you need to know which of 3 rear axles your truck has. The axle housing has no markings to identify the axle. Which axle your truck has depends on when it was built.

The when-built info is on the vehicle's certification plate on the driver's door latch post. Also, check Para 4.i., TM 9-2320-266-20P for more scoop on this.

		MFD BY	CHRYSLER PAREN	GAMR FRONT	03290
		DATE OF MFG	04-77	GANT INTERMEDIATE	AL THE
		GVWR	07500	GAWR REAR	05360
			E CONFORMS TO ALL APPLI IN EFFECT ON THE DATE OF		R VEHICLE SPEETY TO
	60	VEHICLE	D24BE75	156 Month	Date Hour
1	- /	VEHICLE TYPE	TRUCK	MDH	041614

The manual, however, will not tell you how to match up the date-built info with the right axle number.

SO JOT DOWN

Axle Drive	Built Date	Axle No
All	Before 1 Apr 76	4031368
All	After 1 Apr 76 and up to 15 Aug 76	4032948
4x2		4032949
4x2	After 15 Aug 76	4032948
4x4	After 1 Apr 76 and up to 27 Sep 76, 13th hour	4032949
4x4	After 27 Sep 76, 13th hour	4032343

If a complete axle assembly is removed and separated from your M880, it should be tagged with the right identification. That'll keep it from getting mixed up with other axles and create an axle/parts mismatch.

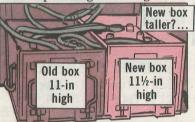
TM 260-Series Trucks...

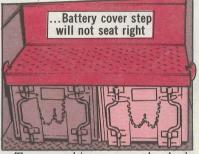
Battery Box Mismatch



When you replace just one of the battery boxes on your 5-ton 260-series truck, you'll get a mismatch.

The replacement—Battery Box NSN 6135-00-405-1984—is 11½ inches high to allow for greater battery cable clearance. This is 1/2 inch taller than the old one, and the battery cover step no longer seats right.





To correct this, you can replace both battery boxes at the same time and avoid the mismatch. Or, you can get your support to install a shim beneath the low battery box. Instructions for this fix are in TB 43-0001-39-2 (Jul 80).

TM-211-Series 5-Ton Truck...

WHAT YOU ASKED FOR, SOLDIER ... BUT DO YOU REALLY NEED ALL OF THIS 2



wrong item for your 5-ton multifuel cost of Filter, fluid pressure. engine truck when you go after Filter, fluid pressure NSN 2940-00-194-2497, page 2-10, TM 9-2320-211-20P. It's not often that you need to replace the filter housing and certain other hardware.

Most likely all you want is the filter element and a few parts needed for periodic oil filter servicing.

And that's all you get when you order Parts Kit, oil filter NSN 2940-00-884-4801, page 2-12 in your -20P

You're probably ordering the TM. It costs about one-seventh the



Wrong loading is cracking welds on the underside of the loading ramps.

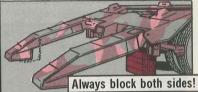
Welds are cracking!

Loading heavy vehicles without blocking the rear of the trailer will cause it.

So will approaching the ramps at an 2-21 in TM 9-2330-294-14. angle...or driving on too fast.

on slowly.

When you load heavy equipment— 55 tons and over-block the trailer.



You'll find the word on page 2-20 and

All M48/M60-tanks and the Keep everything lined up and drive M88/M88A1 recovery vehicles weigh over 55 tons.

TM-207-Series Semitrailers... Leg Parts Westran Landing ALSO, FOR If you've got Westran landing legs HOLDING THE SHOE TO THE LEG, ARE ... on your M127 or other TM-207-series 12-ton semitrailers, you won't find Shaft, straight, NSN 2590-01repair parts in your TM 9-2330-207-070-5968 Pin, spring, NSN 5315-00-903-24P (Jul 73). 4322 UNTIL THE Washer, flat, NSN 5310-01-049-7M PICKS 'EM UP JOT THESE 4072 DOWN! Leg Assembly, NSN 2590-00-Gear Box, NSN 2590-00-178-177-9992 Crank, NSN 2590-00-177-9931 0010 Bracket Assembly, NSN 2590-00-177-9918 Shoe, NSN 2590-00-177-9980 Westran

M915-Series Trucks...



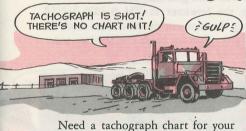
And neither can the 5-ton wrecker.

You need a heavy-duty towbar, on the M88 recovery vehicle. That's on vehicles. page 2-120 in TB 43-0001-39-4 (Jan

The 5-ton wrecker's towbar can't 80). You need 2 inter-vehicular air handle the load when it comes to hoses so you'll have brakes on the towing a disabled M915-series truck. towed truck. Get 'em with NSN 4720-00-740-9662.

Use an M915, M916, M917, or NSN 2540-00-378-2012, like carried M920 to tow any of the M915-series

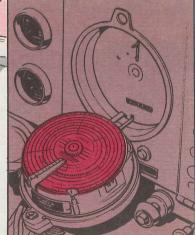
Tachograph Charts



new M915-series truck? Get a package of 10 with NSN 7530-01-060-1628. (If the AMDF says "each," it means a package not just 1 chart.)

Any truck with a tachograph needs a chart in the tachograph. If you don't have a new chart, don't take out the old one. Operating a truck without a chart will ruin the tachograph. An expensive mistake-\$600 or more.

Get 10 tachograph charts with NSN 7530-01-060-1628

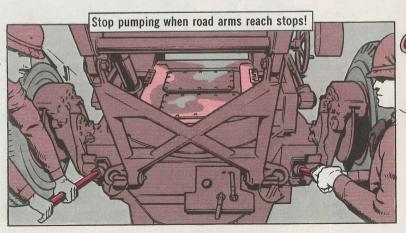




Two things are happening that can snap the actuator arm on the M198. They were both discovered after TM 9-1025-211-10 (Oct 79) was printed.

1. When they emplace the howitzer, Cannoneers No. 3 and 4 sometimes keep on pumping even after the wheels are all the way up. There's no place for the extra pressure to go, and the actuator arm gets snapped.

Review the steps for emplacing the howitzer in TM 9-1025-211-10. Cannoneers have got to stop pumping the moment the road arms reach the stops on the carriage. Any pumping after that can break the actuator arm.



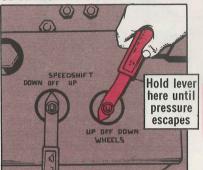
Pump Pressure!

2. The steps in your -10 manual on preparing the howitzer for towing do not release all the hydraulic pressure when the WHEELS lever on the manifold assembly is changed from UP to DOWN.

Unless you release this pressure, the weight of the howitzer will bear down on the actuator arm even after the wheel locks are in place. This extra weight can eventually crack the actuator arm.

To prevent this, read your -10 manual about preparation of the howitzer for towing. To keep the actuator arm from cracking, after you have done Step 15, do this as Step 15½.

Move the WHEELS lever from OFF to a point halfway between OFF and UP and hold it there until the sound of



the escaping pressure has stopped. Then turn the lever back to the OFF position and go ahead to Step 16.

Drive Sprocket Torque



Final Drive Damage

I HOLD MY BREATH EVERY TIME WE PULL A POWER PACK!

I KNOW! WE'VE BUSTED LOTS OF PINION GEARS AND VENT LINES!

12-in

HOLD ONE, MEN! HERE'S A SHIELD THAT'LL STOP SUCH PAMAGE!

21/2-in

lip

You can stop that damage. Make a couple of shields, one for each side. A

-29½-in-

The pinion gears on a lot of final drives are being damaged.

The powerpack bumps and bangs the gear when the pack's taken out or

put back in.

When removing power pack you can tear out vent line...



And on the M60A3 tanks with the closed final drive breather system, the vent line is being bumped and torn out.

piece of sheet metal about a foot wide and 32 inches long will do it. Bend a 21/2-in lip along one end.



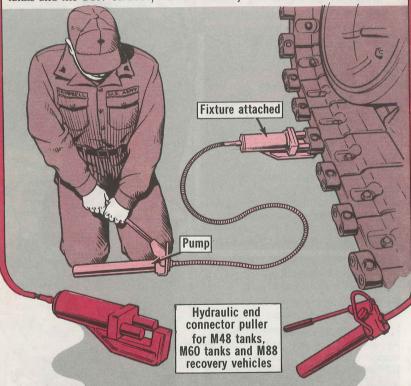
Lay the shield over the hull to protect the pinion gear and vent line when the pack is being taken out or put in.



No more sweatin' or gruntin' or busted knuckles! Track end connectors come off easy as pie.

All you need is the new hydraulic End Connector Puller, NSN 5120-01-052-5642. It's being added to the special tools section in your vehicle's -20P.

Use the puller for T97E1 track on M48-series tanks, T142 on the M60-series tanks and the T107 on M88/M88A1 recovery vehicles.





Chaparral Step Easy- Keep Your Guard Up System... Step Easy- Keep Your Guard Up

Maybe the devil makes you do it. You see a "No Step" sign in the compartments of your Chaparral missile system and your foot heads that way as to a magnet.

Resist...let some part live a little longer and keep your system running.



avoid are spelled out in big letters in the main power unit (MPU) compartment. Step on those and you'll break wires and leads...and your system will be down for a repair job.

Another high-damage "step" is the air purifier blowdown valve in the crew compartment. Avoid it.

The valve gets clobbered by feet and by unauthorized gear stowed in the compartment...or thrown in.

Valveno step N. SO, WATCH WHERE YOU PUT YOUR FEET, AND CHECK 7M 9-1425-586-10 (Sep TI) FOR GEAR YOU CAN STOW IN THE CREW COMPARTMENT!

HOW 'BOUT

IF YOU

WATCH IT,



HAH -- YOU SHOULDA BEEN CAREFUL NOT T'PROP THOSE SWITCH GUARD PARTS IN THE SNOW, GRUMPO!

Rheostat knobturn it easy

Switch Guards

Next time you poke your head into the gunner's compartment, look down...to the lower half of the control panels. Each panel should have 2 switch guards extending from the bottom to about a third of the way up.

The guards (NSN 5430-00-060-5386) prevent busted switches from knees and feet. If you don't have guards, ask your support to install them. Special screws and retainers are needed.



Optical Sight

The rheostat knob on the gunner's XM75 optical sight has a limit stop at each end.

For gunners who haven't vet found out the hard way, the stop will break if you force the knob past the stop. When the stop goes, the sight goes down for repair.

The idea is, turn the rheostat knob (be a little gentle) till you feel resistance. Then, quit turning. If you don't have the adjustment you need by then, the sight needs maintenance.



OK, YOU CHAPARRAL TYPES, HERE'S SOME MORE INFO THAT'LL HELP KEEP YOUR GUARD UP ...

Air Filters

When you reinstall the air conditioner air filters for the gunner's compartment, keep the filter arrows pointing toward the compartment.

That'll give maximum air flow for the gunner, the air conditioner will give peak performance, and the gunner can do his job safely and comfortably.



Antteries

The system works best on matched sets of lead-acid batteries. Performance falls off when batteries are in Batteries equally charged?

different states of charge.

Ideally, when you install batteries, each one should have an electrolyte specific gravity reading of 1.280 (1.225 in the tropics) on your optical antifreeze/battery tester.

Never install a battery with a reading under 1.225 (tropics, 1.180). If it won't charge to 1.225, replace it.

H H Thermostat

switch must be covered with asbestos MPU down. sleeving...to keep the wiring insulation from melting and the wire from

Wires need asbestos sleeves

Wiring to the MPU thermostat shorting. A shorted wire will put the

If you don't know asbestos, look for a gray, fuzzy cover over the wire. If the wire doesn't have the sleeving, request it from maintenance.

Another MPU wiring sleeve to look for is on the wire that runs from the MPU to the K1 relay.

The sleeve is a heat-shrink plastic type, and without it the wire will short and blow the K1 relay.

Your support installs the sleeve.



When you store the flotation curtains or remove them in the field, keep the top side up. Let the curtains rest on the underside.

If you place them topside down on the ground, concrete or whatever, the ceiling side will rub into the whatever and you'll ruin the seal.

Air Compressor

Like an echo, the word has bounced off walls, ears and eyes for years: DO NOT USE 30 W OIL IN THE AIR COMPRESSOR!

Like clockwork, compressors are damaged or destroyed because some crewman didn't have time (he thought), or didn't want to get the oil especially designed for the com-

Once again: Use only BMS 3-7A oil, use. That 30 W automotive oil will. 3-1 of TM 9-1425-586-10.

LUBE OIL COMPRESSOR Use **BMS 3-7A** 9150-00-753-4667 this SYNTHETIC LUBRICATING OIL WARK OF VERNECE) CHEMICALS, INC.—REG. IN U.S.A. AND OTHER CO

Again, substitutes cause expensive and extensive damage.

Remember, too: Check the com-NSN 9150-00-753-4667, in the compressor oil level before and after each pressor. It will not break down under operation. That's spelled out in Table

AN/GRA-39

Commo Bear



The Chaparral track shakes, rattles and rolls things loose. That's why everything should be strapped down, especially your expensive AN/GRA-39 radio set control group in the rear electrical compartment.

The GRA-39 should be secured with the strap provided before you get underway. Otherwise, it'll fall off the radio set and damage itself and other equipment.



Wear causes flat spots on the outer rims of the spring. Armorers should replace the spring when they find flat areas.

Sometimes the operating rod spring will take a permanent set from being bent double in its package. If you remove a spring from a package and it still has a slight bend in it, turn it back in. Otherwise, the bend will wear during use and you'll have to replace it anyway.

M16A1 Rifle...

Firing Pin Foul!!

Sure, you can use your rifle's firing pin to help take down your weapon. That's legal. But you never use the firing pin for cleaning jobs.

F'rinstance, you never use it to remove the carbon deposits from the shoulder inside the bolt carrier. That can ruin the firing pin tip...and that's a foul...calling for a new pin.

Read the bolt carrier group cleaning poop in TM 9-1005-249-10.

You clean out carbon deposits with pipe cleaners, swabs, and Rifle Bore Cleaner-RBC. Nothing else.



Carbon buildup's usually caused by too much lube on the bolt carrier group. So after the cleanup biz, lightly lube the firing pin and firing pin recess.

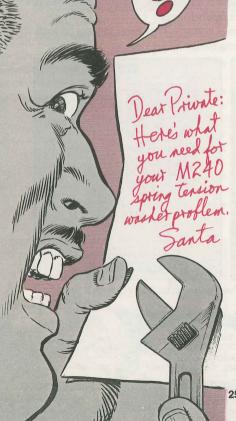
Watch Washer!

Repeated removal of the nut, screw

You might have to remove them and spring tension washers on the often enough in training so that the trigger and frame assembly of your washers, NSN 5310-01-033-3850, lose M240 machine gun can do in the tension or the serrated sides wear. If washers. the side wears smooth, or the bend flattens out, the nut, NSN 5310-01-034-1542; can back off.

If the nut works loose, the trigger and frame assembly starts to come apart...and can even fall off during firing.

So what to do? Use an adjustable wrench to tighten the nut when you install it. A check after firing wouldn't hurt, either. If the nut keeps coming loose, tell your armorer. He may have to replace the tension washer.



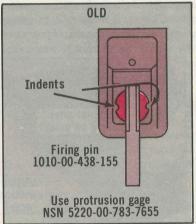


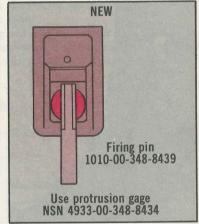


If your unit's M203 grenade launchers don't have the latest firing pin, your grenadiers have probably found out the hard way.

The old pin is too long and punctures primers. The new pin, NSN 1010-00-348-8433, came out about 3 years ago and is the only one in supply. All old pins should have been replaced by support by this time.

Armorers can spot the old pins easily enough. They have indents on each side, whereas the new ones are full-rounded.





Also, you grenadiers can tell if you've got old pins. The primer of the round

may be punctured after firing. If you've got an old pin, turn

the launcher in to support.

SUPPORT HAS THE NEW PINS AND GAGES TO CURE THE PROBLEM.

.45-Cal Sear...Right Wav

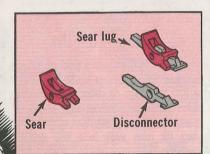
... YEAH ... AN' I CAN USE SOME HELP IN INSTALLING THIS SEAR CORRECTLY!

TM 9-1005-211-12 has good pictures and instructions on how to remove and install parts on the M1911A1 .45-cal pistol, including removing the sear and disconnector.

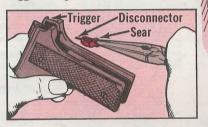
However, it comes up short on installing the sear. Some troops try it upside down, which makes problems.

To keep it simple, assemble the sear and disconnector as shown in panel 18. Fig 3-14 of the -12 TM.

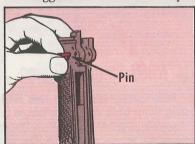
Now, keep the lugs of the sear facing down, toward the base of the pistol grip. The rounded hump of the sear should be facing the pistol.



Position the 2 sear lugs on the trigger and place the wide, flat base of



the disconnector against the back of the trigger. Install the sear pin



through the sear, and you're done. Be sure to do the steps in order, as shown on pages 3-12 and 3-13 of the TM.



This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recentAG Distribution Centers Bulletins. For complete details see DA Pam 310-4. DA Pam 310-6 and DA Pam (C) 310-9. TECHNICAL MANUALS

TM 5-3805-254-14&P-2 Jun Truck, dump, 20-ton, 6 x 4, on-off highway 71,000 GVW IHC Mod F-5070 (CCE) TM 5-4310-362-14 Jul Compressor, recip electric 5-CFM 175-PSI Mod 20-904 TM 5-4310-363-24P Jul Air compressor,

TM 5-4310-363-24P Jul Air compressor, recip 15-CFM 175-PSI Bauer Mod KAB-545-15
TM 5-4310-367-24P Jul Compressor, recip, air: 8-CFM, 175-PSI, GED, Dis-

tributors Mod 20-905
TM 5-4520-244-24P Jul Heater, duct type portable trailer mtd, 400,000 BTU/HR Fiesta Mod FC-400-1

TM 5-6675-296-24P Jul Theodolite, Wild Heerbrugg Mod T2-68 Mil TM 5-6675-304-12 Jul Survey electronic dist meas eqpt, Infrared Mod DM-60 (M-

olst meas eqpt, infrared Mod DM-90 (M-1)
TM 9-1336-488-12&P May Warhead section, missile, practice It wt M252
TM 9-1410-586-24P Jun Chaparral

TM 9-1410-586-24P Jun Chaparral TM 9-1415-429-12 Aug Stinger TM 9-1425-480-L Jun Dragon TM 9-1430-381-20P Jun Ground networks—Pershing 1A TM 9-1430-385-20P Jun Computer,

Pershing 1A TM 9-2320-260-10-1 Aug 5-ton M809series trucks TM 9-2350-215-20-2-1 Jul M60A1/

M60A1 AOS tank turret TM 9-2350-215-20-2-2-1 Jul M60A1 and M60A1 tank turret TM 9-2350-215-20-2-3-3 Jul M60A1 and

M60A1 AOS tank turret
TM 9-2350-215-20-2-3-4 Jul M60A1 and
M60A1 AOS tank turret

TM 9-2350-257-20-2-1 Jul Tank turret M60A1 RISE, RISE passive TM 9-2350-257-20-2-2-2 Jul Tank turret M60A1 RISE, RISE passive TM 9-2350-257-20-2-3-1 Jul Tank turret M9-2350-257-20-2-3-1 Jul Tank turret

M60A1 RISE, RISE passive

TM 9-2350-257-23-2 Jul Tank turret

M60A1 RISE, RISE passive

TM 9-2350-257-23-3 Jul Tank turret

M60A1 RISE, RISE passive TM 9-2350-257-20-2-3-4 Jul M60A1 RISE, M60A1 RISE Passive tank turret

TM 9-6130-485-14 May Lance
TM 9-6920-430-14 Aug Stinger
TM 10-5410-222-23P/1 Jul Shelter, in-

flatable MUST C 1, TM 11-1290-387-20 Sep AN/TNS-10 sound ranging set TM 11-1520-236-20P Jun Electronic AH-

TM 11-2300-459-14&P-4 May MK-

1810/VRC electronic eqpt install kit w/difference and remote audio installation kit for M882 or M892 trucks

tion kit for M892 TUGN M992 TUGN TM 11-2300-459-148P-7 May MK-1817VRC-46 electronic eqpt install kit TM 11-2300-459-148P-6 May MK-1812VRC-24 electronic eqpt install kit TM 11-5826-243-20P Aug AN/ARN-103 (V) 1 and (V) 2 navigational set C 6, TM 11-5840-208-20 Jul AN/MPQ-4A radar set

TM 11-5865-223-24P Oct AN/GLQ-3B countermeasures set C 10, TM 55-1520-210-23-1 Jun UH-1D/H/EH-1H

C 12, TM 1520-210-23-1 Jul UH-1D/H/EH-1H C 13, TM 55-1520-210-23-1 Jul UH-

1D/H/EH-1H C 7, TM 55-1520-210-23-2 Aug UH-1D/H/EH-1H C 5. TM 55-1520-210-PM Jun UH-1D/H

and EH-1H checklist C 5, TM 55-1520-234-23-2 Jul AH-1S (mod)

(mod) TM 55-2840-249-23 Jul Engine T55-L-7, T55-L-7B, T55-L-7C MISCELLANEOUS

DA Form 2404 Apr 79 Eqpt inspect & maint worksheet
SF Form 364 Feb Report of discrepancy

(AR 735-11-2)
PAM 310-3 (fiche) Jul Index of doctrinal, training, org pubs

PAM 310-4 Jul (fiche) Tech pubs index PAM 310-99 (fiche) Jul Obsolete pubs TB 55-8100-200-24 Jul Maint of reusable containers

TB MED 522 Aug Self-luminous devices—hazards SB 700-20 Sep (fiche) Adopted items

SC 3433-90-CL-NO1 Nov (fiche) Torch outfit cutting and welding (LIN W67706) SC 5420-97-CL-E53 May Bridge erection set LIN C22126

AUDIO-VISUAL STUFF

Available at battalion or post Learning Center

TV TAPES
TVT 55-113 Personnel rescue
hoist (breeze type) Part I
TVT 55-114 Personnel rescue
hoist (breeze type) Part II
TEC LESSONS

010-071-6520-F Fire direction computer Part I 030-051-6324-F M4T6 Float bridge/raft: Saddle assy, Part

043-441-5488-F IHIPIR radar 043-441-5531-F IPAR transmit power check Part I 043-441-6008-F Vulcan radar PM 043-441-6009-F Vulcan radar

043-441-6009-F Vulcan radar maint after use 101-113-7176-A Multimeter AN/USM-223 resistance Part I 101-113-7177-A Multimeter AN/USM-223 voltage Part II 101-113-7178-A Multimeter AN/USM-223 current Part III 202-113-5220-A Test set

AN/USM-181 Part II

611-171-1600-J M60-series tank Part I suspension 611-171-1601-J M60-series tank Part II suspension 611-171-1700-A M88A1 hydraulic 611-171-1701-A M88A1 engine 611-171-1701-J M88A1

engine 611-171-1702-A APU 611-171-1703-J M88A1 hydraulic 611-171-1704-A M88A1 winches 611-171-1704-J M88A1 winches 611-171-1705-A M88A1 Spade and boom 611-171-1705-J M88A1 spade

and boom 611-171-1706-A Impact wrench 945-171-0063-J

945-171-0063-J M113A/M577A1 cold weather starting

M880 Ignition Timing

Radio suppression ignition on some M880series 11/4-ton trucks won't let you hook up the standard-issue timing light to check ignition timing. But you can make a spark plug wire adapter for the timing light that'll let you do the job. See TB 43-0001-39-1 (Apr 80), Page 2-53, for instructions.

Wash After Use

LSA and PL-S lubes do a great job for your weapons, but not for your health. The lubes can irritate your skin. So, when you finish using them, wash your hands as soon as possible, especially before you eat, drink or smoke. Also keep the lubes away from food and food containers.









DIRT, SMOKE, PROPELLANT ASH AND MOISTURE FROM THE NATURAL FNVIRONMENT ...



GET RID OF THEM THE RIGHT WAY ... USE A CAMEL'S HAIR BRUSH, LENS TISSUE AND THE SOLVENT APPROVED FOR THE ITEM!



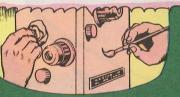
Note: Never use liquid solvent in cold weather! It'll freeze!

warry him

munte OIL, PAINT, GREASE, SOLVENTS CARELESSLY APPLIED TO ADJACENT AREAS...



BE CAREFUL IN THEIR APPLICATION ... REMOVE EXCESS OIL AFTER LUBING ... PAINT ONLY TO KEEP DOWN CORROSION!



EXCESSIVE FORCE APPLIED TO SHAFTS, KNOBS, CONTROLS WHEN THEY STICK BECAUSE OF CORROSION OR LACK OF LUBE ...

Municipal



mulico DON'T MAKE LIKE A GORILLA ... FIND AND CORRECT THE CAUSE! GENTLENESS PAYS OFF WITH ALL OPTICAL GEAR!





CARELESS STORAGE AND TRANSPORTATION ...

DON'T PUT IT IN A DIRTY BOX!

CLEAN, CUSHIONED BOX ONLY FOR YOU, BABY!

NOW, SPECIAL ITEMS ARE NECESSARY ...

YAWN



FOR

munico IF THE LIQUID CLEANER'S NOT HANDY, YOU CAN USE DENATURED ALCOHOL, NSN 6810-00-543-7415!



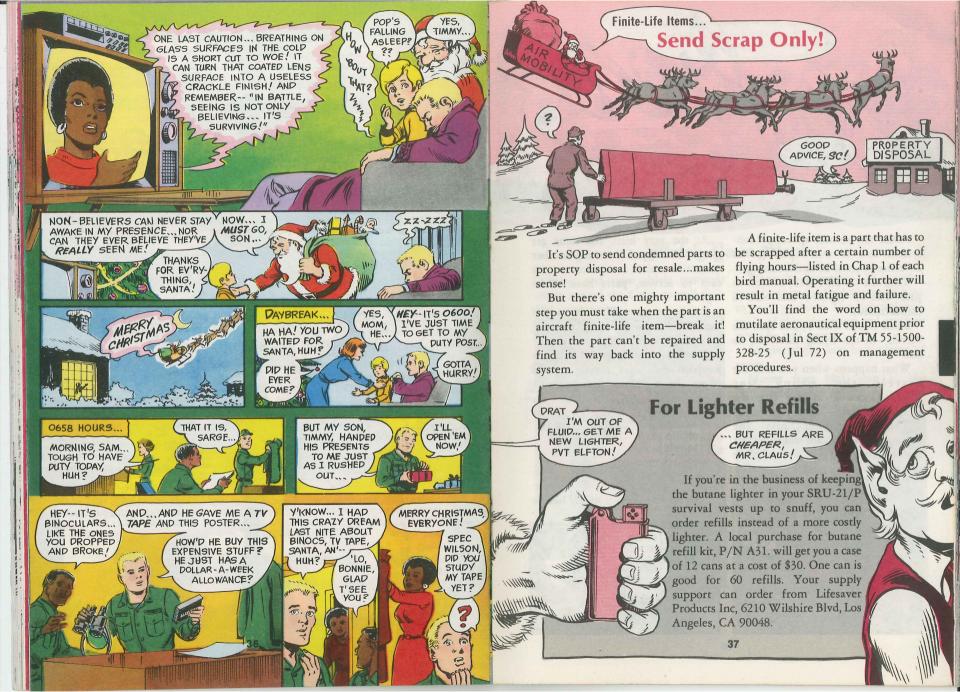
Lens Tissue 6640-00-559-1385 (Pad) Lens Dusting 7920-00-205-0565 Brush Cleaning com- 6850-00-064-6287

xum.

MATERIALS YOU NEED ...

HERE ARE THE CLEANING

pound (optical)





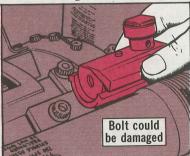
Abuse any aircraft armament subsystem and it won't perform as advertised...could be embarrassing!

your AH-1S (ECAS) and AH-1S replaced. (Modernized).

barrels—in the wrong direction, no 3-18 of TM 9-1090-206-12 (draft). less.

(counterclockwise as you face the weapon)? Plenty—and it's all bad!

The bolt roller hits the locking/unlocking cam where it's not beveled. You could get a broken bolt or break the firing contact.



At the very least, the cams get gouged or chipped. If stoning or other corrective action won't restore the Take the 20-MM M197 cannon in cam to service, parts have to be

Fact is, damage could result to any of Some troops walk by and spin the the related parts—items 6, 7, 9 in Fig

The Caution on page 3-135 of the What happens when you turn the weapons pub says nobody should barrels the wrong way rotate the barrels counterclockwise.



'Course, only armorers should handle that baby.



Watch Your Step!

Pilots and crew chiefs routinely climb around the Cobra to pull their PM inspections.



One place you never plant your brogans, tho, is on any launcher. The



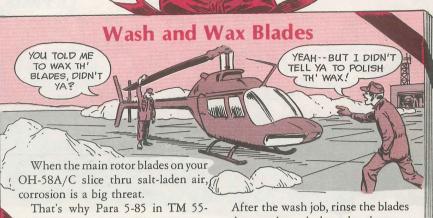
gunner won't be able to hit the broad side of a barn because the boresighting will be thrown off.

When the disposable 2.75-in rocket launcher hits the field, you really have to watch your step. That lightweight is made of thin aluminum and any foot pressure will dent it.

So give those launchers plenty of room.

Mount your bird, step in the designated areas on the wing, and watch your gunnery scores improve.





1520-228-23-1 (Aug 78) says you should wash the blades, as required, with mild soap—NSN 8520-00-531-6481

and use a clean cloth to dry them.

Wax the blades but don't polish the wax. NSN 7930-00-267-5588 will get you a gallon of aircraft wax.



New Rescue Hoist

Hoist, high-performance, NSN 1680-01-058-3671, is ready to hit the field. If you're in a Medevac unit, it's authorized for your UH-1H/V models only.





It's a fact that fire-resistant hydraulic fluid MIL-H-83282 replaced MIL-H-5606C at most servicing points on your Huey.

But that's not the case with the stabilizer bar dampers.

When you spot a low fluid level, add timing!

the hydraulic fluid called for in Para 5-54a(1) of TM 55-1520-210-23 (Feb 79)—MIL-H-5606C...NSN 9150-00-180-6181.

If you mix the fluids, there's no tellin' what will happen to damper



When you birdmen receive an overhauled fuel control for your T-53 engine, it's important to know which type you have.

Controls with the bronze P1 bellows means your bird remains under some flight restrictions, accord- 2915-01-005-9197. ing to TSARCOM Msg DRSTSsome time to modify all of 'em.

If your Huey or Cobra has Fuel Control, P/N 84200A7A, NSN 2915-00-223-7004, it has the bronze P1 bellows.

The improved fuel control with a steel bellows-and no restrictions-is identified as P/N 10070A4, NSN

When you use the modified fuel-MEA(2) 042045Z Jun 80. It'll take control, identify the engine as a T53-L-13BA.

Crew Chief's Cord



What's the stock number for the crew chief's avionics cord, PN 762-1856-102, listed in TM 55-1520-210-23P (Mar 77)? SSG L. H. Dear Sergeant L. H.,

There's no stock number for it. Your avionics support shop can make one up for you using Connector U-94A/U, NSN 5935-00-553-9352; Connector MS3126F10-6P, NSN 5935-00-726-6519; Cable, electrical WM-85/U, NSN 6145-00-635-1536.

THE PARTS ARE LISTED IN TM 11-1520-210-34P (Mar 78)





If you Seminole types have problems with the nickel-cadmium battery boiling over, get a battery monitor for your U-8F.

and flashes a warning light to the pilot because the 2-year compliance date is whenever the charge current exceeds a running out.

safe level. It's then a simple matter for the pilot to turn off the battery.

Get your AVIM unit to incorporate The monitor senses battery current MWO 55-1510-201-30-29 (Nov 78)

TB 43-0106 (Jul 78) allows you to pull an aircraft oil sample earlier or later than the actual time it is due. This range makes sense because you can't hit it right on the money.

When you schedule the next sample, figure it from the time the last sample was taken—not from the time it was scheduled.



Oil Sample Timing

I HAD MY OIL SAMPLE TAKEN

HOW

BOUT YOU, RUDY2

ON TIME ...

Aviation Messages

If your unit has not received these messages, check with your next higher headquarters. AH-1-80-17 Maint Notice: AH-1S heads

MEA 181404Z Aug 80

CH-47-80-10 Maint Notice: CH-47 rotary head rainshield DRSTS-MEA 221445Z up display (HUD) night filter op DRSTS-

GEN-80-21 Safety vest assy, hoist operator, NSN 1680-00-982-9973 (SOPE) DRSTS-MAPL(1) 061400Z Apr

GEN-80-22 Safety of personnel eqpt (SOPE) Urgent—Deadline FF-2 auto ripcord release NSN 1670-01-008-7751 GEN-80-23 Fitting OV-1/RV-1 lap belt assy individual DRSTS-MAPL(1)

Slips Count!

A new tail-rotor-control roller chain on your Huey may lose some tension 5-10 hours after installation. So check the cable for a correct reading of 40-60 pounds. That's the word in the special inspection section of TM 55-1520-210-23, C 3.

Clean and Bright?

It's possible for the sealing gel in Mohawk (OV-1) fuel tanks to go bad and gum up the works. Prevent fuel starvation. Check out the JP-4 routinely, as explained in Para 1-23 of TM 55-1510-213-23-1. Table 1-4 in the pub tells you what to look for.



If you expect your multimeter to do a job for you, do a job on it—a PM job. Here're a few tips to keep your multimeter—AN/URM-105, TS-352 or AN/USM-223—ready to make the grade when you put it to the test.

HEY-CAN LOST WEIGHT-THAT BE LOST WEIGHT-IF IT IS! C'MON --LET'S SEE WHAT HE'S GOT FOR US -- ? HOHOHO-- HERE'RE SOME GREAT GIFTS FOR ALL YOU COMMO TYPES...

Ohms? Or Holts?

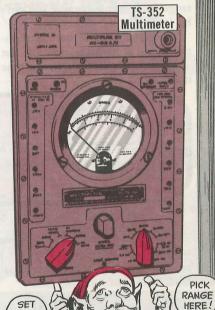
Test time? Be sure your meter is switched to the function you need. Nothing flunks out a good test set any faster than giving a voltage test with an ohms setting.

You get another "F" if your meter is scaled too low for the volts. Start with a high setting when you're not sure what to expect. A current overload can burn up your tester.

Likewise, if you're after DC voltage, that's how to switch your set, not to AC.

When you're checking continuity, be sure the gear you're testing is OFF. Once again, the killer current can hit your meter.

Save your meter's batteries too. When through testing, turn it off or set it in volts. On an ohm setting, your batteries will drain.



Speaking of Batteries

Maintenance

KEEP YOUR

MULTIMETERS

TOPS YEAR 'ROUND!

CHEEEEE!

WHAT A HAM SANTA PICKED

FOR A HELPER!

Another good way to insure passing marks for your multimeter is to take care of its dry cells.

Take 'em out when your meter'll be idle for long periods of time to head off corrosion damage from leaking batteries.

Then, when you do get ready to do some testing, make sure the batteries are in good shape. Your operator's manual shows you how to test 'em.

Keep battery polarity in mind. Watch the direction arrows in the battery case. They clue you to proper position.

YEAH! I HOPE HE TELLS 'EM TO WATCH BATTERY POLARITY AND STORAGE!



Removing batteries is especially important with the -223. Those mercury cells are likely to corrode. If yours corrode have Support put in a Mallory-type PX-21, NSN 6135-00-990-1822. That's a alkaline replacement for the BA-1312. Use NSN 6135-00-120-1010 for BA-42's.

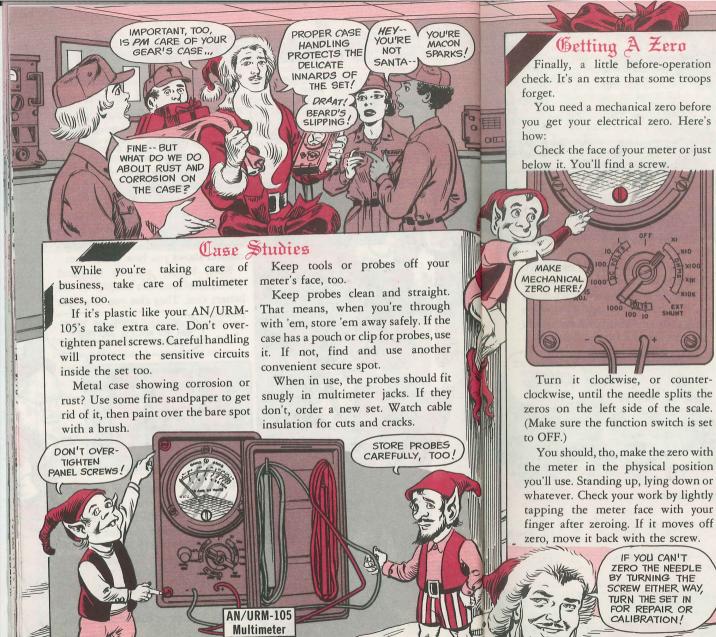
If any battery shows signs of bulging, leaking or corroding, replace it

44

FUNC-

TION HERE.

45



مسلم الملاحد معادد المالالمال

-2B Or Not -2B

If your AN/PVS-2 or -2A night vision sight has been changed to a -2B, it has a new NSN and needs to be accounted for as a new item. All of your supply records need to show this new number. AR 710-2, Para 2-7g tells you how to make the changes.



The changeover, done by Sacramento Army Depot, gave the modified sight a new NSN, 5855-00-760-3869.

If you have the improved sight (automatic brightness control was added), let the supply system know.

Pass It On



Finished with this copy of PS? Pass it on to the next soldier.



Works for You

SORRY, SANTA ... BUT THIS YEAR'S TOY PROPULTION IS WAY BEHIND SCHEDULE ...

YEAH... WE HAD TO
SHUT DOWN TH' ASSEMBLY
LINE TO LOOK AT LAST
YEARS "BAD" TOYS JUST NOW
BEING SENT IN FOR REPAIRS!

BUT 1 OUT OF 5 IS STILL GOOD!

CLOSE

There's good and bad new out of the top shop on the Reliability Improvement Warranty (RIW) program for avionics gear.

Under RIW, the avionics' manufacturer is paid a set fee to repair his failed components for a certain period. Five or 500 repairs—it makes no difference in his pay.

That kind of a contract makes him want to make his product better. If he does, everyone wins. He spends less money fixing gear and your equipment stays on the job longer

Now back to the news.

The good is that for the most part, operators and repair types are doing a good job of keeping those black boxes sealed and in good shape. That keeps the warranty in effect and the factory will take the part back and fix it.



RIW Supported Avionics

AN/ASN-128 Lightweight Doppler Navigation System TM 11-5841-281-12,20P SB 11-643 (Feb 79)
AN/APN-209 Absolute Altimeter TM 11-5841-284-23+P SB 11-642 (Mar 80)
AN/ARN-123 VOR/LOC/GS/MB TM 11-5826-258-24,20P SB 11-641 (May 77)
R-1963/ARN Glide Slope, Marker Beacon TM 11-5826-257-24 SB 11-641

The bad? Some of you make it hard on yourself.

HERE'S HOW...

About 1 of every 5 pieces returned to the manufacturer is in perfect working condition. That doesn't kill the warranty, but it takes a good piece of gear off the flight line. Check it out by the TM before you send it in.

Some units also take too long to get those failed units back to the factory.



Do it now! The supply bulletin (SB) says to mail failed parts immediately, using US Postal Service, priority, insured, return receipt requested.

The top shop's doing what it can to make returning bad parts easier. The procedure is standardized—altho the factory address is different.

One change, tho. Until SB 11-641 is revised, here are the addresses for

required electronic messages on AN/ARN-123's and R-1963's:

To: 510-955-9884 Bendix Avionics Div
Ft Lauderdale, FL
ATTN: ARN-123 Repair Service
Administrator (RIW)

INFO: 510-955-9884 DCASMA
Bendix QAR
CDRCERCOM, Ft Monmouth, NJ
ATTN: DRSEL-MME-AN
CDRAVRADA, Ft Monmouth, NJ

Some soldiers make extra work for themselves by tossing out the packaging when a repaired part comes back. Keep it for sending a failed one in. Why go to the trouble of building a new container?

ATTN: DAVAA-P

Keep your spares inventory up, too. Follow the TM and SB and notify the manufacturer by electronic message of a failure and in about 2 weeks you'll get a replacement.

Finally, to help the top shop know how reliable your gear is, be sure to note the installation/removal info on the component label.

If you have any questions, suggestions, gripes or problems involving RIW...

Commander
US Army Avionics R&D Activity
ATTN: DAVAA-S/ILS
Ft Monmouth, NJ 07703

15

AN/GRC-106 Radio Set...

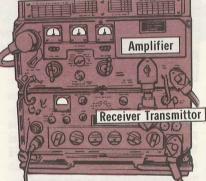
Rust | Burning You Up?

HERE'S WHAT CAUSED YOUR ANGRY-106 TO BURN UP, SOLDIER!



I DIDN'T KNOW RUST COULD DO THAT!

If you fry an amp on an Angry-106, take a look around before you plug in a new one.



Your first look should be for rust on the contact of the AB-652 mast base. Rust can prevent transfer of power to the whip antenna-and that will burn your new radio up, too.



Find some rust? Sic your support folks on it.

Before you org mechs start cleaning it up, be sure the radio is off and the base is out of its mounting.

Clean the outside of the contact with sandpaper or a wire brush. Once it's clean, coat with Silicone NSN 6850-00-880-7616.



Then, loosen the nut and look inside the contact. If it's rusty, take a small brush like the one in your rifle cleaning kit. Coat it with bore cleaner or Cleaning Compound NSN 6850-00-105-3084. Run that over the contact until it's clean.

the mast base at each PM session.



Keep things that way by scoping out

STORING the

Leave the M6A2 hood attached to your M17/M17A1 mask when you store it in the M15A1 carrier.

It'll save you a few precious seconds if you're under an NBC attack.



Unfasten the hook and pile fasteners on the hood's arm straps. (Make sure the straps will fit you).



MASK

When you unmask, pull the hood completely over the front of the mask.



Hold the front of the mask in a horizontal position and smooth the hood over it.

Fold the 2 edges of the hood over the inlet valve to create a "V" in the front of the hood. Store the arm straps and pull the cord inside



Fold the "V" upward to the left side of the mask if you're righthanded and to the right side if you're lefthanded. Don't let the hood cover the opening for the



Hold the mask upright and put it in the carrier facing out the carrier opening. Let the harness swing free when you store the mask in the carrier. If you pull it to either side, you'll create a permanent set.



53

Extreme Cold Weather Hood...



Operating and maintaining equipment in extreme cold weather can be dangerous to your health. F'rinstance, when you're part of a Jack Frost-like training exercise.

On such occasions, Uncle issues special clothing for your protection. Included in this protective clothing is an extreme cold weather hood, NSN 8415-00-782-3004. It has a synthetic



fur ruff. The hood buttons to extreme cold weather parka NSN 8415-00-782-3216.

But like other equipment, your furred hood needs PM.



1. Keep frost and snow brushed off the fur ruff as much as possible. Wet fur becomes matted and stiff. It irritates your skin and eyes when you pull it close to your face. And who needs a "sandpaper" facial when the temps are pegging out at -20°F and lower!

Oil, grease, and mud on the fur also makes it uncomfortable when rubbing against your pretty face. Keep the fur ruff as clean as conditions permit.



2. Hand wash the hood with a mild detergent in lukewarm water. Rinse thoroughly in clean water, shake out, and drip dry.



Never machine tumble, or lay the hood on a stove or heater to dry.

Keeping the fur fluffy will stop a painful case of frostbite or freezing.

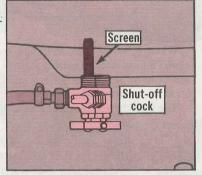


NOW D'YA KNOW WHY I ORDERED THOSE PARTS, SARGE?

Forget the SMR codes for the fuel tank drain valve assembly NSN 2990-00-948-7038 used on your Model D7E and D7F Caterpillar tractors.

The codes say the valve assembly can be requested as a part. Not so. You have to put it together, like the AMDF

Use NSN 2910-00-932-0819 for the shut-off cock, and NSN 2990-00-948-9761 for the fuel valve screen.



ICU 1466...

Engine Room Fan Motor

motors...



The engine room fan motor-PN5BC66AB2177—is no longer in the supply system. Support for 'em is limited to replacement of bearings and brushes.

If the fan motor's on the blink, and it'll take more'n brushes and bearings to get it working, try cannibalization...or a commercial repair facility.

No luck at the can point?

HOHOHOHO! GOT A FAN MOTOR These

repair the fan firms ... INCLUDING REMINDING

THE STATOR AND ROTOR

General Electric Co. Apparatus Service Shop 1403 Ingram Ave

Richmond, VA 23224

General Electric Service Shop 1286 West Ninth St Long Beach, CA 90813

Other electric motor repair facilities may be closer to you, so check before you spend your unit funds to get the motors repaired and returned.

Long Delay On Item?...

HIM ... ?

for a

When a status card tells you to expect a long delay in getting an item you ordered, don't just sit and wait. Look for a substitute.

The Interchangeability & Substitute

OH, HE'S WAITIN' FOR A PART. STATUS CARD SHOWS THERE'D BE A DELAY!

SUPPLY

(I&S) microfiche does not list major end items but it does carry a bunch of items that pinch-hit for one another. So where do you find 'em?

Right there at your fingertips in the same envelope that brought you the Army Master Data File (AMDF).

The I & S microfiche is issued quarterly (Feb, May, Aug, Nov), so hold onto it until you get a new one.



• Write down the NSN for the back-ordered item.



• Find the Index page covering that NSN and put it on the viewer.



 Find the back-ordered NSN in the Described NSN column. It's the first column to your left on each



PULL OUT YOUR I+S MICROFICHE AND WE'LL CHECK IT OUT TOGETHER!



THE I+S FICHE IS DIVIDED INTO 2 PARTS --AN INDEX AND A GROUP FILE!

& S Index File

THE INDEX FILE WILL GET YOU STARTED IN YOUR SEARCH FOR A SUBSTITUTE ITEM! HERE'S HOW IT WORKS ...



 Write down the NSN in the Preferred NSN column—the next column over from the **Described NSN** column. Don't worry if the preferred NSN is the same as ordered your back-ordered NSN. You'll still need it when you go to the Group File.

DESCRIBED NSN

Back-

NSN

1015-00-078-5502 1015-00-342-1133 1015-00-772-7373 1015-00-779-6027 4935-00-083-8269 4935-00-084-8403

4935-00-084-8404 5120-00-227-7319 5120-00-236-2100 5120-00-236-2127 5120-00-277-9490 6645-00-013-5692 PREFERRED NSN

1015-00-078-5502 1015-00-078-5502 1015-00-078-5502 1015-00-078-5502 4935-00-084-8403 4935-00-084-8403 4935-00-084-8403 5120-00-236-2127 5120-00-236-2127 5120-00-236-2127 5120-00-236-2127

6645-00-397-6254





 Preferred NSN is the NSN that got you into the file. It may or may not be the one you need.

• Nomenclature gives you the name of the items in the group.

- Sub-Group (SG) letter tells you the relationship of the items within the group. Items with the same SG letter are interchangeable. Those with a different letter are substitutes-but only within a certain order-of-use.
- Sequence Code (SC) letter identifies the preferred order-of-use within the same Sub-Group. Se-

quence Code A for an item in Sub-Group A. for instance, is used before Sequence Code B in the same Sub-Group.

- . Described NSN lists the NSN's of the items suitable for swapping. Watch it, tho, the first NSN on the list may not be the one you need.
- Order-of-Use columns have the codes needed to sort out the described NSN's. The 2-letter codes in both of the Order-of-Use columns combine the letters in the SG and SC columns.

						DER-
PREFERRED NSN	NOMENCLATURE	SG	S C	DESCRIBED NSN	1	2
1015-00-078-5502	COVER MUZZLE	A	A			
	BRAKE	A	В	1015-00-342-1133	AA	AB
ALL ITEMS IN	- Trans	. A	C	1015-00-772-7373	AA	AC
THIS GROUP ARE	-	A	D	1015-00-779-6027	AA	AD
INTERCHANGEABLE.		12		1015-00-078-5502	AA	
NO MATTER WHAT	6.3	1				
YOU REQUEST, ONE		E		6		
OF THE NSN'S	We al	3	1	1100		
WILL BE ISSUED	A WILL					
USING THE		3 "				
ORDER-OF-	1110					T. III
USE-CODE.						

Look up the AB NSN on the AMDF first. If that AB NSN is not on the AMDF, try the AC NSN next and then the AD NSN last.

Group File

The sub group column shows different codes. That means not all the items are good subs for each other. Find your NSN in the Described NSN column— Now check its code in the column 1 under Order-Of-Use. Match that code with one in column 2 and you'll find a good sub.



SG	S C	DESCRIBED NSN	1	2
				_
A	1	6645-00-237-7065	DA	
В	A	6645-00-111-6019	BA	EA
O C	A	6645-00-718-3022	CA	C
C	В	6645-00-882-9799	CA	C
C	С	6645-00-013-5692	CA	E
D	A	6645-00-414-8277	DA	E
E	A	6645-00-727-3014	EA	F
F	A	6645-00-202-1101	FA	F
F	В	6645-00-396-6254	FA	
	C C C D E F F	C A B C C C D A A E A A F A	C A 6645-00-718-3022 C B 6645-00-882-9799 C C 6645-00-013-5692 D A 6645-00-414-8277 E A 6645-00-727-3014 F A 6645-00-202-1101	C A 6645-00-718-3022 CA C B 6645-00-882-9799 CA C C 6645-00-013-5692 CA D A 6645-00-414-8277 DA E A 6645-00-727-3014 EA F A 6645-00-202-1101 FA

Before you order a substitute, even have that sub on hand. No? Then whip out a request form and order it.

If you have a sub NSN on hand, or if you order a sub, remember to cancel your first request.

But keep the other NSN's handy to though, check your stocks. You may use later just in case your request for that choice bounces.

> WANT MORE INFO? THE CODE REFERENCE GUIDE FOR THE ARMS MONTHLY AMDE FILE, USACOA PAMPHLET 18-1 (Oct 79) HAS THE DETAILS.



Over coming the Iden

There are rules—and then there are exceptions to the rules.

Supply's no different. Even with the new part number item policy in DA Cir 700-29 Supply Requisition Processing (Apr 80) and Change 6 to AR 710-2, exception data supply requests are alive and well in the US Army.

Here's the run-down. For your items that have a part number and Federal Supply Code for the Manufacturer (FSCM) listed in a TM, FM, SC, SB, supply letter, GSA catalog or manufacturer's pub, fill out a DD Form 1348-6—unless you have a prepunched DA Form 2765 on the item.

DOCU- ROUT- M MENT ING &	MANUFACTURER'S CODE * UNIT OF QUANTITY REQUISI- DATE SERIAL
FIER FIER	FSCM PART NOMBER 12 23 24 25 26 27 28 29 30, 31 32 33 34 35 36 38 39 40 41 42 43
1 2 3 4 5 6 7	864034033631 EA00001 W456T893620031
	REJECT CODE OF CODE
* 1. MANUFACTURI Card Columns 8	ER'S CODE & PART SO. (When the) Cases
3. MANUFACTURER	2'S CATALOG IDENTIFICATION AND DATE 4. TECHNICAL ORDER NUMB
5. TECHNICAL MAN 7. DESCRIPTION OF	F ITEM REQUESTED 7a. COLOR 7b. SIZE
8 ENDITEM APPLI	ICATION AND SOURCE OF SUPPLY
	I'lu-TON TRUCK
Ba. MAKE	86. MODEL NUMBER
9. REMARKS	in TM 9-2320-266-34P, dated Feb 78,
	76, item 1.
DD 1 APR 77 13	148-6 NON-NSN REQUISITION (MANUAL)

tity

Grisis

ON

1348-6 ..

YOUR DD

- 5-part (digit) FSCM plus part number in Columns 8-22. (If your FSCM and part number add up to more than 15 digits put them in Block 1 in the Identification Data Section.)
- Write your document number DODAAC, priority demand code, unit of issue and quanitity you need on the request and send it on.
- The pub, catalog, supply list or whatever covers that part. (The Code—A for a pub reference, B for end item identification, C for noun description or D for drawing or spec number—goes in Column 70. Put the pub or drawing number, identification or noun in Columns 71-80.)
- Weapons/Equipment System Designator Code(W/ESDC) if one's been assigned to the part's end item. Use the Type Requirement Code when ordering end items.
- Any special funding code.
- For aircraft parts only—the serial number of the aircraft.
- If the end item model affects the part you need, give the make and model of the end item.

Items with more than 15 digits in the FSCM and part number have to be handled manually—outside the computer—so you'll have to wait a while on those.

No further work needed. Support'll get you the item or feed that request to computer for you, pronto.

Items with more than 15 digits in the

61



MAKE SURE YOU

INCLUDE ...

No-Number

But some items need a little babying. Maybe the item has no part give 'em to get you that item. number. Maybe you can't find the NSN that's not on the Army Master Data File (AMDF).

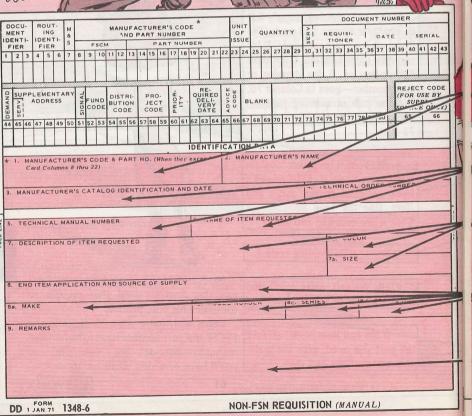
HOLD

Support needs all the help you can

Sure, you still fill out a DD Form FSCM for it. Or could be you find an 1348-6 with everything for an FSCM plus part number request. But you add some extra info.

> SO HOLD ON TO THE MECHANIC ASKING FOR THE PART ...

> > T GOT HIM. BONNIE!



Requests



- · Any letters, words, numbers or markings on the part? Who makes the part?
- Is there a pub reference to give support? Maybe just a pub that describes that section of the end item or illustrates the part? No? Can you sketch the part or take a photograph of it?
- What does the part look like? Describe the part and write its dimensions on the request (size, shape, color).
 - . Where does the part go on the end item? Get the model number of the end item, too.
- What does the part do? Pushes, pulls, turns, chug-a-lugs, covers, seals, whatever).

The DD Form 1348-6 has blocks for all that info. Fill 'em in -and clearly! Write what the item does and any special markings from the part in the Remarks Block.

Use the back of the form for the sketch of the part or staple the sketch or photos to the form.

Never give up on a part just because it has no part number or FSCM. You'll be surprised what a complete description and filled-out DD Form 1348-6 can do for you. But the key to that is a complete description. Skimpy info nets you nothing but a bounced request.

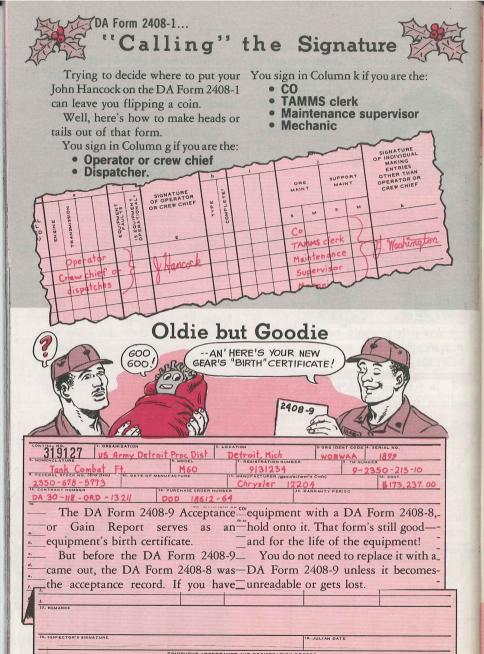
Those no-part number items or NSNs not on the AMDF take a little longer, of course. Support'll need time to track down their info-like the source of supply and (maybe!) price before passing your request on.

And computers are out for that type request. It's manual all the way with exception data supply requests.

But while you wait, fire off a DA Form 2028 Recommended Changes to DA Publications-or a DA Form 2028-2—to the outfit responsible for the pub that should carry that item and NSN.

THAT WAY, THE NEXT TIME YOU NEED THE PART, AN NSW-OR AT LEAST THE **ESCM** AND PART NUMBER -- SHOULD BE THERE!





DA FORM 2408-8, 1 JAN 64



Five of the 6 model trucks in the M915-series fleet may suffer from power steering failure. Users of the M916, M917, M918, M919 and M920 trucks should check the power steering cylinder stud ball for breakage before operation. This's the stud ball shown in TM 9-2320-273-20, pages 10-97 thru 10-103. Item 19. and in TM 9-2320-273-20P, Fig. 90, Item 35. This stud ball is not on the M915 truck. More details on the steering hazard are in TARCOM Msg DRCPM-HT 282005Z Aug 80.

Supply Handbook

FM 10-14-1, Commander's Unit-level Supply Handbook (Jul 78) is a must for your supply library. It's a handy reference not only for CO's, but for all supply folks who need to brush up on supply operations and property accountability.

SB 700-20 Goof

The Sep 80 update of SB 700-20 shows the wrong nomenclature for LIN W95400. The correct generic nomenclature for the item is Trailer. Cargo: 1/4-ton 2 wheel W/E. NSN's under this LIN are NSN 2330-00-706-5495, NSN 2330-00-732and NSN 2330-01-046-2855. The nomenclature for these NSN's is correct in the SB 700-20.

Steer Breakdown Warning! Chemical Alarm for M151A2

Forget the instructions in TM 3-6665-274-20 for installing the automatic chemical agent alarm mounting kit on your M151A2 1/4-ton truck. The straight poop is in Para 2-11 of TB 43-0001-39-4 (Jan 80).

TOW AZ Damper

Forget the article on Page 19 of PS 333. The art and info are wrong. If the azimuth damper seems wobbly, or if you have side-to-side backlash, have support check out your TOW traversing unit. Do not attempt to tighten the

M578 Stall Test

Do you get stalled when you try to find the stall test for your M578 recovery vehicle? Well. fret no more. It's in Para 4 on Page 2-18 of TM 9-2350-238-20 (Mar 72).

No Dual Reporting

Never report your missile equipment twice. If you report it on DA Form 3266-1, don't report it on DA Form 2406—and vice versa, AR 750-40 tells you how and when to use the DA Form 3266-

Would You Stake Your Life Won the Condition of Your Equipment?

☆ U.S. GOVERNMENT PRINTING OFFICE: 1980-757-003/1

WHERE THERE'S SINORIS SINORIS THERE'S



LOOK FOR A AIR CLEANER!