

JANUARY

Issue 206

PS

1970 Series

THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY

... AWRIGHT!! ... JUST  
HOW DO YOU FIGURE  
**THIS** AS **A1** PRIORITY  
UNDER THE **URGENCY**  
OF **NEED!??**

SUPPLY



# READINESS IS ALWAYS!

When an enemy is trying to do you in with a few well-placed mortar or rocket rounds, it's clear that you've got to have battle-ready equipment.

## Obviously.

But, when there's no shooting, and everybody settles into his peaceful job, it's not so clear that you've got to have your equipment battle-ready.

## Not so obviously.

You must, though — or you, your unit, your command and your country could get caught not ready. Then the guys who want to do you in might well do you in.

So, ready equipment is a must. No "Maybe . . .," "If . . .," or "Well . . . sometimes." It's got to be ready always.

This means you baby that gear while you use it. You keep it clean, keep it cool, keep it lubed or whatever it needs. Use the tech manual to make sure you do the operating and maintenance jobs right.

That way, no matter whether you're on the Mekong, along the Danube, near the Korean DMZ or contented in CONUS, you're ready, and your equipment's ready.

## KEEPING EQUIPMENT READY MEANS ONE BIG THING— P REVENTIVE M AINTENANCE



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January  
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Sgt. Half-Mast,  
PS Magazine,  
Fort Knox, Ky.  
40121



# M548 CARGO CARRIER

So you've got yourself one of the new 6-ton cargo carriers? It couldn't happen to a nicer guy.

... It has 312 cubic feet of cargo space to haul ammo, supplies, or soldiers over rough terrain and across rivers.

... On paved roads it can zip along at 38 MPH with a cruising range of 300 miles.

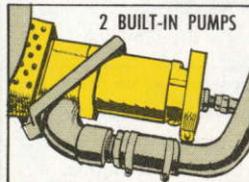
This vehicle is always ready for swimming—you don't even have to lower a trim vane. Two built-in bilge pumps take care of any water seepage.

ALL-IN-ALL THE M548 IS AS DANDY AND HANDY A VEHICLE AS YOU'RE LIKELY TO FIND... HERE'S A GOING-OVER LIGHTLY FOR YOU LUCKY OPERATORS!

Among other goodies is a cargo compartment door hinged at both ends so you can open it either left or right or take it off entirely. Open it at both ends at once only if you want to take it off. Keep it on and closed while operating. The cargo deck has 2 positions and there're plenty of tie-down eyes at both positions.

The M548 has a pintle to haul a trailer and a 20,000-pound capacity front winch with 200 feet of cable for towing or recovery.

There are 2 sets of steer levers, one for regular steer and one to give you pivot steer.



2 BUILT-IN PUMPS



PLENTY OF TIEDOWNS



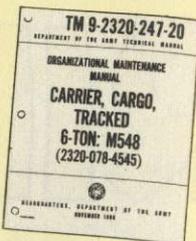
A PINTLE FOR TOWING



REGULAR AND PIVOT STEER LEVERS

**NEW PUBLICATIONS**—Manuals in the TM 9-2300-224-series are being superseded for use with the M548 by a new series, TM 9-2320-247. TM 9-2320-247-10 (Feb 69), TM 9-2320-247-20 (Nov 68), TM 9-2320-247-ESC (May 69), LO 9-2320-247-12 (Nov 68) and TM 9-2320-247-20P (May 69) in this series have already been published.

These pubs will give you most of the dope, but here are a few special things you ought to know. . . .



**TRANSFER GEAR CASE**—The transfer case on the M548 is different from the transfer on most other members of the M113A1 family. Instead of moving oil to operate a ramp, its oil pump clears oil from the transfer gear case.

If this pump conks out, oil will pile up in the transfer. Some of it will be forced out the breather but the seals will probably blow. Even worse, the differential won't be getting all the oil it needs and can burn up.

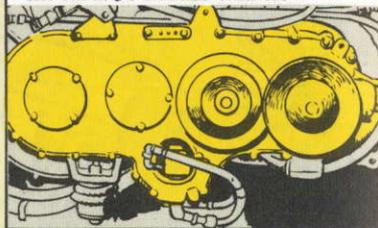
Start and stop smoothly. Jack-rabbit jerks can break your transfer gearcase.

Check the oil in your differential the way it says in your LO before

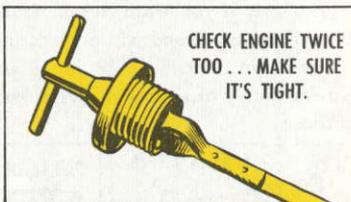


you start the engine and again after the oil is warmed up. If you have to add oil this shows something is wrong because you shouldn't need any.

Cannibals please note: The M548 now uses transfer case FSN 2520-179-5608 which is also found on the XM730 missile carrier.



**ENGINE DIPSTICK**—Check it before starting and again when you get the oil to normal operating temperatures the way it says in the LO. The special thing is to screw the dipstick down tight after you make your reading. (Turn it clockwise to tighten.)



If you forget to screw it on, the crankcase pressure can blow it out and the oil can go too—leaving you with a burned-out engine.

**DIFFERENTIAL VENT**—If there're signs that oil has been blowing out through the differential vent, do this with engine running:

Uncouple the quick disconnect on the vent line from the transfer to the differential. Grab the vent line and hold the quick disconnect valve open with the eraser end of a pencil.

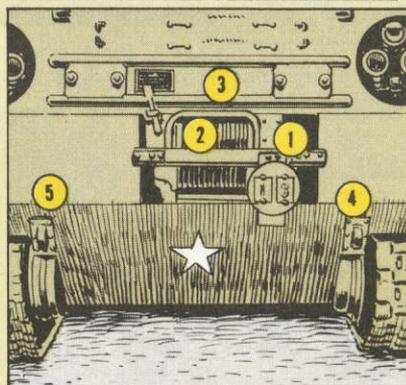


No oil should come out. If it does, tell your mechanic. It's a sign that you probably have a bad sump pump on the transfer case or the quick disconnect on the differential return is not hooked up right.

**DIFFERENTIAL OIL FILTER**—Make sure it's cleaned at least every Q service and before you put a new vehicle in service. If the filter gets clogged often, it means your oil's dirty, so . . . change it!

THE FOLLOWING ARE DAILY CHECKS.

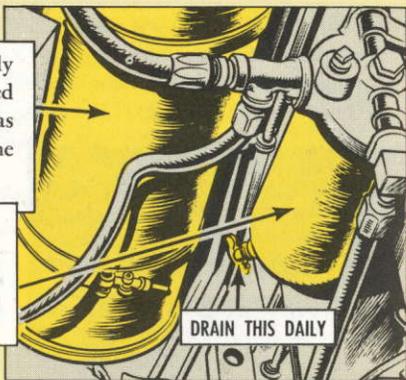
**DIPSTICKS**—Eyeball all five dipsticks daily before operation.



1. Engine oil
2. Transmission
3. Differential
4. Left final drive
5. Right final drive

**AIR SEPARATOR TANK**—Daily draining of the air separator called for by a tag attached to the tank has been superseded by draining of the primary fuel filter.

**PRIMARY FUEL FILTER**—Drain daily before starting engine. If a lot of water and gook comes out, drain the secondary filter too.



**AIR CLEANER**—Service air cleaner element as often as necessary. (Daily in dusty areas.) If element is frayed or bent out of shape, replace it. If you can get 100 PSI moisture-free compressed air, use it to clean the element like this:



1. Blow dirt off inside of element.

2. Blow dirt off outside of fins.

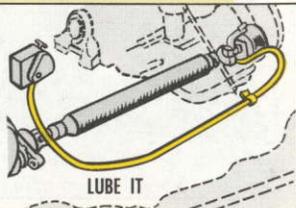
3. Blow dirt off inside of element again.

WEAR GOGGLES TO PROTECT YOUR EYES

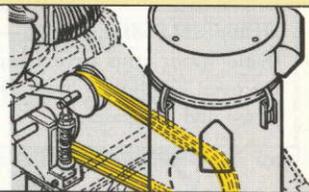
If you can't get compressed air, clean by gently tapping fins by hand. Be sure you do this gently and without beating up the ends of the element.

### MAINTENANCE MUSTS

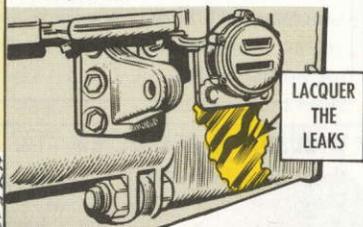
**PTO CABLE**—This cable will get stiff and hard to work unless it's lubed. Putting lube on the cable is not easy because there's no grease fitting. So work grease into it by hand. This is a little trouble but worth it.



**DRIVE BELTS**—Generator, engine coolant pump and fan drive belts can get thrown but it's most likely to happen with the fan drive belts. Check both front and rear fan drive belts and the coolant pump belt every 50 miles or so to make sure the tension is right.



**FUEL EXPANSION TANK**—If there's a leak from your fuel expansion tank get your mechanic to work over the inside of the tank with lacquer the way it tells in TB 750-981-2.



**RIGHT SIZE DUCT?**—The duct between the air cleaner and the engine might be too short. Loosen the clamps at each end of the duct and pull it out. If it's 22 inches long, (give or take 1/4-inch), replace it with duct FSN 2940-913-1987, which is 28 inches long (give or take 1/4-inch).



**CHANGE DATA PLATE**—The data plate on the inside of the right cab door may read that the vehicle is an XM548E1. Scratch out or paint over the X and the E1 so you are left with M548.



IF IT SAYS "XM548E1", CHANGE IT!

**TRACK SHROUDS**—In the wet season in SEA mud and trash will ball up under your shrouds. You're better off without 'em, so take 'em off, and turn in to your DS, or store 'em. Do not throw 'em away.



IN DUSTY AREAS—SERVICE YOUR AIR CLEANER DAILY!



**WINDSHIELD WIPER ARMS**—Some of the windshield wiper arms have a bright chrome finish. Go over 'em lightly with sandpaper and then prime and OD paint.



**WINDSHIELD WIPER BLADES**—To get a good wiping action make sure the blades are free to move throughout their entire arc without hitting anything.

If they hit the rubber seal that holds the window in the windshield, loosen the locknut at the base of the arm and adjust arm as necessary. (You may also have to make an adjustment at the blade adjusting screw.)

MAKE SURE YOU HAVE ONE SIDE OF THE DOOR LOCKED BEFORE YOU TRY TO OPEN THE OTHER SIDE!

**WINDSHIELD DEFROSTER**—Let the inside of the cab heat up first before you turn on the defroster or the sudden heat may crack a windshield.

**CARGO DOOR**—Keep the cargo door in place when you run the vehicle because it ties the sidewalls together and prevents side-to-side movement. When the vehicle is operated without the cargo door the rear cargo compartment sides will break.



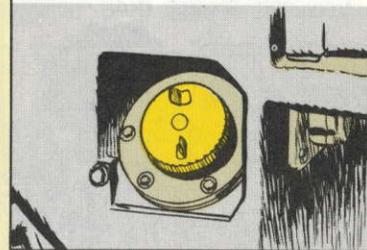
**HEADLIGHT HAZARD**—A little trip through the brush can push your headlights out of kilter. Get 'em lined up again before dark so you don't put 'em on and find they light up everything but the road.



**WINCH DRAIN PLUGS**—Maintenance will be easier if you replace the 6 female hex-drive winch drain plugs with female square-drive drain plugs FSN 4730-850-3883.



**FUEL FILLER CAP**—The only fuel tank filler cap authorized for use is the unvented type. FSN 2910-753-9118 listed in the -20P will get you an unvented cap. Be sure this is the one you have.



**SHIFT LEVER**—If the shift lever keeps coming out of adjustment it's a sign it's worn out. Get a new one. (See Pages 3-267 and 3-76 of TM 9-2320-247-20P (May 69) for the parts.)



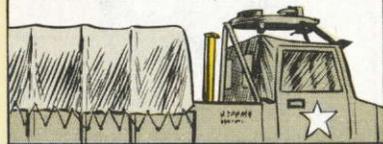
**NEUTRAL START SWITCH**—With this switch out of adjustment you could start the engine with the transmission in gear and somebody might get hurt or the vehicle could get damaged.

See if the starter will work with the transmission in reverse or in 1-3 range. If it does, replace or adjust the switch.

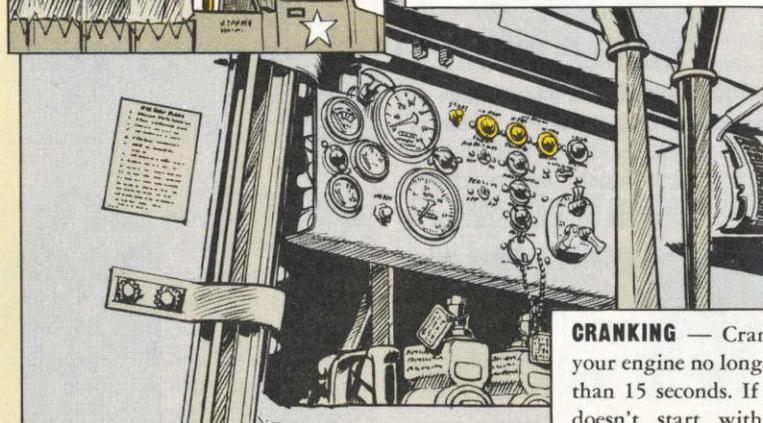


SAFETY FIRST

**EXHAUST STACK** — The engine exhaust stack gets pretty hot. So when you open the front flaps of the cargo cover, roll them to the inside so they won't touch the stack and get burned. Also, keep the rest of the front cover securely tied.



**INSTRUMENT PANEL** — Having trouble with your instrument panel lights and gages not always working? This will happen when the panel is not firmly grounded. The mounting bolts work loose and the panel "floats" without having a continuous path to ground. To cure this make sure the bolts are tight.



**WARNING LIGHT** — After you get your engine running the engine oil pressure warning light should go out in 10 seconds. If any warning light comes on after the engine has started, call the mechanic.

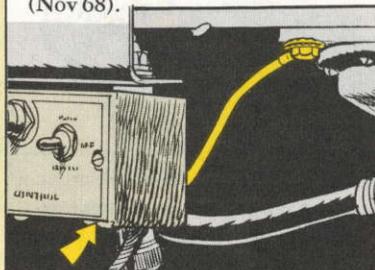
**CRANKING** — Crank your engine no longer than 15 seconds. If it doesn't start within that time, wait 30 seconds before starting again. If you can't get it going after your 5th try, call for help.



## MORE GOOD POOP

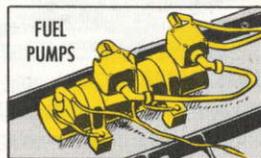


**FAULTY HEATER** — If the personnel heater is not working right, check the control box ground wire where it makes contact with the control box. If it's loose, not making good contact, your heater will sometimes fail to work. Check the heater troubleshooting table on page 3-6 of TM 9-2320-247-20 (Nov 68).



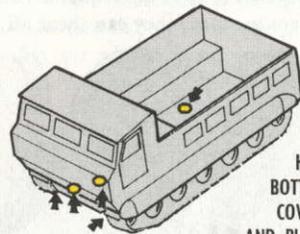
**STOWAGE LOCATION** — The stowage location list in the BIIL of TM 9-2300-257-10 does not apply to the M548. Use pages B-9 to B-16 of TM 9-2320-247-10 (Feb 69) instead.

**FUEL PUMPS** — They're moisture-resistant, but continuous soaking in bilge water can short the wiring... so don't let bilge water stand in your vehicle. Turn the bilge pumps on for a few minutes. To keep the fuel pumps from rusting, pull the hull drain plugs when parking outside in rainy weather, but make sure they're replaced before an amphibious operation.



ARE YOU SURE YOU REPLACED THOSE HULL DRAIN PLUGS WE PULLED OUT THIS MORNING??

GLUB



HULL  
BOTTOM  
COVERS  
AND PLUGS

**NEW CLAMP**—To make it easier to remove and replace the power pack, a quick-release V-band clamp is standard equipment on late-model vehicles. The new clamp, FSN 5340-886-7081, is a direct replacement for the other clamp.



GET A NEW V-BAND CLAMP-- AND USE THE PROPER FSN

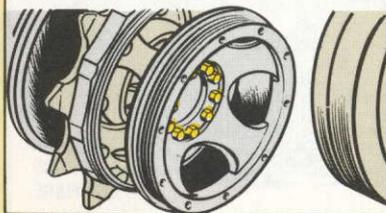
**PTO CABLE**—The power-take-off cable should be clamped either at the ferrule or behind it. To straighten the loop you may have to put the bracket in the second hole.



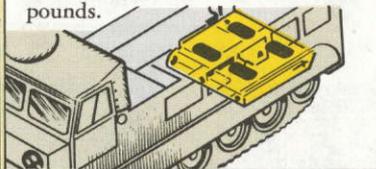
**FORDING**—When your M548 is combat loaded you have only a 12-in freeboard, so the loading has to be done exactly right. Keep the weight balanced side-to-side for an even keel. Careful not to overload.



**FINAL DRIVE**—Check the torque on your final drives often. The 10 screws on each final drive sprocket take 100-115 lb-ft of torque. If you let 'em get loose they can shear off.



**FUEL TANK ACCESS COVERS**—Check the 4 fuel access covers for loose screws. If they're backing out, remove and clean 'em with solvent. Draw 88 tapered lock washers FSN 5310-194-9211 (MS35336-27) from supply. Then reinstall the screws with lock washers and torque the screws to 45-50 inch pounds.



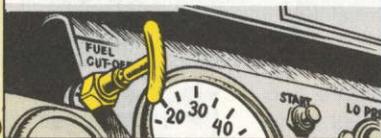
**NO SPEEDING**—Your M548 is a cargo vehicle so it can't be expected to keep up with an M113 over long distances. Stay under 20 MPH when fully loaded.



**TOWING THE M548**—Disconnect both final drives before towing the M548 or you'll run the risk of tearing up your transmission.



**PUSH-PULL CABLES**—Operate all of them at least once a week to make sure they work. If they're hard to operate, grease and adjust them. If this doesn't work, have them replaced.



**RADIATOR CAPS**—Screw-thread radiator caps on early vehicles can lock up tight. A little anti-seize compound rubbed on the threads prevents this.

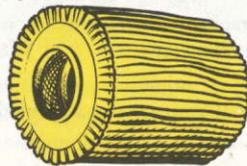


## MECHANIC'S MEMORY AID

**FRONT ENGINE MOUNTS**—It's easier to get the M548 power pack out if you make up a 3-ft extension for the 15/16's socket you use on the front engine mounts.



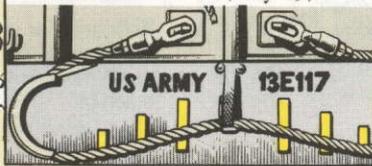
**AIR CLEANER**—Need a new air cleaner element? You can order either of 2 optional air cleaner elements, FSN 2940-930-2065 or FSN 2940-930-2066.



**DIFFERENT BARS**—The torsion bars for the M548 are different from the bars used on the other members of the M113/M113A1 family. Use FSN 2530-912-9511 for left torsion bars and FSN 2530-912-9512 for right torsion bars.



**TOW CABLE**—The rubber strip pads that keep your tow cable from digging into your rear cargo door sometimes work loose and fall off. If you find loose ones stick 'em back on with a dab of epoxy cement. If they are already gone, order new ones from pages 3-128 and 3-301 of TM 9-2320-247-20P (May 69).



THAT REMINDS ME MY M548 NEEDS A NEW AIR CLEANER!



## TWO FINAL TIPS

If you would just as soon get hit in the head with a steel beam, pay no attention to this. . .

The beam you could get hit with is the cargo hoist beam on M548 cargo carriers with manufacturer's serial number of C850 or higher.

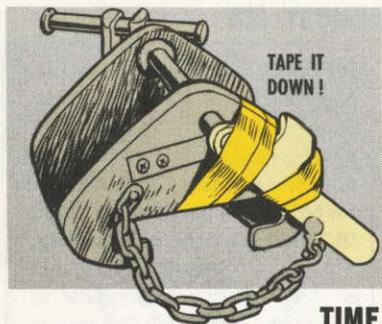
Seems the locking handle of the beam support pin can come unlocked letting the beam fall. ('Course there are 2 beam supports so the beam would likely not

## SAFETY WARNING



fall all the way but even so it could give you a nasty clout on the head.)

An MWO to take care of this is in the works but for now make sure the beam support locking handles stay locked. You can do this by wrapping the handles with a couple of turns of tape or wiring them in position. Either way is OK just so they don't unlock by accident.



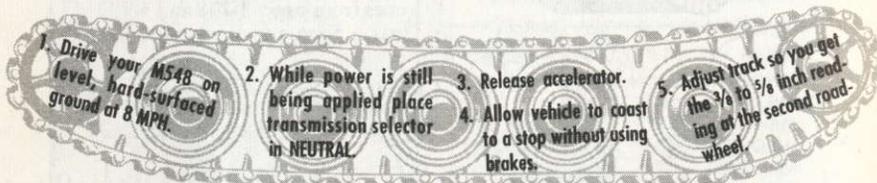
## TIME SAVER

A little less slack in the track saves lots of time on your M548 cargo carrier. Page 3-33 of TM 9-2320-247-10 (Feb 69) says "Distance must be 1/4 inch or more with track resting on third road wheel."

Most everybody has been making it 1/4 inch on the nose—which means they have to readjust the track every time they change the vehicle from loaded to unloaded or the other way around.

To save yourself sweat, tighten up on the track so the distance between the top of the second roadwheel and the bottom of the track is 3/8 to 5/8 inches with the track resting on the third roadwheel.

Here's how you do it and makes no difference if your carrier is loaded or unloaded:



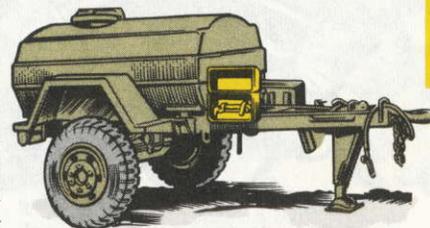
## H2O ON ICE



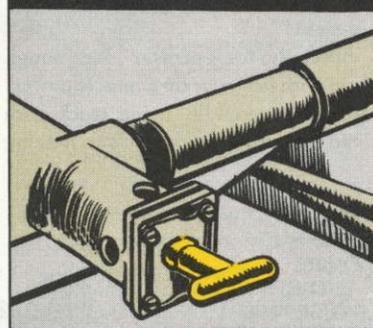
Your M149, M149A1 and M625 water tank trailer and ol' man winter don't mix without help — your help. Like when you forget to drain the outside pipes.

Water left in those pipes will freeze solid.

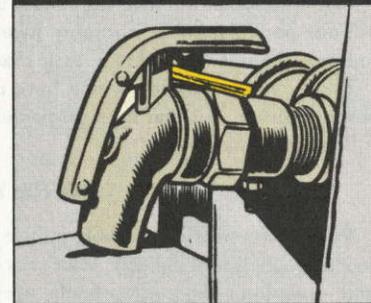
So, in freezing weather, you drain the pipes every time after drawing water. You can do it fast 'n' easy:



1. Shut off water with main 'T' valve.



2. Then open all faucets — and prop 'em open with a piece of wood.



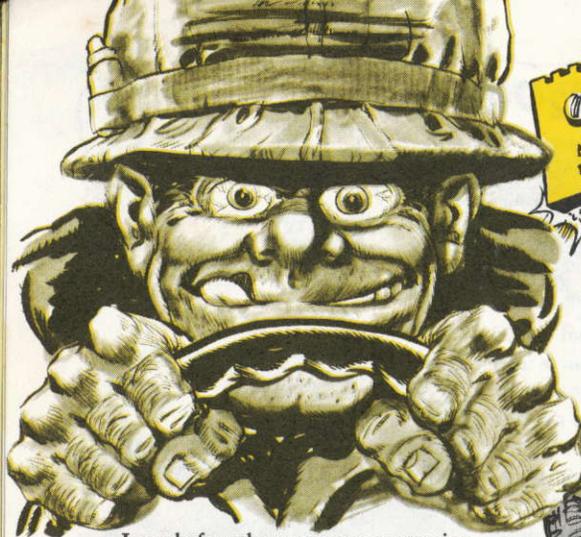
Now the pipes are empty, and there's nothin' in there to freeze.

Although your tank trailer's got a fiberglass liner that'll keep your supply from freezing for a long time, y'gotta be sure to keep the manhole and filler covers battened down tight. This'll keep water heat in and freezing cold out.

In sub-zero weather, it's a good idea to park your water trailer in a shelter where it's warm — like in a tent where there's a field range operating.

And always drain your water trailer completely if you're goin' to leave it parked out in freezing weather for a long time.

# POWER-MAD STEERING



Long before there was power steering—or even a truck to put it in—an ol' Roman philosopher said:

"He who has great power should use it lightly."

Now, with a li'l twist, it comes out like this:

"He who has power steering should use it right!"

Your power steering is mighty handy, especially for operatin' over rough country. What if you had to wrastle that wheel with just your own muscle power!

Even a 90-lb weakling would have no trouble ramroddin' a big truck with power steering. But that same 90-pounder can bust up a truck's power steering if he doesn't use it right!

## TIME FOR YOUR MUSCLE

Your power steering will help muscle you through just about any place, any time—as long as your wheels are rolling.

You're askin' too much of your power steering, though, if you try to turn your wheels while sittin' in a mud hole or frozen rut.

Before you try to steer out of that bad spot you're stuck in, you've got to dig out—even if you've got help from your front-mounted winch or from another vehicle.

SURE I CAN DIG, GEORGE. I CAN DIG GOOD, GEORGE.



HERE IS A LITTLE SOMETHING FOR YOU PUSSY-CATS-TURNED-TIGER WHEN YOU GET BEHIND THE WHEEL OF A 5-TON MULTI!

## TIME IS KILLER

So you unlimber that ol' shovel and make space all around your front wheels—space that's big enough and flat enough for your wheels to roll while you're steering.

Then you rock your truck as you turn your wheels in the direction you want to go.

Even when you're not stuck—like you're just parked on a good surface—it's best to get your truck rollin' a little before you start to turn your wheels.

Your power steering will 'preciate it.

Sure, you can make a hard right or left turn with your power steering—but for how long is the question. The answer is:

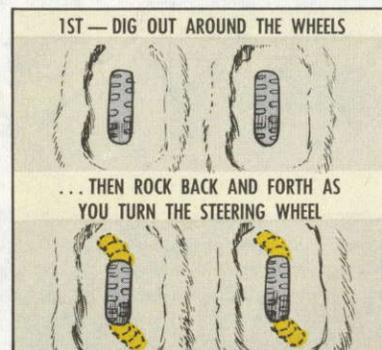
"Never hold your steering wheel in full steer position, right or left, for more than 5 seconds."

Why? As you turn harder, pressure goes up in your power steering pump. As pressure goes up, so does temperature. So a hard turn for too long will burn up your pump.



## MWO FOR 5-TONNERS

Power steering on some 5-ton multifuel engine trucks hasn't been workin' so hot, so MWO 9-2320-211-30/12 (Nov 68, corrected Sep 69) was issued to straighten out the trouble. You'd better check this MWO and see if your 5-ton multifuel falls in the serial number and contract number groups that get their power steering pumps improved.



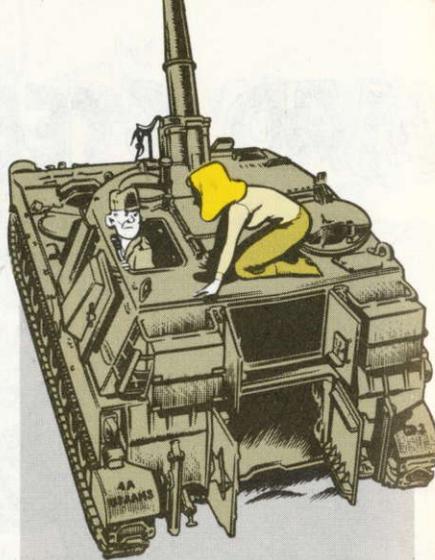
## M109 HOWITZER KIT CONFUSION

Like you already know, the elevating cylinder on all M109 SP howitzers serial number 1123 and above is different from the elevating cylinder on early production models.

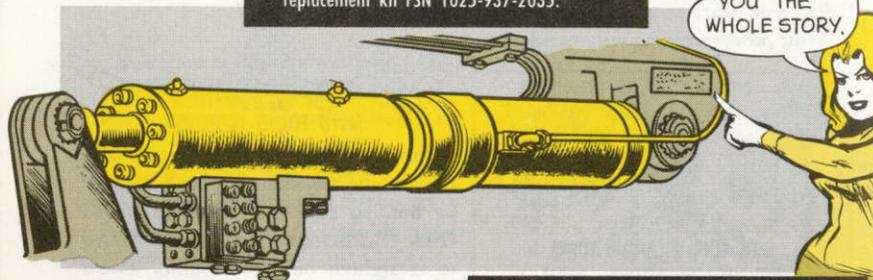
But what you might not know (and the TM's don't tell you) is that there're 2 kinds of late model elevating cylinders and a different seal kit is needed for each one.

So there are 3 different elevating cylinders each of which can be repaired only with its own seal kit.

Here's the whole thing in a nutty little nutshell for your DS:



1. Early model cylinder, Part No. 10921569, (on M109's under serial number 1122) takes seal replacement kit FSN 1025-937-2035.



THIS  
PLATE TELLS  
YOU THE  
WHOLE STORY.

2. Late model cylinder, Cadillac Gage with PN 10947990 stamped on cylinder data plate, (on M109's SN 1123 and above) takes seal replacement kit FSN 1025-946-0044.

3. Late model cylinder, Benton on data plate and should be marked PN 11643762 but some may be marked with PN 10947990, (on M109's SN 1123 and above) take seal replacement kit FSN 1025-782-9651.

M37 RECOIL  
MECHANISMS...

**STOP  
THE  
SHOCK**



A cool cannon cocker never lets his piece go into recoil shock if he can help it. And tropical heat—like in SEA—really expands recoil oils in those M102 105-mm towed howitzers.

The solution is to establish a **minimum** instead of **normal** oil reserve in your M37 recoil mechanism.

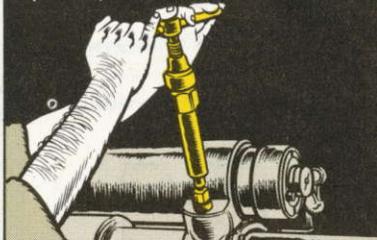
1. First step is to drain all the oil in order to establish a zero reserve.



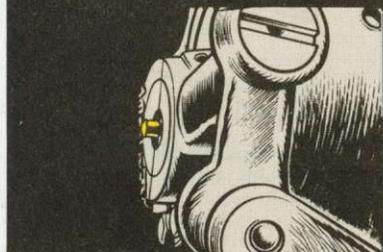
2. Zero reserve is when the index pin protrudes as far as possible beyond the front head of the recuperator cylinder.



3. Replace just enough oil to make the index pin barely move inward.



4. This is the minimum reserve position.



Watch the replacement oil for contaminants to be sure only oil enters the recoil mechanism. And make certain all air is purged from the filling hole by twisting down on the oil gun handle as far as possible before removing the gun.

Just as important . . . wait for the lowest possible temperature to reduce your reserve. This will leave the most space for heat expansion of the recoil oil during firing of the weapon.

YOUR M2'S SPARE BOLT WITH THE "IN" CROWD?

# Beware Old

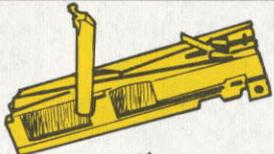
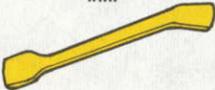
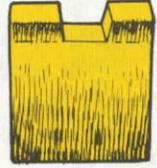


Heck, you'd never tool off to Nowheresville with a spare tire that doesn't fit your car.

So why take the much bigger risk of toting along a spare bolt that won't work in your flexible or cupola-mounted M2 50-cal machine gun? Matter of fact, why keep any M2 part that you can't depend on?

Here's the pitch: Certain parts in your bolt group must get along with certain other parts in the barrel extension and buffer groups — compatibility of internal

## M2 COMPATIBILITY CHART

THIS Bolt Group	PLUS THIS Barrel Extension
 <p>with</p>  <p>Accelerator Stop Lock FSN 1005-716-1300</p> <p>and</p>  <p>Accelerator Stop FSN 1005-716-1301</p>	 <p>with</p>  <p>Breech Lock FSN 1005-716-1302</p>

# Misfits

NOW LET ME SEE, WHERE WAS THAT SPARE BUFFER I WAS KEEPING?



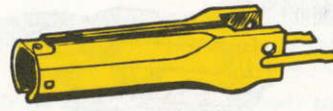
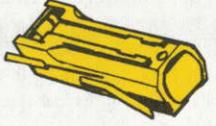
parts is the name and aim of this game.

With all the old M2 parts still kicking around you could get fouled up. . . .

Time was you had a choice of 4 combinations of old and/or new parts in these 3 groups. But now the choice boils down to the buffer parts only — those certain parts in the bolt group and barrel extension must all be new.

This chart'll show you. The parts with FSN's are new — the ones with part numbers are old and can't be requisitioned any more.

## M2 COMPATIBILITY CHART

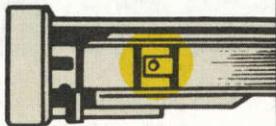
GO WITH EITHER	
This Buffer Group	or This Buffer Group
 <p>with</p>  <p>Body 5503941</p> <p>and</p>  <p>Buffer 5504078</p>	 <p>with</p>  <p>Body 5503941</p> <p>OR</p> <p>Body FSN 1005-726-6835</p> <p>and</p>  <p>Buffer FSN 1005-726-6820</p>

## WEED OUT THE MISFITS

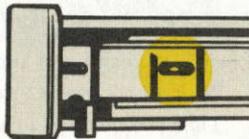
Now examine your M2's innards—both the spare bolt and the one in your weapon, plus the barrel extension and buffer groups—to see how they stack up.

### BOLT GROUP

Turn it upside down. If it looks like this, OK, you've got the new lock and stop in it.



... But if it looks like this, you've got the old one-piece sear stop and pin in there. Get your armorer to replace it with the 2 new parts.



### BARREL EXTENSION

Look at it from the top. If you have the cutaway breech lock in there, fine.



... But if it's the solid type, get your DS guys to replace it with the cutaway type.

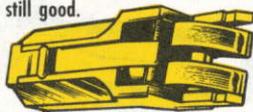


### BUFFER GROUP

Turn the body upside down. If its surface is smooth, you've got the new one.



... But if it has a tube lock spring and/or groove, it's the old one. Get your armorer to unstake this spring and get rid of it. The body's still good.



Now pull the buffer assembly out of the body. The old type buffer has a perforated bottom and a screwdriver slot on its rear end. The new one is smooth on top, bottom and rear.

#### NEW BUFFER



#### OLD BUFFER

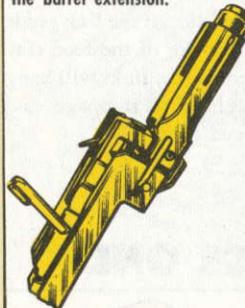


Remember, you use the old-type buffer only with the old body after the tube spring's been removed, natch! But the new buffer can be used with either the old or new type body.

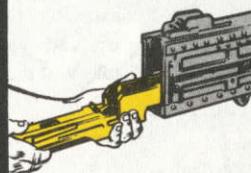
## NOW FOR THE REAL TEST

To make absolutely sure you've got all those internal parts up to snuff . . .

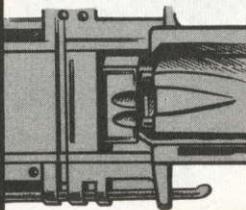
Assemble the buffer group to the barrel extension.



Shove in the spare bolt group . . .



And then install the whole shebang in your M2. See how these parts work together in your gun.



IF THE BOLT DOES NOT GO ALL THE WAY—(LIKE IT STOPS AT 3/4 IN. FROM HOME) THEN YOU'VE GOT A FOULED-UP PARTS MIX AND YOU MUST CHECK BACK OVER THE PARTS.

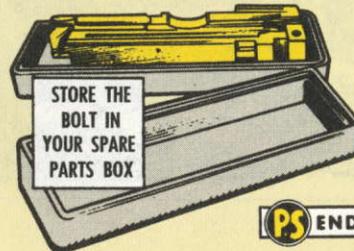
### A WORD ON OLD PARTS AND SPARES

Be sure you check that old body and buffer carefully. If either one is badly worn or chipped or bent or otherwise damaged, replace 'em with new ones. These oldies, y'know, aren't made any more.

And make a habit of checking your spare bolt regularly, just like you'd double-check the air pressure and condition of your spare tire. Keep that bolt protected in the spare parts box. Take it

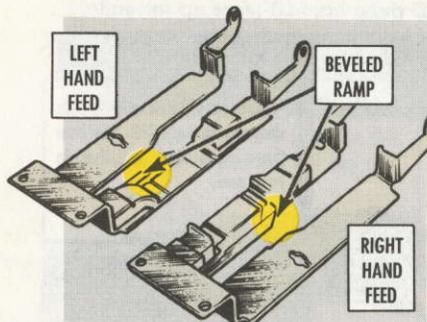
out once a month anyway for cleaning and lubing and inspecting.

'Cause in the showdown your M2's never any better than its spare bolt.



STORE THE BOLT IN YOUR SPARE PARTS BOX

## SLANT TOWARD THE SLOT



Remember, you M85 machine gunners — mox nix if you're setting up for right- or left-hand feed, always face the beveled or slanted side of the link guide toward the center slot of the feed tray assembly. Otherwise the links will hang up and you'll have a stoppage and maybe a damaged gun.

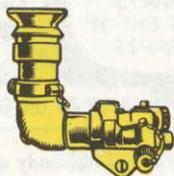
## M53 SIGHTUNIT-- ONCE ONLY

NOT EVERYBODY REALIZES THE M53 SIGHTUNIT FSN 1240-856-9452, ON YOUR 81-MM AND 4.2-IN. MORTARS IS INITIAL ISSUE ONLY. SO, IF YOU NEED A REPLACEMENT, ORDER THESE COMPONENTS SEPARATELY:

BIG SIX, THIS IS BIG FIVE—WHERE'S THAT SIGHT-UNIT??



M166  
Carrying case  
FSN 1240-823-5611



M109 Elbow  
Telescope  
FSN 1240-823-5612



M128 Telescope Mount  
FSN 1240-823-5613

## DRIVERS CAN BE CRACKED



No, not you guys who drive the prime movers.

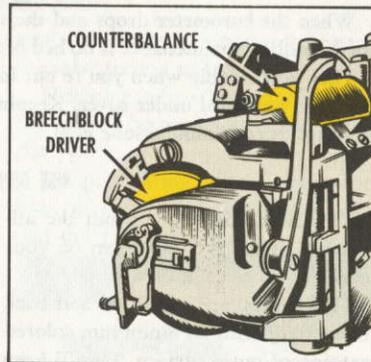
It's the breechblock driver that might develop cracks . . . just so they don't reach all the way across the diameter of the face of the driver.

If the breechblock will seat completely, open and close and go through its complete cycle of operations, cracks in the driver should not cause any trouble when you fire.

To have as little breechblock driver cracking as possible, you need to adjust the counterbalance assembly for smooth and even operation of the breech so it opens and closes without slamming or so you won't have to use a lot of muscle.

If your counterbalance needs adjustment your friendly support mechanic can easy do it by following para 65 on page 131 of TM 9-1025-200-35 (Apr 65).

This applies to all 155-MM towed howitzers including the M114, the M114A1 and the M123A1.



BREECHBLOCK  
DRIVER

PULLING HUEY (UH-1) WINTER MAINTENANCE?

GET A GO



NO, I'M NOT COLD! DEPENDS ON WHICH PARTS YOU COVER!

When the barometer drops and the snow begins to fly up north, pulling maintenance is no bed of roses.

That goes double when you're out in the boonies and you can't get your bird under cover. Keeping 'er "snug as a bug in a rug" is your number-one goal.

### USE BIRD COVERS

This is the time to dig out the all-weather covers and put them on your baby.

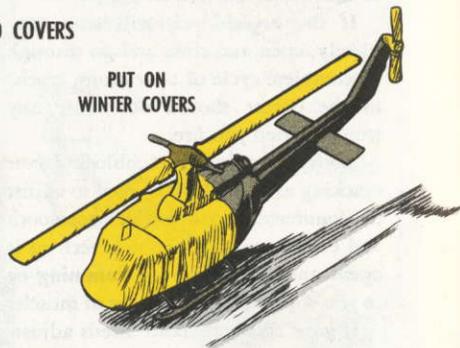
The covers are made of soft-back cotton twill with an aluminum colored waterproof outer surface. They'll keep the snow off of the rotor blades, transmission and 90-degree gear box—prevent water from getting into the bird where it can freeze up the works.

Cover protection will get your bird back in the blue much faster, with less elbow grease, than going thru a deicing chore on unprotected surfaces.

Use covers when the bird is outside for a half-day or longer in freezing temperatures, when you expect rain or snow.

One point, tho. Be sure the surfaces to be covered are dry so the covers won't freeze to the bird. Secure 'em with the tie cords and eyelet tabs attached to the covers.

PUT ON WINTER COVERS



OD THING GOING



### COVER ENGINE ALSO

Recip engines need thawing out—not so with the Huey T-53 engine.

The only protection you need is to

apply hot air from a portable heater at the inlet section to free it.

Never try to free the compressor with the starter because you could burn it out.

No pre-heating of the main rotor hub, main transmission, intermediate and tail rotor gear boxes or engine is



use the engine intake and exhaust covers.

When you take the covers off, focus in on the inlet area. If wind drove any snow in there get rid of it.

Then, take off the filter separator and rotate the compressor rotor to make sure it's not frozen. If the rotor is frozen



needed since the oil used for low temperature operation will continue to flow.

When the mercury sinks out of sight and the engine is cranked up, oil pressure will go beyond the red line.

So, run the T-53 at flight idle until you get an oil temperature reading.

Then, continue normal operation, and the pressure and temperature will stabilize.





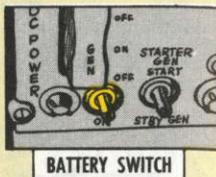
PRE-HEATING THE BATTERY.

OH!

### SAVE THE BATTERY

The nickel-cadmium battery in your Huey will hold up real well in cold weather. You can get satisfactory cold starts down to -65 degrees F. You won't need to preheat the battery at temperatures warmer than -40 degrees F.

That package of power will put out for you if you keep drain on the battery to a minimum. During engine starts don't turn on the battery switch until just before starter engagement. During shutdown, turn the battery off as soon as possible.



### SAMPLE THE FUEL

JP-4 fuel in your bird will keep 'er purring no matter how low the temperature goes. Not so with JP-5, which will give you long starts and erratic heater operation (if you have a combustion type heater) at temperatures lower than +10 degrees F.

Use JP-4 and be sure it's clean and DRY. Water in the tanks can cause the fuel boost pumps to freeze . . . you won't even get off the ground.



Drain the water out of the fuel system before running the pumps again.

You could even have trouble with the fuel filter which is a two-stage job with a bypass valve.

If the element becomes clogged with ice particles the bypass valve will divert the fuel into the second stage of the filter. At this point the fuel filter caution light will come on which means that the element has to be cleaned before the next flight.

Your best bet to keep water out of the fuel is to make with the sampling jar regularly.

Water will settle to the bottom of the fuel tanks so drain off JP-4 until you get no more water.



### KEEP 'ER CLEAN

When your bird comes to roost in deep snow eye the bottom of the fuselage the first chance you get. The cargo hook extends below the fuselage and may be packed with snow.



Clean the hook out and give it an operating test so that you can haul external loads.



When the landing light is lowered for a touchdown in white stuff, eye the light cavity before it's retracted. A packed cavity will prevent the light from going all the way up and damage the motor.

Sweep loose snow out of the cabin before each flight. Otherwise, it will turn to water when the bird heater is turned on and run into compartments under the floor. The water will freeze and give you a gradual weight increase . . . maybe even restrict control movements! Be sure you eye the drain tubes in the fuselage and tail boom. Tubes jammed with ice and snow won't hack it.

If your baby gets caught out in the cold get rid of ice and snow, especially on the main and tail rotor blades. Do it up brown. If ice and snow removed from the rotor head and blades lands on the fuselage or tail boom clean it off before it freezes.



You'll find all the info you need to do the job in TM 55-410 (7 Mar 66) . . . Chap 2, Maintenance Under Cold Weather Conditions.

Pulling maintenance during the winter is going to take extra time and muscle. Get a good thing going for you—protect your bird as best you can.

# CABLE PM

POP

# WRAP-UP

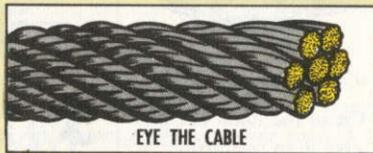
I TOLD YOU WE HAD A WEAK CABLE...

BUT IT WAS ONLY ONE STRAND!

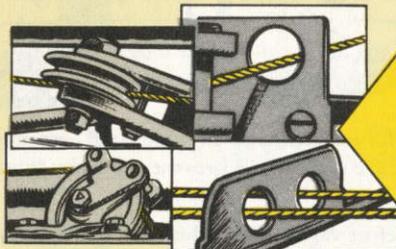


The weak link in a chain, or an aircraft control cable, can upset the applectart. Oh, the cable won't fail sudden-like because it's made up of 7 strands with either 7 or 19 wires in each strand. It's woven together for added strength.

But, one wire will let go—then another. You'll have time to spot broken wires, and save the day, if you eye the control cables as called for in the bird PMI and PMP checksheets.



When you eye the cables focus on those places where the cable makes contact with pulleys and fairleads. That's where you'll get cable wear and broken wires.



Even with 20-20 eyesight you can't spot broken wires right-off. And running your hand along the cable will give you a mean cut when you hit a broken wire. So, latch onto a piece of cloth. Cheesecloth works real well.

Run the cloth over the cable and a broken wire will snag the cloth.



Sight in on the area. Flex the cable, and the broken wire will stand out like a sore thumb.



The checksheets usually have the lowdown on how many broken wires are allowed in each strand before the cable has to be changed.

LOCATION	CABLE TYPE	ALLOWABLE BROKEN WIRES PER STRAND
CONUS	7 x 7	2 per inch of strand provided that not more than 3 exist in that inch of cable
OVERSEAS	7 x 7	3 per 1 ft length of cable
COMBAT	7 x 7	3 per 2 ft length of cable
CONUS	7 x 19	3 per inch of strand provided that not more than 6 exist in that inch of cable
OVERSEAS	7 x 19	6 per 1 ft length of cable
COMBAT	7 x 19	6 per 2 ft length of cable
ALL	1 x 19	1 broken wire per length of cable

IF YOUR CHECKSHEETS DON'T HAVE IT, HERE'S A CHART OF STANDARD LIMITS TO GUIDE YOU.



## WEAR ALSO COUNTS

If you have any doubts that a cable is good after your broken-wire count, change the cable. A corroded cable, for example, should get the heave-ho.

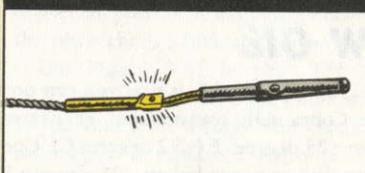
Scrap badly worn cables even tho the number of broken wires is within limits. Here're the wear limits.

Any 7 x 7 cable with 3 wires or less per inch worn not more than half way thru the wire diameter, or any 7 x 19 cable having 6 wires or less per inch worn not more than half way thru the wire diameter is OK. No broken wires are allowed in the wear spots.

One less worn wire is allowed for each broken wire in the same inch. It's OK to have more than one wear spot along the cable. But no adjacent wear spot is allowed around the circumference of the cable.

When you come across a kinked, twisted or bird-caged condition that won't straighten out under normal cable tension, change the cable.

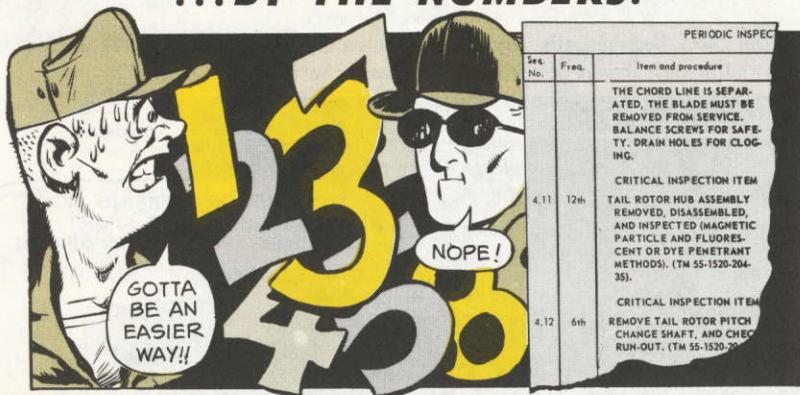
The same deal goes for a bent cable terminal. The metal has been weakened so, toss the cable!



Cables are sometimes routed thru fairleads at hard to reach places. Remove all the access covers and crane your neck. Inch-by-inch, make your check.



## ...BY THE NUMBERS!



Dear Windy,

In addition to the aircraft periodic inspection, the PMP checklist calls for other checks to be made every 2nd thru 12th time around.

How do you figure which ones are due when the aircraft is past the 12th PE?

SP4 J. O. F.

Dear Specialist J. O. F.,

Focus in on block 9 of the DA Form 2408-13 for your bird to see what number PE is coming up next.

Then, just divide all the frequency numbers on the checklist into the PE number. Only those extra checks that divide evenly into the PE number are to be done.

Say, for example, your bird had been around a spell and the PE number is 33. If numbers 2 thru 12 are in the frequency columns of the checklist the only numbers that divide evenly into 33 are "3" and "11".

So, only those checks called for every 3rd and 11th PE are pulled, in addition to the regular PE items.

*Windy*

## NEW BIRD PUB

If there's a brand-spanking-new Kiowa (OH-58A) in your future run your peepers over a copy of TM 55-1520-228-20 (Jul 69). It has all the organizational maintenance poop for the Army's newest light observation helicopter.

## USE NEW OIL

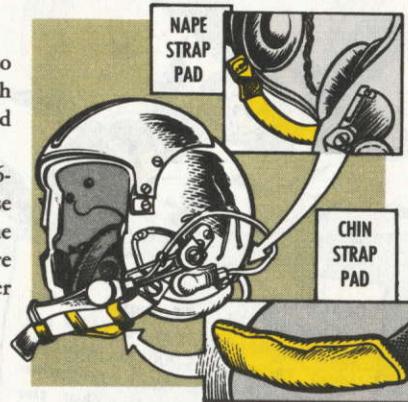
The word in message AMSAV-R-EU-6-1339 (20 Jun 69) is that you can now use MIL-L-23699 oil in the Huey and HueyCobra main transmission, gear boxes and main rotor hub when the temp's above -25 degrees F (-32 degrees C). Continue to use MIL-L-7808 oil if you're operating in temps below -25 degrees F.



## NAPE--NOPE, USE CHIN PAD

Read and heed that Ch 2 (Sep 68) to TM 10-8415-202-13 (Sep 66), which covers your APH-5, APH-5A, and AFH-1 protective flying helmets.

You use nape pad, FSN 8415-926-2300, on the nape strap, and you use chin pad, FSN 8415-753-5993, on the chin straps on all helmets. If you're using the nape pad as a chin pad, better order the chin pads pronto.



NO CHAMFER? ...

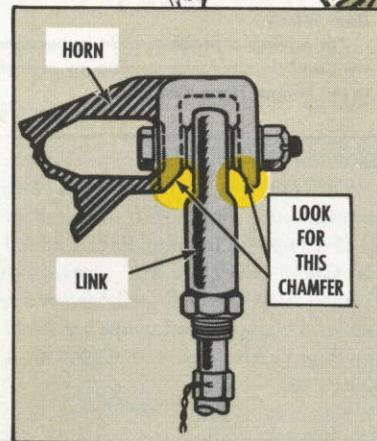
## PITCH IT



Anyone maintaining Sioux (OH-13E, G, H, S and TH-13T) helicopters without chamfered pitch change horns, better go talk with support.

Some P/N 47-120-126-1 horns got by without having the chamfer modification applied by TM 1-1H-13-533 (Oct 57). Even though this publication is rescinded, the chamfer is still required to prevent possible interference between the pitch change link and horn.

Use Figure 8-14 in your TM 55-1520-204-20 (Jun 66) for a guide. And if you find a -1 without the chamfer, ask support to replace it with a -3 or -5 horn.



## PLUG IS THE SAME



Dear Windy,

Does the O-540-9A engine use the same prime plug as the O-540-9 engine? TB 55-2925-200-25 (Feb 66) lists FSN 2925-056-7054 as the prime plug for several engines, but the O-540-9A engine is not listed.

SSG H. D. P.

Dear Sergeant H. D. P.,

The O-540-9A engine is a modification to the O-540-9, so you use the same fine wire plugs listed in the TB for both engines.

If there are massive plugs in your Raven they should come out since they're for test stand and deprestration running only.

Windy

## GROUND WIRE, CLAMP NUMBERS

Dear Windy,

I'm having a problem ordering ground wire and clamps for grounding my aircraft to the hangar floor. Clue me.

WO R. L. S.

Dear Mr. R. L. S.,

You can get 360 feet of 1/2-in braided, soft copper wire under FSN 6145-194-9840, listed on Page 1 of Fed Cat C6145-IL-A (Mar 68).

FSN 5940-260-0447 will get you a box of 5 clamps. The clamps are listed on Page 3.8 in Fed Cat C5940-IL-A (Aug 69).

Windy



## CHANGE THE GROMMETS



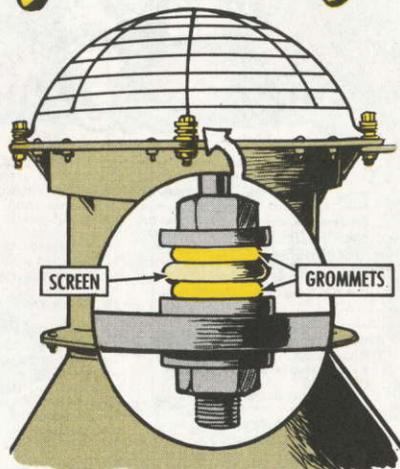
You get more bounce-to-the-ounce with new rubber.

Which is just what you want out of the rubber grommets on the Huey (UH-1D/H) oil cooler screen.

When the grommets harden, blower vibrations will not be dampened out and the screen is sure to crack at one or two of the mounting points.

So, if screen repair or replacement is getting a mite out of hand in your unit, better latch onto some new grommets, FSN 5325-263-6632.

When you put in the new grommets be sure you have the stack-up shown in the parts pub, otherwise even fresh material won't hack it.



Tighten the screen retaining bolt nut snug, plus one-half turn of the wrench. That'll stop screen cracking.

## NUTS ON THE FUEL CONTROL

Dear Windy,

A discussion has come up on the Huey T53-L-13 and T53-L-15 engines about the safety on the actuating rod on the inlet guide vane actuator to fuel control.

Do the rod bolts require a castellated nut and cotter pin or a self-locking nut?

SFC C. N. T.  
Fort Eustis, Va.



Dear Sergeant C. N. T.,

Would you believe one model gets a nut and the other one doesn't? It's true!

The T53-L-15 bolt is put through an unthreaded lever arm and is held by a castellated nut (P/N AN150432) and cotter pin.

The T53-L-13 rod is held at the fuel control end with a bolt put through a threaded lever arm and secured with a cotter pin — no nut needed.

'Course, the rods for both engines on the actuator end need a washer, self-locking nut (P/N MS21042-3) and a cotter pin to hold the bolt.

Windy



This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Jun 69), and Ch 1 (Aug 69), TM's, TB's, etc; DA Pam 310-6 (Jul 69), and Ch 1 (Oct 69), SC's and SM's; DA Pam 310-7 (Sep 69), MWO's and DA Pam 310-9 (Apr 68), COMSEC Pubs.

#### TECHNICAL MANUALS

TM 5-2410-212-20P, Aug, Tracked Tractor, Light.  
 TM 5-2410-214-20P, Jul, Tractors, Track, Med.  
 TM 5-2420-200-20P, Sep, Wheeled Tractors Med.  
 TM 5-2805-200-15, C4, Sep, Outboard Motors, 25 HP.  
 TM 5-3655-207-15, Aug, Gas Gen.  
 TM 5-3820-233-20P, Jul, Rock Drilling Equip.  
 TM 5-4110-205-15, Jul, Refrig 9,000 BTU.  
 TM 5-4110-223-15 and -25P, Jul, Refrig, 9,000 BTU.  
 TM 5-4120-300-20P, Jul, Air Cond 36,000 BTU, Skid Mid.  
 TM 5-4310-226-25P, Jul, Air Comp 4 CFM 3000 PSI.  
 TM 5-4610-222-15, Jun, Water Purif MET-PRO MOD 400C.  
 TM 5-6115-318-20P, Jul, Gen Sets, 100-KW, 60 HZ.  
 TM 5-6115-413-25P, Aug, Gen Sets: 7.5-KW DC.  
 TM 5-6125-209-25P, Jul, Motor Gen, 60 KW.  
 TM 5-6675-273-25P, Jul, Theodolite.  
 TM 9-1005-208-12, Aug, Rifle Cal .30 Auto Browning, M1918A2.  
 TM 9-1005-210-12, Jun, Carbine, M1 and M2.

TM 9-1005-212-25, Jun, Mach Guns, Cal .30, M37, M1919A4, M1919.  
 TM 9-1005-298-12, Aug, Armament Subsystem XM27E1.  
 TM 9-1005-304-12, Jul, Armament Subsystem .50 MG, XM59.  
 TM 9-1005-304-20P, Jul, Armament Subsystem .50 Mach Gun, XM59.  
 TM 9-1430-250-15P/22, Jul, Nike-Herc.  
 TM 9-1430-253-15P/2/1, May, Nike-Herc.  
 TM 9-1430-502-25P, Jun, Hawk.  
 TM 9-1440-517-25P, Jun, Hawk.  
 TM 9-2300-224-20P/3, C7, Aug, M113, M577, M106, XM474E2 Carriers and Flame Thrower M132.  
 TM 9-4935-517-15P, Jun, Hawk.  
 TM 9-7218, C11, Sep, Twin 40MM AA, SP Guns, M42, M42A1.  
 TM 10-3930-218-25P, Jul, Truck Mtd Cranes.  
 TM 10-3930-222-20P, Jul, Fork Lift Trucks.  
 TM 10-3930-607-15, Sep, Fork Lift Truck 4,000 Lb.  
 TM 11-5820-549-20P, Aug, AN/PRR-9, AN/PRT-4 Radios.  
 TM 11-5835-239-20P-1, Sep, Repro Set, Sound AN/ASH-24 OV-1A-1B-1C, CH-47A, UH-1B, UH-1D.  
 TM 11-5895-555-25P, Aug, Control, Indicator CB157/ARC for aircraft.  
 TM 11-6625-2405-15, Aug, Maint Assy Kit MK-1192/ARM.  
 TM DPSC 6515-265, Oct, Med Mat Repair Parts Pam 265.

#### ESC'S

TM 3-4230-203-ESC, C1, Jul, Decon M9.  
 TM 3-4230-209-ESC, Sep, Decon M12A1.  
 TM 5-4300-229-ESC, May, Air Comp: 100-600 CFM.

TM 5-6100-212-ESC, Sep, Gen 5 KW, 400 HZ.  
 TM 9-1015-203-ESC, May, 105-mm Howitzer M101/M101A1.  
 TM 9-1220-221-ESC, Aug, Gun Dir Computer.  
 TM 9-1400-380-ESC, Aug, Pershing.  
 TM 9-1400-500-ESC, Sep, Hawk.  
 TM 9-1425-585-ESC, Sep, Chaparral.  
 TM 9-2300-216-ESC, May, Operator M107 and M110 Artillery.  
 TM 9-2300-224-ESC, Jun, M113, M577, M106, M132.  
 TM 9-2320-224-ESC, May, M114/M114A1.  
 TM 9-2320-244-ESC, May, Trucks, M715 and 725.  
 TM 9-2350-208-ESC, Jun, Tank M48A2C.  
 TM 11-1520-228-ESC, May, Electronic Equipment, OH-58A Hel.  
 TM 11-5820-292-ESC, May, AN/PRC-8, AN/PRC-9, AN/PRC-10 Radios.  
 TM 11-5820-498-ESC/2, May, AN/VRC-53 Radios.

#### MODIFICATION WORK ORDERS

9-1400-250-50/53, Aug, Nike-Herc.  
 9-2330-272-30/1, Oct, M131A3C Semi.  
 9-4900-500-30/65, Oct, Hawk.  
 11-5840-211-30/1, Sep, Radar AN/PFS-4, AN/PFS-4A.  
 55-1500-208-20/1, Oct, OH-23.  
 55-1500-210-30/12, /24, Sep, CH-47.  
 55-1500-210-30/20, Oct, CH-47.  
 55-1520-227-30/6, Aug, CH-47 Transponder.  
 55-1680-200-20/2, Oct, All Fixed and Rotor Wing.  
 55-2840-234-20/1, Oct, CH-47.

## OE or PE for M113?

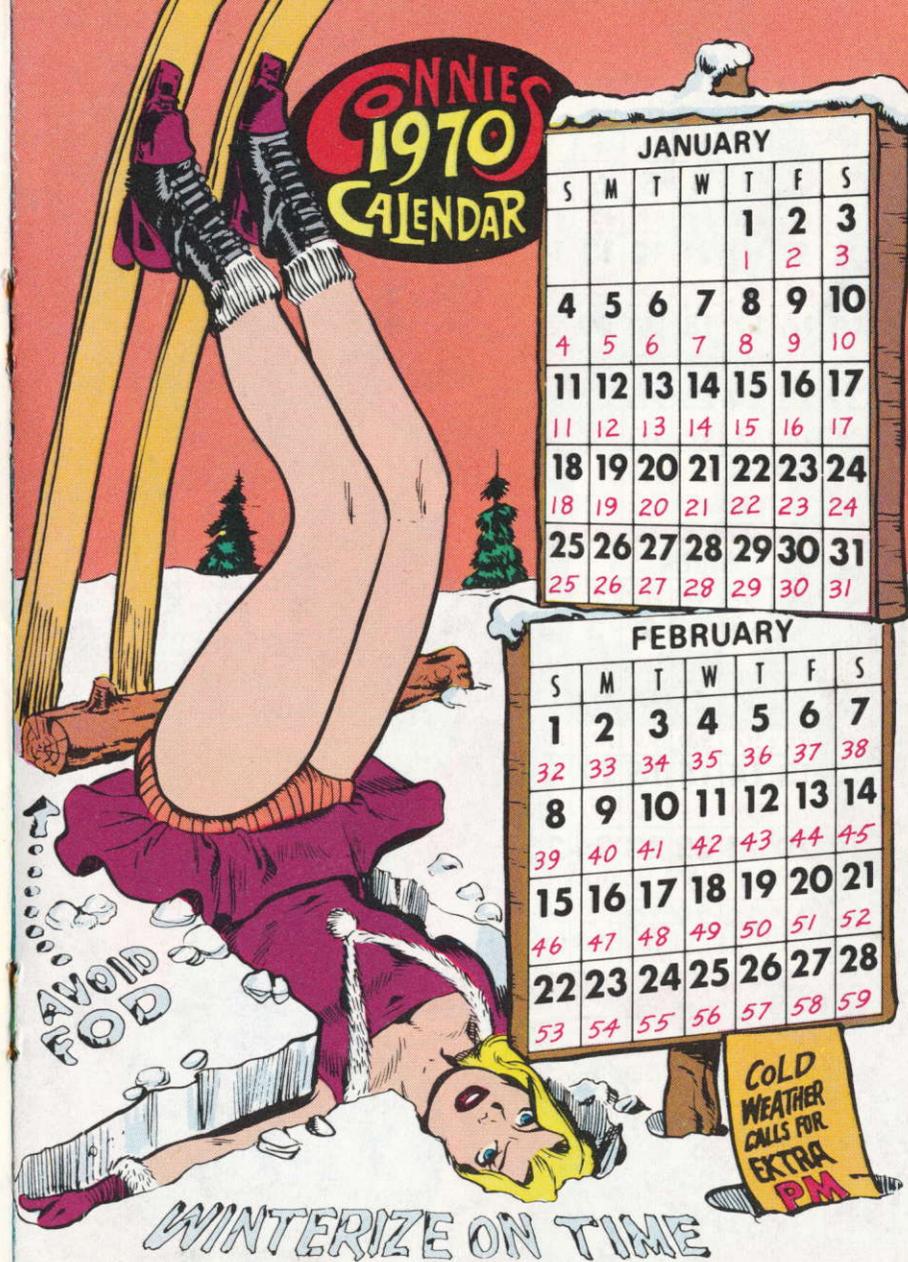
If you've got any of the M113 (gasoline engine) family of vehicles, LO 9-2300-224-12 with changes 1 and 4 could get you a little confused about what kind of oil should be in the transmission.

You should have the original PE oil until the first 2000-mile or semiannual oil change—after which you use one of the OE group of oils, (OE 10, OE 30 or OES) according to the temperature. If you need to add oil before your first oil change use OE, not PE. Change 5 to the LO should make this clear.

# CONNIE'S 1970 CALENDAR

JANUARY						
S	M	T	W	T	F	S
				1	2	3
				1	2	3
4	5	6	7	8	9	10
4	5	6	7	8	9	10
11	12	13	14	15	16	17
11	12	13	14	15	16	17
18	19	20	21	22	23	24
18	19	20	21	22	23	24
25	26	27	28	29	30	31
25	26	27	28	29	30	31

FEBRUARY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
32	33	34	35	36	37	38
8	9	10	11	12	13	14
39	40	41	42	43	44	45
15	16	17	18	19	20	21
15	16	17	18	19	20	21
46	47	48	49	50	51	52
22	23	24	25	26	27	28
22	23	24	25	26	27	28
53	54	55	56	57	58	59



WINTERIZE ON TIME

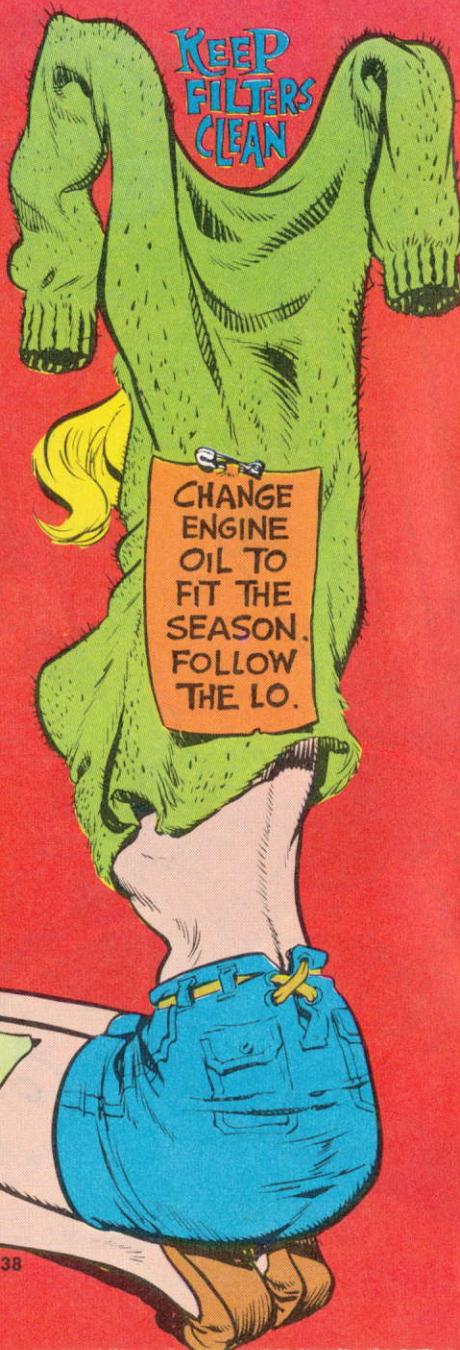
MARCH						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
60	61	62	63	64	65	66
8	9	10	11	12	13	14
67	68	69	70	71	72	73
15	16	17	18	19	20	21
74	75	76	77	78	79	80
22	23	24	25	26	27	28
81	82	83	84	85	86	87
29	30	31				
88	89	90				

APRIL						
S	M	T	W	T	F	S
			1	2	3	4
			91	92	93	94
5	6	7	8	9	10	11
95	96	97	98	99	100	101
12	13	14	15	16	17	18
102	103	104	105	106	107	108
19	20	21	22	23	24	25
109	110	111	112	113	114	115
26	27	28	29	30		
116	117	118	119	120		

TO YOUR  
EQUIPMENT  
**AIR  
FILTERS**  
ARE A MATTER OF  
**LIFE AND BREATH**

FUEL  
FILTER.  
RULE:  
DAILY  
DRAIN-  
NO  
STRAIN

38



USE RIGHT FUSE  
DON'T OVER-AMP

TAKE DRY  
CELLS OUT OF  
EQUIPMENT  
YOU WON'T  
BE USING  
FOR A DAY  
OR MORE.

MAY						
S	M	T	W	T	F	S
				1	2	
				21	22	
3	4	5	6	7	8	9
23	24	25	26	27	28	29
10	11	12	13	14	15	16
30	31	32	33	34	35	36
17	18	19	20	21	22	23
37	38	39	40	41	42	43
24	25	26	27	28	29	30
44	45	46	47	48	49	50
31						
51						

JUNE						
S	M	T	W	T	F	S
	1	2	3	4	5	6
	152	153	154	155	156	157
7	8	9	10	11	12	13
158	159	160	161	162	163	164
14	15	16	17	18	19	20
165	166	167	168	169	170	171
21	22	23	24	25	26	27
172	173	174	175	176	177	178
28	29	30				
179	180	181				

WHEN YOU GET THIRSTY-SEE IF YOUR BATTERIES ARE



JULY						
S	M	T	W	T	F	S
			1	2	3	4
			182	183	184	185
5	6	7	8	9	10	11
186	187	188	189	190	191	192
12	13	14	15	16	17	18
193	194	195	196	197	198	199
19	20	21	22	23	24	25
200	201	202	203	204	205	206
26	27	28	29	30	31	
207	208	209	210	211	212	

AUGUST						
S	M	T	W	T	F	S
						1
						213
2	3	4	5	6	7	8
214	215	216	217	218	219	220
9	10	11	12	13	14	15
221	222	223	224	225	226	227
16	17	18	19	20	21	22
228	229	230	231	232	233	234
23	24	25	26	27	28	29
235	236	237	238	239	240	241
30	31					
242	243					

IN HOT, WET WEATHER...  
KEEP STORED EQUIPMENT  
CLEAN, DRY  
AND VENTILATED



SEPTEMBER						
S	M	T	W	T	F	S
		1	2	3	4	5
		244	245	246	247	248
6	7	8	9	10	11	12
249	250	251	252	253	254	255
13	14	15	16	17	18	19
256	257	258	259	260	261	262
20	21	22	23	24	25	26
263	264	265	266	267	268	269
27	28	29	30			
270	271	272	273			

OCTOBER						
S	M	T	W	T	F	S
				1	2	3
				274	275	276
4	5	6	7	8	9	10
277	278	279	280	281	282	283
11	12	13	14	15	16	17
284	285	286	287	288	289	290
18	19	20	21	22	23	24
291	292	293	294	295	296	297
25	26	27	28	29	30	31
298	299	300	301	302	303	304





**COMMUNICATIONS**

**DRY CELL BATTERY TESTER  
NOW YOU KNOW...  
WHEN YOU GOTTA GO**



So here you are. Ten minutes till the patrol leaves, one dry cell battery to your name . . . and you're not quite sure whether it's got the juice to get the message back till you get back.

Routinely, you'd probably toss the battery and scrounge a fresh one . . . somewhere.

Chances are good you'd be tossing a serviceable battery. If everybody did that, it'd cost Uncle enough to pay for a division's R & R.

So wot to do?

So latch on to an AN/PSM-13 battery test set, a fiendishly clever and simple dry battery tester that takes about a minute, maximum, to tell you how good your battery is.

Repairmen and operators have the OK to use the tester.



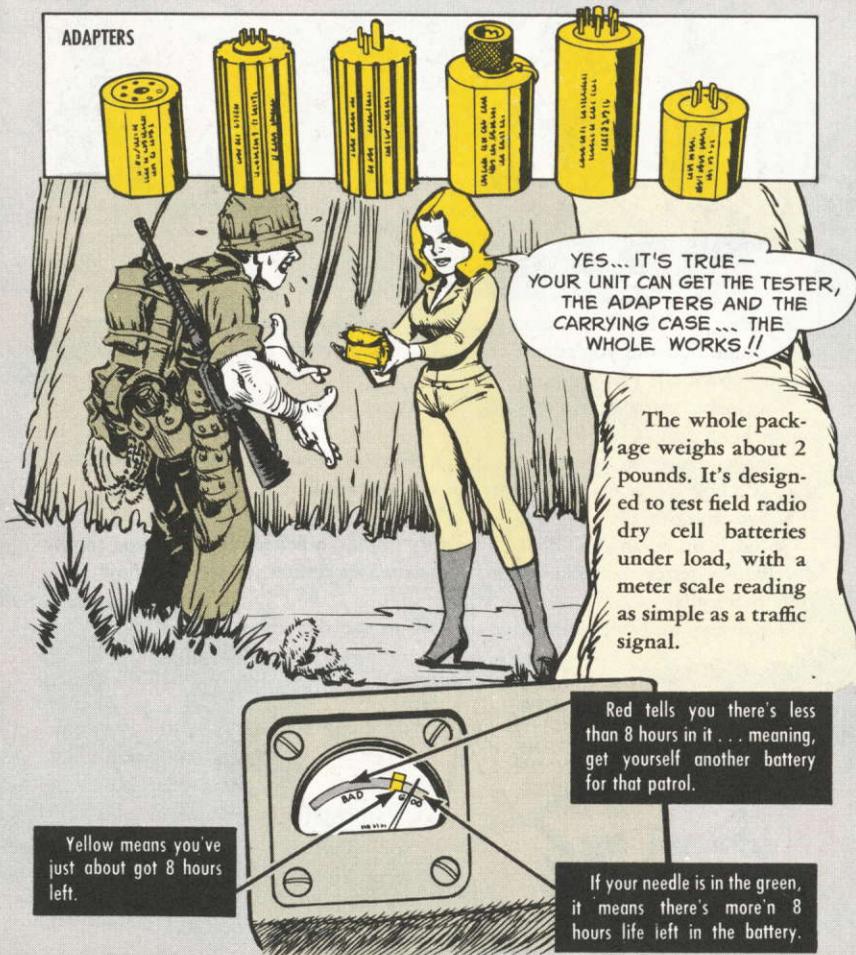
IT'S AVAILABLE RIGHT NOW! ON A ONE-TO-A COMPANY, BATTERY OR DETACHMENT BASIS!!



The PSM-13 has adapter connectors which let you test the batteries for the AN/PRC-25 series, PRC-6, -8, -9, -10 radio sets and the AN/PRC-88 squad radio (AN/PRT-4 and AN/PRR-9).

Your unit can get the tester package with FSN 6625-868-8344. There's a handy canvas carrying bag, the CW-843( )/PSM-13, FSN 6625-936-5490, which lets you carry the test set and any 2 adapters in separate compartments.

SB 11-623 (30 Jun 69) has the requisitioning details, including emergency requirements.



If you've got magnesium batteries, such as the BA-4386 for the PRC-25, use the BA-386 adapter. A green or yellow reading on the magnesium battery means you've got double the life of a similar reading for the BA-386. Same goes for the BA-4505 of the PRR-9. Use the BA-505 adapter . . . and ditto.

The adapter connectors give you readings for specific batteries . . . and for each section of compartmented batteries. Like, if you've got a 3-section battery, its specific adapter, plus the selector switch on the tester, allows you to check each section.

Naturally, you rate the battery on its worst section. If one section rates "BAD," then all are rated bad.

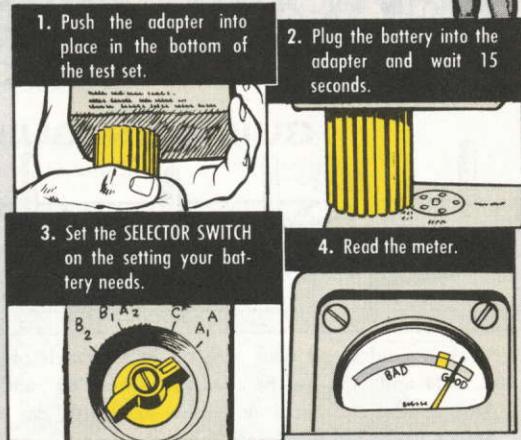
RADIO SET	BATTERY	ADAPTER	ADAPTER FSN's
PRC-25 series	BA-386/PRC-25	U-297( )/PSM-13	5935-832-4965
	BA-398/PRC-25	U-347	5935-832-4970
AN/PRT-4	BA-399/U	U-314	5935-832-4969
AN/PRR-9	BA-505/U	U-315	5935-832-4949
AN/PRC-8, -9, -10	BA-279/U	U-240	5935-832-4967
	BA-377/U	U-240	Same as above
AN/PRC-6	BA-270/U	U-241 & U-242	5935-832-4966 (for U-242)
	BA-376/U	U-241	5935-087-1148

THESE ARE THE ADAPTER CONNECTORS YOU NEED.



Operating the set is as simple as clicking a switch (SELECTOR SWITCH) and looking at the meter. The meter spells out BAD or GOOD. There are no numbered readings, etc., to worry about.

The SELECTOR SWITCH has 4 settings. Para 2-4 of TM 11-6625-823-15 (Feb 68) tells you the setting you need for your battery and also gives you the correct adapter.



Two cautions: disconnect the battery as soon as you get your reading, to prevent overheating the adapter and battery discharge. Also, the battery temperature has to be above 35 degrees F for an accurate reading.

Maintenance is simple. The operator keeps the exterior and the meter glass clean (and unbroken); checks the switch for binding or looseness, and assures that the meter pointer is not stuck or bent. There's a pin straightener (FSN 5120-935-0749) that comes with the set in case you should bend the adapter pins.

The unit repairman replaces the switch (Knob, FSN 5355-616-9659) and the adapters when necessary.

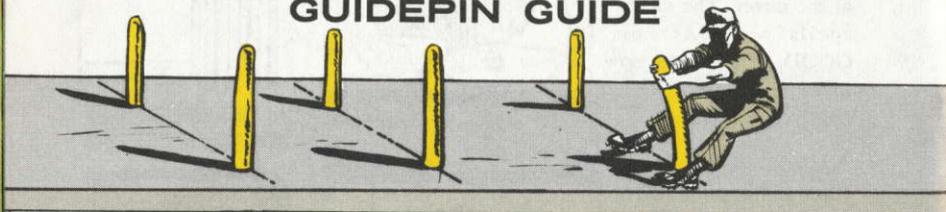
So there it is. A quick, simple test that keeps you from tossing good batteries just because you don't know how much life they've got left.



... AND READ TM 11-6625-823-15 FOR DETAILS...IT COMES WITH THE SET!!



## GUIDEPIN GUIDE



Broken guides and bent pins on PCM panels of multiplexers like the TD-202, -204 and -352 can be avoided with a "do" and a "don't."

Do line up the panel guidepins and push 'em in gently . . . by hand.

Don't bang 'em into place from the rear . . . or try to force them.

## COVER THE SITUATION



There's a new FSN for the blower vent-hole cover to be installed on your early model MT-1029 mount for the RT-524 and RT-246 receiver-transmitters.

You can request the detachable cover under FSN 5820-918-7783.

Y'see, if you're makin' messages with one of the early models of the M-1029/VRC mount, you'll need a blower vent-cover to cut down chances of damage to the blower on the RT-524 or RT-246.

That goes even more when the AN/VRC-12 radio series is installed in open-type vehicles.

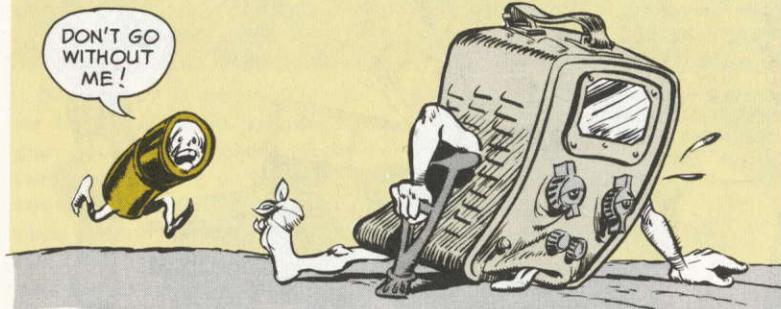
Your authority for ordering the cover is still SB 11-586 (Aug 64), which gives installation procedures.



IN LATER MODELS OF THE MT-1029 THE COVER IS PART OF THE MOUNT.

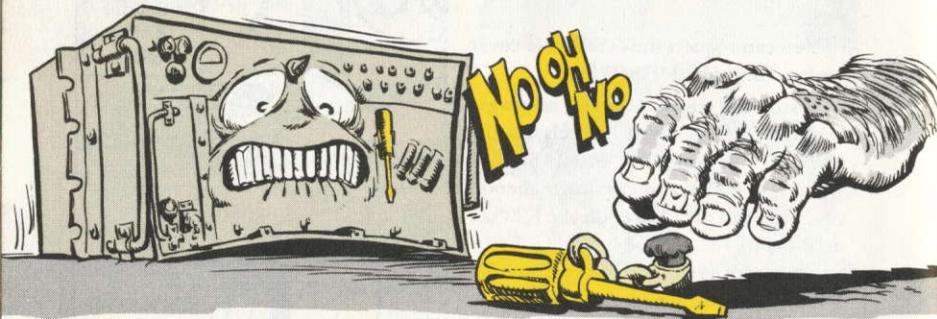


## FOLO WITH 'BOLO'



Next time you turn in your AN/URM-98 wattmeter for repair, be sure to include the MX-2144( )/U radio frequency bolometer. The bolometer is required in order to calibrate the URM-98. As a basic issue item, it goes wherever the URM-98 goes.

## RESIST THAT SCREWDRIVER



Hey, there, operator friend, the fact that the CV-1548/G telephone signal converter, multiplexers TD-202/U, -203/U, -204/U, -352/U, -353/U and a few other multi-channel communications systems items have screwdrivers handily attached doesn't mean you should merrily go about turning every channel and tuning screw in sight.

Let those panel screws alone.

The screwdriver's for maintenance types, who use it with handy test equipment like oscilloscopes and such.

Messing with 'em can put your equipment down.

'Nother thing. That test button on the 18A3A and 18A3B panels of your CV-1548 takes the light touch to do its job.

Heavy fingering can push the button clear into its shell.

## BOOT IT, BABY!



Dear Half-Mast,

Problem: we can't find an FSN for the rubber boot which protects the speaker ON-OFF switch of the AM-2060 amplifier used with AN/PRC-25-series radio sets on vehicles.

Our maintenance teams have found a number of torn and dry-rotted boots during recent inspections.

SGT A. E. G.

Dear Sergeant A. E. G.,

FSN 5975-099-5747 will get you the switch boot. It's for the S1 switch of the OA-3633 (or AM-2060, whatever you wanna call it).

*Half-Mast*

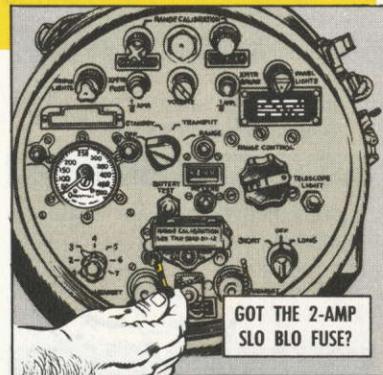
## PIPSY-4A NEEDS NEW FUSE



Hey there, man! Hold up with that 5-amp F102 power fuse you're about to put in the control panel of your AN/PPS-4A receiver-transmitter.

The -4A, which needs less power than the Pipsy-4 plain model, gets a 2-amp slo blo, FSN 5920-228-7882, to replace the 5-amp job. The lighter rated fuse gives protection to the power converter. It's still an "F102."

TB 750-911-1 (Oct 69) has the dope.





# THE TK-101/G... **T**OOL **K**IT ONCE OVER

Take heed — and hear well — you electronics equipment repair types . . . Usin' a tool kit loaded with the right tools, you can make sweet music fixin' those downtimed radar, radio, and avionics items.

That means your TK-101/G tool kit needs to measure up component-wise . . . in other words, Mac, if you need a tool, it's kinda nice to have it handy.

It never hurts to give your kit a good checkin' to see if you've got everything that's called for. So-o-o-o-

Here's a list of tools, nomenclatures, and stock numbers tied in with an illustration of each tool.

If you've got 'em all . . . fine . . . if not, better start addin'!

## TOOL KIT TK-101/G, ELECTRONIC EQUIPMENT FSN 5180-064-5178

BRUSH: paint; squirrel tail hair bristles; sq edge, 1 in wd.



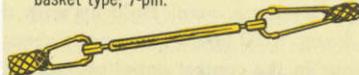
FSN 8020-245-4509

CLOTH, COTTON: cheesecloth, lintless; bleached; 36 in wd, 1 yd lg.



FSN 8305-267-3015

EXTRACTOR, ELECTRON TUBE: basket type; 7-pin.



FSN 5120-293-2696

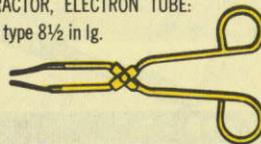
EXTRACTOR, ELECTRON TUBE: basket type; 9-pin.



FSN 5120-508-0584

# Kit

EXTRACTOR, ELECTRON TUBE:  
tong type 8½ in lg.



FSN 5120-293-0808

FLASHLIGHT: MX-991/U;  
tubular case.



FSN 6230-264-8261

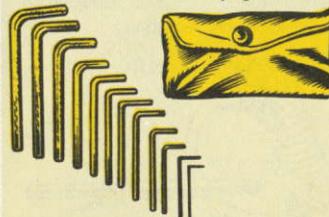
Battery BA-30 FSN 6135-120-1020  
Filter blackout FSN 6230-300-8101  
Lamp, incandescent, 2.7 volts,  
.15 amps FSN 6240-155-7935  
Lens, diffusion FSN 6230-356-4825

INSULATION TAPE, ELECTRICAL: plastic;  
black; .007 in thk x ¾ in wd



FSN 5970-284-8410

KEY SET, SOCKET-HEAD SCREW: hexagonal  
(Allen wrenches) with carrying container



FSN 5120-965-0298

KEY SET, SOCKET-HEAD SCREW,  
spline drive:



FSN 5120-585-6257

Size .060 FSN 5120-293-0195  
Size .069 FSN 5120-224-2496  
Size .076 FSN 5120-249-9670  
Size .094 FSN 5120-723-6995  
Size .110 FSN 5120-224-2482  
Size .144 FSN 5120-277-1724

KNIFE: Pocket, electrician's



FSN 5110-240-5943

MIRROR, inspection, oval, with pocketclip



FSN 5120-596-1098

PIN STRAIGHTENER, electron tube



FSN 5120-392-8361

Size .035 FSN 5120-198-5400  
Size .050 FSN 5120-198-5401  
Size ⅙ FSN 5120-198-5398  
Size ⅜ FSN 5120-224-2504  
Size ⅝ FSN 5120-242-7410  
Size ⅞ FSN 5120-889-2162  
Size 1 FSN 5120-240-5292  
Size 1¼ FSN 5120-889-2163  
Size 1½ FSN 5120-198-5392  
Size 1¾ FSN 5120-240-5300  
Size 2 FSN 5120-242-7411  
Size 2¼ FSN 5120-224-4659

PLIERS: diagonal cutting, regular nose



FSN 5110-965-0974

PLIERS: short nose



FSN 5120-293-3486

PLIERS: slip joint, straight nose



FSN 5120-223-7396

SCREWDRIVER: cross-tip; Phillips; straight; 3 in blade



FSN 5120-240-8716

SCREWDRIVER: cross-tip; Phillips; straight; 4 in blade



FSN 5120-234-8913

SCREWDRIVER, FLAT-TIP: 1½ in blade



FSN 5120-596-8502

SCREWDRIVER, FLAT-TIP: 2 in blade



FSN 5120-236-2140

SCREWDRIVER, FLAT-TIP: 4 in blade



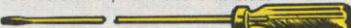
FSN 5120-222-8852

SCREWDRIVER, FLAT-TIP: 5 in blade



FSN 5120-278-1270

SCREWDRIVER, FLAT-TIP: 8 in blade



FSN 5120-278-1267

SCREWDRIVER, DOUBLE-OFFSET: 3 in long overall



FSN 5120-287-2129

SCREWDRIVER, DOUBLE-OFFSET: 5 in long overall



FSN 5120-288-9710

SCREWDRIVER, RATCHET: right and left hand turning, 2 blades



FSN 5120-892-5931

SCREWDRIVER, RATCHET: 3¾ in long overall



FSN 5120-596-0882

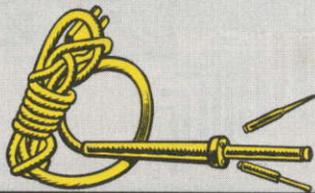


SOLDER: lead-tin alloy; 1 lb spool



FSN 3439-555-4629

SOLDERING IRON, ELECTRIC: temperature-controlled; complete assembly



FSN 3439-965-0156

SOLDERING IRON, ELECTRIC: 120 v; 60 watt



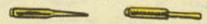
FSN 3439-866-6258

TIP, SOLDERING IRON: screwdriver shape, ¼ in size; 600 deg F temp rating



FSN 3439-898-4497

TIP, SOLDERING IRON: screwdriver shape; ¼ in size; 700 deg F rating



FSN 3439-993-2770

TOOL CHEST, utility



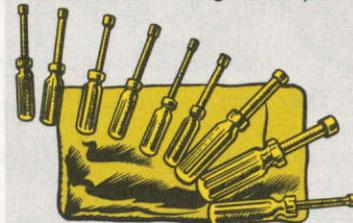
FSN 5140-678-4805

WRENCH: adjustable; open-end; single head; 6-in size



FSN 5120-264-3795

WRENCH SET, SOCKET: Single-socket spinner



FSN 5120-542-5799

Size (in)	Length (in)	FSN
3/16	6	FSN 5120-224-2599
1/8	6	FSN 5120-277-1801
1/4	6	FSN 5120-241-3188
3/16	6	FSN 5120-224-2596
11/32	6	FSN 5120-293-0796
3/8	6	FSN 5120-596-1263
7/16	7	FSN 5120-222-1499
1/2	7	FSN 5120-293-0375
3/4	7	FSN 5120-294-9514

ROLL, TOOL: Fed spec GGG-W-641 (furnished with set)

WRENCH SET, SPANNER



FSN 5120-658-9805



## Chapter 1

# Little DA Form 2765

Once upon a crazy time, like there sacked out in this lovin' supply room a groovy chick, name of Connie and her teenie boppin' DA Form 2765.

All day long she would rap with the swingers from supply and maintenance — telling about how it really is and how to do their thing —

So, one day, when it came time to send little DA Form 2765 back to support to get supplies, she gathered all the parts poppers 'round her and...

WHEN YOU SEND THIS FORM OUT ON ITS JOURNEY TO SUPPORT, MAKE SURE IT'S FILLED OUT RIGHT! FOR A CARELESSLY MADE-OUT FORM WILL DELAY RECEIPT OF YOUR REPAIR PARTS... AND FOUL UP THE WORKS.

TELL US ABOUT WHAT HAPPENS TO IT WHEN IT GETS THERE, AND WHEN IT COMES BACK!

**QUIET!**  
DA Form 2765  
CLASS  
IN SESSION

TROUBLE-SHOOTING DA FORM 2765,  
REQUEST FOR ISSUE OR TURN-IN...

## HANDLE THE FORM RIGHT

What can you do to help speed up your supply of repair parts?

Could be you can do a heck of a lot.

For a starter—how's your SOP on DA Form 2765? Do you fill the form out right? Do you read it right when it comes back to you?

The form's like money in the bank for your shop, you know. It's your buyer at supply support. And, how well it does on its shopping trips, always depends on how well it's made out.

A form with incomplete, incorrect or scribbled info (in most any block or column), will delay a request, foul up the support types, and most likely will bounce back empty handed. So, the first rule is: Accuracy across-the-board for all your repair parts requests.

For easy step-by-step guidance on making out a DA Form 2765, check Figs 4-1 and 4-2, and para 4-1, in Change 1 to AR 735-35 (Oct 65). And, right now here are some pointers to help you check your SOP on requesting repair parts.

**Be Right** — Always double-check each request before you shoot it in. Write clearly, use the right info in the right spaces, and give exact item identification (FSN, nomenclature, plus all other info you're responsible for).

You don't have a pre-printed 2765? Then be real sure all your entries are accurate.

**Pre-prints** — Handle pre-printed 2765's carefully. Keep 'em clean and fresh. And, even if you keep 'em filed with the DA Form 3318 covering the item, check to be sure you've got the right card before you start filling it out. When you receive new FSN, unit-of-issue, nomenclature, etc., info from support toss out (or correct, if possible) any pre-prints you have on file with the old info.

HEH

THAT FORM WILL NEVER MAKE IT-- THEY'LL SKEWER IT UP SURE.

HEH

**Demand Code** — The demand code (block 13) is a must. The code's a special signal for supply support tally keepers. For example, an "R" means the item is a recurring demand ... like your PLL stocks. Support knows it has to keep the items in stock for you according to your demands.

An "N" means your request covers a one-time, non-recurring demand. And, the code provides a different kind of demand info at support. Your requests for initial PLL stocks and parts for MWO's, for example, are non-recurring demands on support.

**No FSN?** — When you don't have an FSN, or supply publication reference, and you're using a manufacturer's parts manual, model number, contract number, etc., give support a good word-picture of the item. Give 'em info like on size, shape, weight, what it's made of, where it fits, what it does and identify the major item, component or assembly it's used on. If you can provide a sketch, picture or drawing of some kind so much the better.

The same applies to items listed as non-stock in your parts manuals.

Packing lists, shipping lists, equipment data plates, and component or equipment numbers or identification and manufacturer's manual are good references when you don't have parts manual info.

And, by all means check with your support for any special SOP they may have covering requests for non-FSN'd, non-stock items.

**Item Description** — Block M takes the description of the item you're ordering.

JES' ONE LITTLE GOOFED UP FSN, AN' SHE'LL BREAK OUT!!



THE ROAD BACK TO SUPPORT IS ROUGH... AND A WRONG ENTRY CAN SEND HER OFF THE PATH.



REPAIR PARTS SUPPLY



FORM NO. 1 JAN 67 USE EXTENSION OF 1 JAN 64 VERSION B	STOCK NUMBER	9071-003	STOCK NUMBER	2901 089-6912	EA	2
CONTROL NUMBER	REQ. IDENTIFIER	R	UNIT IDENT. CODE	ABC33	DESCRIPTION	HOSE, FUEL LINE
ISSUE DATE	ISSUE DATE	17	ISSUE DATE	TM9-2300-223-20P JUL 65, PG 123	ISSUE DATE	D

**IPD (Issue Priority Designator)**

For IPD's 1 through 8 you need a signature on your document register (the CO, or whoever he OK's, signs the register when a top priority code is authorized). See Appendix II in Change 1, AR 735-35, or AR 735-35-1 for complete info on priority codes and you'll have the right info for block 20. (For more scoop on IPD's see page 65).

**The UIC (Unit Identification Code)** — On a 2765 the UIC is the same as the name for your section, shop or activity. It's the only thing on the form that identifies you, as the sender. So spell it right, when you fill in block 15.

**Quantity** — Be certain. Study the unit-of-issue (or unit-of-measure) info listed on your PLL, in parts manuals or supply catalogs. A quantity goof can hold up your request and mess things up a-plenty. If it's a gosh-awful goof, for example, support will have to stop the request while they re-check to make sure you know what you're ordering. The wrong quantity info delays the shipment and feeds support the wrong demand info. Support, too, you know, stocks according to the demand it has for specific items.

**UND (Urgency of Need Designator)** — Learn the codes and use 'em right. A request for normal PLL replacement stock takes a D UND. Items for scheduled maintenance or repair or for manufacturing parts also take a D. When your PLL stocks, or on-board spares, are at zero balance you rate a B UND for your IPD. Some SOP's call for this entry — others don't.

**Publications Info** — In Block O you quote the parts manual, or catalog that lists the part. If the MAC (Maintenance Allocation Chart) says your shop's authorized to replace a part, but the part is not authorized in the parts manual, you list both the maintenance manual and the parts manual in block O. See para 4-1c in the AR's Change 1.

## Odd Type Items

If you've got any odd-type items and you have no repair parts info on 'em, alert support ahead of time. That way they can scout around for supply info before repairs are needed.

HERE ARE SOME TIPS TO KEEP YOUR SUPPLY SYSTEM WORKING.



## Follow-ups

— Memorize the follow-up routine. Check your local SOP and para 4-8, in the AR's Change 1.

## Re-ordering...

— Never re-order an item as long as your original request is open. Your request is open until you or support cancel it — and you've received a cancellation status card from support.

## Suspense Files

Keep 'em neat and orderly so you can easily check requests that are due a follow-up query. Good suspense files also help you give support a complete report on your due-in requests when they ask you for a reconciliation report.

CLACK CLACK CLACK CLACK

... Watch yourself

OH-- HALP!



## Canceling

And, here's a word of caution on canceling. As long as you need an item it's best not to cancel your request. Here's why:

You can be sure that others are on the waiting list, too. Your place on a priority group waiting list is usually the date of your original request. If you cancel, you're struck off the list. Then when your new request goes in for the item, you'll normally be placed at the bottom of the waiting list. Para 4-8, in the AR's Change 1, also clues you on canceling requests.

Remember, a request isn't canceled until you get a "Roger" status card from whoever owes you the due-out.

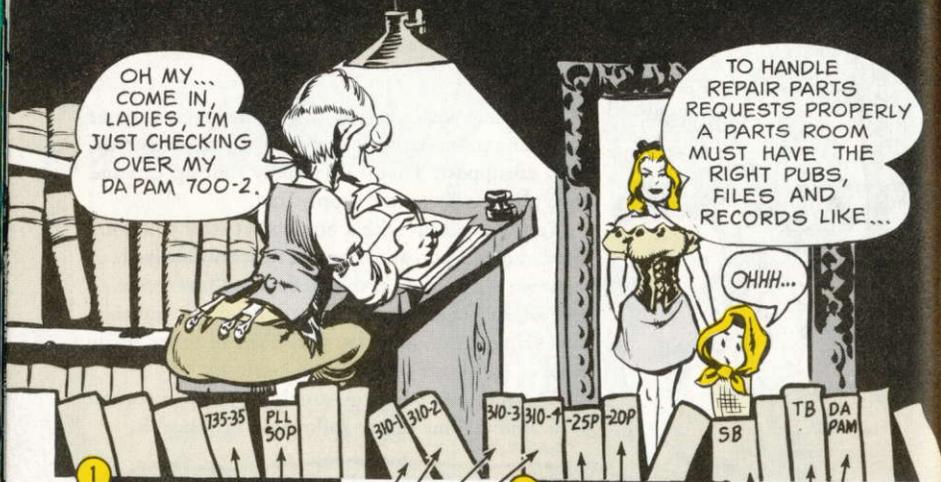
It shouldn't take long to get a cancellation squared away when your request is due out at your immediate support outfit. But, when support converts your request to a MILSTRIP requisition (AR 725-50), your request to cancel has to reach the depot and the status card, confirming your request to cancel, starts out from depot . . . so, the exercise takes a bit longer.

YOUR REPAIR PARTS OPERATION

LET ME SHOW YOU A PROPER REPAIR PARTS ROOM.

OH





1 — A current AR 735-35 and a copy of the local PLL SOP.

2 — Parts manuals, supply catalogs, manufacturer's parts lists, etc., for all equipment supported.

3 — Current publications indexes. DA Pam 310-1, for AR's and other administrative type publications. DA Pam 310-2, which indexes blank forms. DA Pam 310-4, which lists TM's, TM-P's, SB's, TB's and other technical pubs. DA Pam 310-6, for looking up the supply catalogs needed.

4 — SB's, TB's and other related supply pubs which apply to specific pieces of supported equipment, or which provide general or special supply scoop.  
Like, for example, DA Pam 700-2, Commanders' Supply and Maintenance Handbook. And, you should know about SB 700-20, Adopted Items of Materiel and SB 700-50 expendable items.

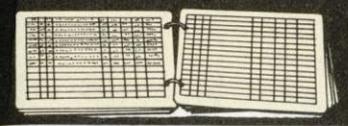
REMEMBER, FILE YOUR PREPRINTS CAREFULLY WITH THE 3318'S CONCERNED.

5 — Good record of demands (DA Form 3318) file. You need 1 card for each item on your PLL, and a card for each fringe item you request. Fringe item cards are filed apart from the PLL cards, until the fringe item qualifies (3 separate requests anytime within 180 days), for the PLL.

DA Form 2765

DA Form 3318

6 — An orderly document register (DA Form 2064).



7 — A current DX (Direct Exchange) list, which is provided by the DX section that supports you. And, a SALT and a country store shopping list, which are provided by your supply support operation.

8 — Orderly suspense files. You need 2 files. One for due-in cards from your immediate support, and 1 for due-in's on requests that've been converted to MILSTRIP requisitions. The first file you keep by your own document number, the other by support's requisition number.



PSST... HEY SWEET THING, DIG THIS GROOVY NEW MAP TO GRANNY'S PAD! AND OTHER HOLLYWOOD STARS!



9 — Support contact. Names and telephone numbers at support, so you can reach the right ear, when you have a beef, a problem — or otherwise need help with repair parts info.

Support activities now have extra, special help which gives them up-dated info regularly. A special DA system (The Army Master Data File) gives them up-dated info on every FSN'd item in the supply system. All FSN's, you might say, now get a health check regularly and support receives the latest reports.

All support has to do is run some microfilm tapes or some know-it-all card decks, and in a flash they have the goods on any FSN in the Master File.

The SOP on contacts or liaison work with support is usually set up through your S4 or unit supply office.



IF ALL ELSE FAILS, YOU'VE GOT  
**PUB POWER**



To make the scene, of course, you have to love your constant companions — your repair parts manuals, supply catalogs and whatever other parts lists you keep.

The listings cost a lot of dough . . . and, they have only one reason for existing — to help you keep your outfit's gear combat ready. So get real close to 'em . . . make 'em work for you.

First and foremost, read, study, check and re-check a manual's **introduction** section. Box, or line in red, or whatever color pleases you, any section or instructions, that are of special interest or importance to you.

Learn a manual's format so you can handle it in the dark . . . it'll help you find parts info and illustrations fast.

Memorize the SMR (Source — Maintenance — Recoverability) codes, so you'll be up on who's authorized what, from where and how.

And, if you find wrong info, incomplete info or any kind of mistake in a manual, don't hesitate to fire in a DA Form 2028, Recommended Changes to Publications, to alert the outfit responsible for the manual.

a. Source, Maintenance and Recoverability Codes (SMR), (Colm 1).

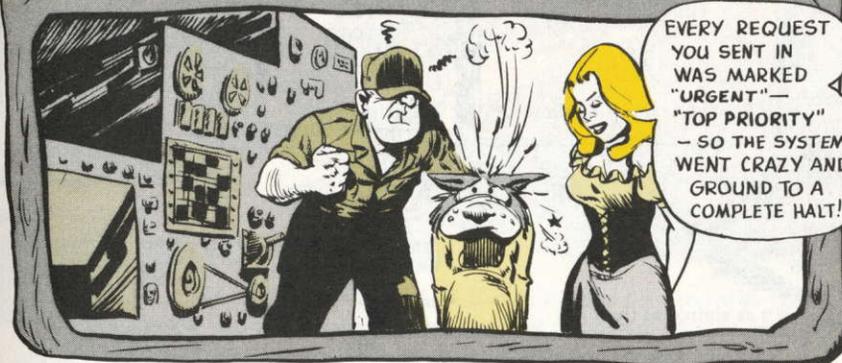
(1) Source code indicates the selection status and source for the listed item. Source codes are—

Code	Explanation
P . . .	Applied to repair parts which are stocked in or supplied from the GSA/DSEA, or Army supply system, and authorized for use at indicated maintenance categories.

SO MUCH FOR THIS PHASE OF THE ADVENTURES OF THE WILY WOLF... NOW LET'S TAKE A LOOK AT THE NEXT CHAPTER IN OUR **TALE OF THE LITTLE** DA FORM 2765...

Chapter 2

**HOW URGENT IS YOUR NEED?**



EVERY REQUEST YOU SENT IN WAS MARKED "URGENT"— "TOP PRIORITY"— SO THE SYSTEM WENT CRAZY AND GROUND TO A COMPLETE HALT!

How urgent is your need?

Only you can tell. And, it's to your advantage to tell it right . . . every time.

Here's why:

The Army supply system is geared to support you and everyone else on an issue **priority basis**. That means the best support possible for everyone concerned. But, it also means **top priority** support for specific items needed to keep essential equipment ready to shoot, scoot and communicate—or, pull its combat-essential job . . . whatever it happens to be.

Equipment and items of equipment that won't directly affect an outfit's combat readiness, of course, rate a lower issue priority. That's where you really have to play the game right . . . otherwise you'll cause all kinds of grief for yourself and create gruesome bottleneck problems in the supply system.

In a nutshell — supply support **must go all out** when you send in a top priority request. They drop everything and work around the clock to find what's needed, and ship it soonest . . . by the fastest means available. That means by high priority jet plane for many items.

That's no sweat. The system's set up to respond that way to urgent needs.

But, when you (and too many other supply types), accidentally or unknowingly demand top priority service on everything you order, support's issue priority operation gets flooded, over-loaded and bogged down. Eventually, your entire supply support system is crippled and slows up as it tries to catch up and dig out from under. That means all requests are delayed and nobody gets what he needs when he needs it.



HERE'S A QUICK SCAN AT UND'S AND A SAMPLING OF THE NEEDS THEY COVER.

**A**

AN "A" UND MEANS YOUR OUTFIT POSITIVELY CAN'T PULL ITS COMBAT MISSION WITHOUT THE ITEM.

1. Items needed for immediate use on primary weapons or equipment. Unit must have weapons or equipment to pull its assigned mission.
2. Items needed for immediate use on support equipment that's essential to the operation of primary weapons and equipment.



**B**

A "B" UND SAYS YOU'RE NOT DESPERATE YET, BUT YOUR OUTFIT'S SWEATING A LOT WITHOUT THE PART.

1. Items needed for immediate use. Lack of items hurts unit's operating capability. (Outfit can operate only temporarily as an effective unit. Or, assigned operational mission and tasks can be done only at reduced effectiveness.)
2. Items needed for emergency repairs on auxiliary equipment that's essential to unit's mission.
3. Items needed for immediate use on primary weapons and equipment. Loss of equipment's use reduces effective accomplishment of assigned mission or tasks.
4. Items needed for replacement of PLL stocks or on-board spares which are at zero balance.



**C**

A "C" COVERS ITEMS FOR A SPECIFIC NEED, OR FOR USE AS SOON'S THEY ARRIVE.

1. Items needed for immediate repairs on administrative support equipment and equipment that's not essential to unit's operational mission.
2. Items needed for initial PLL stocks or on-board spares.
3. Items needed to prevent work stoppage or delay of scheduled maintenance on weapons or major equipment.



**D**

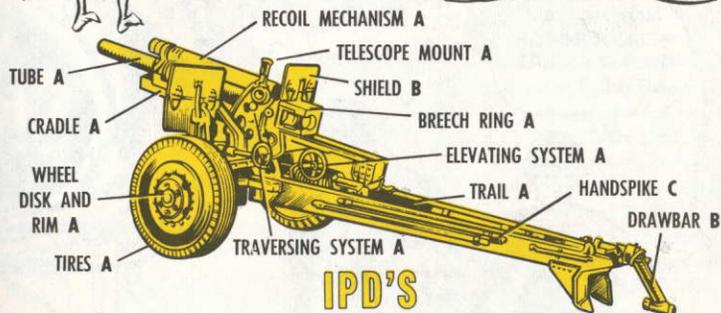
A "D" UND... NO SWEAT INVOLVED.

1. Items needed for routine storage of PLL stocks.
2. Items needed for scheduled maintenance or fabrication of supply stocks.

SEE AR 735-35 FOR COMPLETE DETAILS

SOME SUPPLY SOP'S ASK YOU TO RECORD YOUR UND IN BLOCK "P" OF YOUR DA FORM 2765'S - OTHERS DON'T.

HERE'S A F'INSTANCE ON HOW IT MIGHT WORK ON A COMBAT ESSENTIAL WEAPON.



IPD's run from 1 through 20. And each F/AD is authorized a specific combination of UND's and IPD's. They square off like this:

F/AD:	UND'S AND IPD'S				← UND'S
	A	B	C	D	
I	1	4	11	16	← IPD'S
II	2	5	12	17	
III	3	6	13	18	
IV	7	9	14	19	
V	8	10	15	20	

FROM THE UND YOU SELECT YOU READ DOWN TO YOUR F/AD. THE BLOCK WHERE YOUR F/AD AND YOUR UND MEET GIVES YOU YOUR CORRECT IPD.



**AUTHENTICATION**

The top priority IPD's (1 through 8), of course, need your CO's signature . . . or, the signature of whoever he's assigned (on orders) to OK top priority IPD's for him. See para 2-1d, Ch 1, AR 735-35. The signature goes in block d of your document register (DA Form 2064), before you shoot off the request.

Exceptions: An IPD of 3 is used by everyone (regardless of F/AD) for medical or disaster supplies or equipment needed to save life or prevent suffering.

An IPD of 6 is used by all units (regardless of F/AD) for individual clothing when an individual on active duty is minus the required clothing.

Your support outfit may use other exceptions for special items or issue transactions.

## Chapter 3



BOY, MUSTA BEEN A ROUGH TRIP FOR THAT LITTLE TYKE...

WHAT ARE YOU TRYIN' TO SAY, KID, HUH?

PUFF

PUFF

PUFF

YOUR Status ARE SUPPLY Cards TALKING

1. A typical status card may look like the same DA Form 2765 (Request for Issue or Turn-In) you used to ask for this item.

AFTER A TRIP TO SUPPORT YOUR DA FORM 2765 HAS A STORY TO TELL YOU... HERE'S HOW TO READ IT.

2. Or it may be sent directly from the supply source for that item on a DD Form 1348m (DOD Single Line Item Requisition System Document (Mechanical)). This happens when your own DSU (Direct Support Unit) has to pass or refer your request to a higher supply level for a complete fill.

3. Or your own local SOP might require your support to use the General Purpose card.

There's no such thing as a lifeless status card. But there are using unit supply men who have trouble breathing life into the supply codes they carry. And it's a shame—because every one of these cards zing with snappy supply dialogue for you. And sometimes they expect answers, too.

That's where you come in! With a trusty copy of AR 735-35 (Oct 65) open on your desk, you're ready to meet any status card that comes along. The part of the card you talk back to are the columns which carry the Advice and Status codes listed in Appendix I of this AR. Just be sure you have the Changes 1, 2 and 3 revisions, too.

Any one of these codes may be punched into card columns 65-66 of the typical status card, which also carries the same message in printed form somewhere on that card.

No matter what it looks like, each status card carries a recent supply decision which updates or revises a piece of information concerning your supply request.



## TWO KINDS OF STATUS

Each status card you receive brings you either:

### SUPPLY STATUS

What's happened up to now on your request. Sometimes it answers your request for follow-up or cancellation information.

..... OR .....

### SHIPMENT STATUS

How, when and what quantity will be shipped.

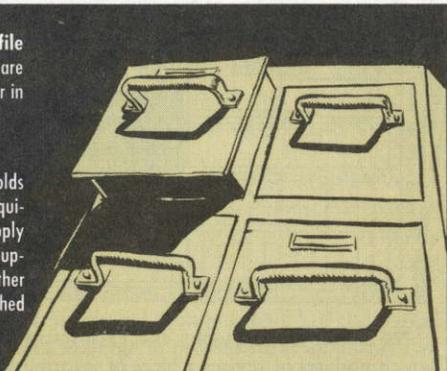
Both types of status can include other information from time to time: such as changes in stock number, unit of issue or quantity, partial due-in, rejects, cancellation verifications, etc.

## TWO DUE-IN SUSPENSE FILES

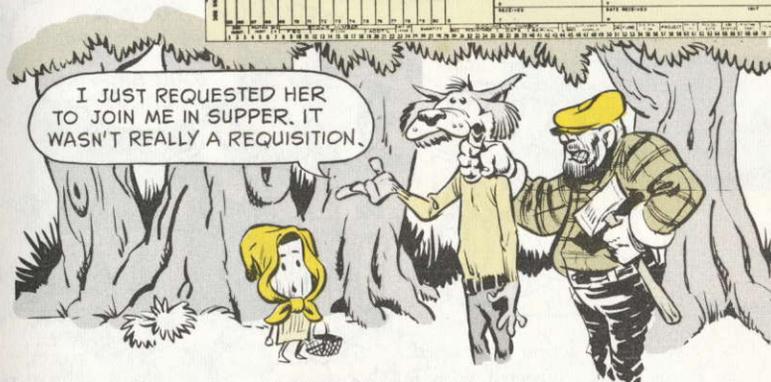
You keep these status cards in two different suspense files under two separate numbering systems.

Your temporary due-in suspense file contains due-in cards from your DS and are filed by the organization document number in Block C1 of your DA Form 2765 request.

Your regular due-in suspense file holds status cards which DS has converted into requisitions that are forwarded to a higher supply source. These cards are filed according to support's requisition number. This number either appears manually in Blocks 9-12 or is punched and printed into card columns 30-43.



REQUISITION NUMBER IS EITHER ENTERED MANUALLY (BLOCKS 9-12) OR MACHINE PUNCHED (CARD COLUMNS 30-43)



## FROM REQUEST TO REQUISITION

When your initial request has to be converted into a requisition, support sends you a new status card with this requisition number on it. You transfer this due-in to your regular suspense file by noting your organization document number on the new card and throwing away the card in your temporary due-in file.

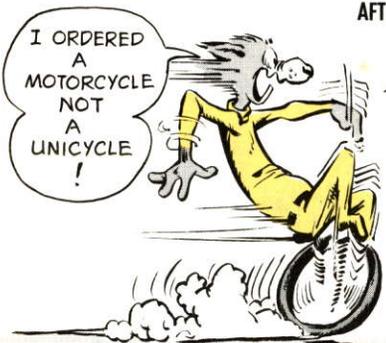
All future status cards on this due-in will also carry this requisition number. That's why you must add this number to the original entry on your DA Form 2064 (Document Register for Supply Actions).

DOCUMENT REGISTER FOR SUPPLY ACTIONS (AR 735-35)			
PRIORITY AND DATE	DOCUMENT SERIAL NO.	CONTROL NUMBER	ORG
17/9116	001	9160-0160	253
17/9116	002		66
17/9116	003		

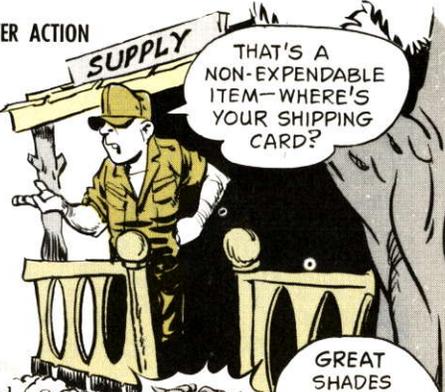
CHANGE THE REQUEST NUMBER TO REQUISITION NUMBER

If the first request/requisition for this item is rejected, your DS may try to reorder with a new requisition number. That means a new status card comes to you with the new requisition number in Blocks 9-12 and the old requisition number in card columns 30-43.

You change the requisition number on your Document Register, add your original organization document number to the new status card and fasten the new card to the front of any other cards you have on this request in your due-in file.



AFTER ACTION



Once this supply action is finished, all the status cards connected with it can be thrown away. However, you must record the completed action on the Document Register and the DA Form 3318 (Record of Demands-Title Insert) for this item. Occasionally you must record changes to the Title Insert portion of this form and your unit PLL.

Shipping cards that identify non-expendable property book items are never thrown away. They must be placed in the permanent type document file which you use to back up your property book entries.



GRANNYSVILLE

HUM HUM HUM

DOCUMENT IDENTIFIER CODES

Always place the latest status card received in front of all others filed on the same request, since you must use this card whenever you start a Followup or Cancellation request. If you do not have a recent status card in the file, use a fresh DA Form 2765.

PARA 4-8, AR 735-35 SAYS USE THESE DOCUMENT IDENTIFIER CODES

**ACI** = CANCELLATION — (CANCEL DUE-IN)

**AFI** = FOLLOW-UP — (DELIVERY DATES PASSED WITHOUT FURTHER STATUS OR SHIPMENT)

**API** = RECONCILIATION RESPONSE — (NOT ON RECONCILIATION REQUEST LIST, BUT STILL NEED IT !)



WHEN TO FOLLOW-UP

The Issue Priority Designator you place in Block 20 of your DA Form 2765 request determines how soon you take followup action. So if you can possibly get by with a lower priority (09-20), you won't need to make followups as often.

SUPPORT ANSWERS BACK

Support attempts to meet your demand within this time schedule or sends you a status card with a later delivery date manually entered in Block 21 and the due-in quantity in Block S . . . or with the same information machine punched and printed into columns 25-29 and 62-64, respectively.



DOCUMENT IDENTIFIER CODE	MEANS
AAI = Supply Status — reply to followup	Answer to your followup request.
AEI = Automatic Supply Status	Latest status sent without request for followup.
AGI = Reply to cancellation request	Verifies your request, permitting you to close out Register and files.
ARI = Shipment Status — reply to followup	Answers followup request with shipping date and method of delivery.
ASI = Shipment Status (automatic)	Latest shipping info sent without request for followup.
AUI = Reply to cancellation request — with Shipment Status	Request too late to cancel shipment.

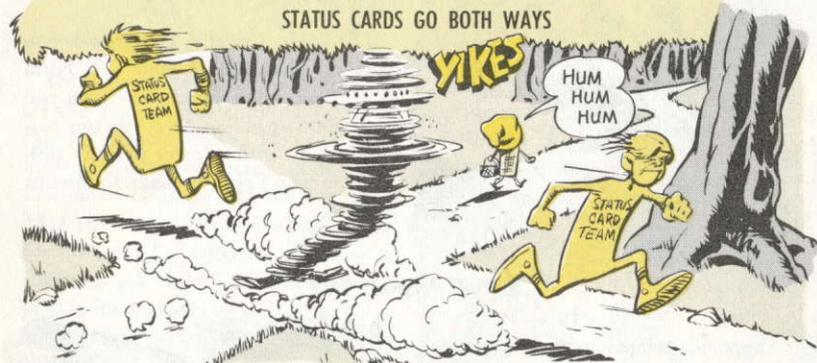
THE PURPOSE OF THIS STATUS CARD WILL BE IDENTIFIED BY ONE OF THESE DOCUMENT IDENTIFIER CODES...



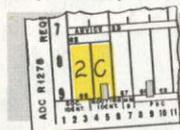
... AND HERE'S HOW IT READS ON THE CARD.

ASIS90329106518550					
DOC. DENT.	ROU. IDEN	M. S.	FSC	FIIN	ADD'L
			STOCK NUMBER		
DOCUMENT IDENTIFIER	ROUTING IDENTIFIER	M. S.	FSC	FIIN	
			STOCK N		
0					
EDITING					

### STATUS CARDS GO BOTH WAYS



Every status card carries a two-way message channel in card columns 65 and 66. Status codes transmit decisions made by the supply source for that item down to you and your DS. Advice codes follow the same path in the opposite direction.



Advice codes should be limited to the occasions when they are really needed, such as telling your DS what restrictions should be considered in filling your request. Here are the most commonly used.

Advice Code	Why You Use It
2 A Could not manufacture fabricate or buy locally.	No local dealer, boneyard's bare, support shop doesn't have capability.
2 B Can't accept substitute.	Ex: Thin wall wrenches for aircraft use.
2 C Fill or Kill. Don't want due-in on any part of order.	Immediate need. Due-in quantities would be too late to meet field exercise or deadline requirements.
2 F Know item's "obsolete" but still needed for immediate use.	Required to support equipment on hand.
2 J Fill or Kill. Can't accept substitute or back order.	Similar to 2C — but substitution not acceptable.
2 L Resubmitting confirmed quantity requirement.	Verifies previous request rejected by status code CS = wrong or excessive quantity.

Each status code carries a supply decision which affects the status of your request . . . and may ask you to take some action in return. Here are the actions required by you at the using unit level on the most commonly used codes.



AND HERE'S YOUR STATUS CODE ACTION.

Status Code	Your Action
B A Item being processed for release and shipment.	Place card in suspense file.
B B Item back ordered. Estimated release date in columns 62-64.	Enter new date on Document Register. File card in suspense. Send followup according to local SOP if date passes without shipment or further status report.
B C Item back ordered. Long delay. If acceptable, cancel and order substitute instead.	Cancel request. Post action to records and order substitute item. If substitute won't do, file card in suspense and wait for issue on original request.
B D Item delayed. Estimated release date in columns 62-64.	Enter new date on Document Register. File card in suspense. Followup if date passes without shipment or further status.
B G Stock number changed or newly assigned. Also check unit of issue and quantity for possible changes. Adjust records.	Change Document Register, Record of Demands, Title Insert and PLL as necessary. File card in suspense.

**BH** Substitute item supplied. See stock or part number entry. Also check unit of issue or quantity for possible changes. Adjust records.

Same action as BG.



**BJ** Unit of issue and/or quantity changed. Adjust records.

Same action as BG and BH.



**BK** Addressed wrong. Request rerouted. Forward future followups to activity indicated in columns 67-69.

File in suspense. Followup to support after prescribed time frame.



**BL** Followup forwarded to activity in columns 67-69, who will furnish status. Send future followups to last known source.

Same action as BK.



**BM** Request referred to activity in columns 67-69.

Same action as BK and BL.

**BN** Request processed as free issue. Signal and fund codes corrected. Adjust local fund obligation records.

Adjust financial control records if you have them. Otherwise, throw out card.

**BQ** Canceled. Answers cancellation request from you or some other activity.

Verifies cancellation request. Cancel Document Register and Record of Demands entries. Throw out suspense file card(s).

All "C" codes mean rejected. Second letter in code gives the reason.

**CB** Initial request said reject quantity not available for immediate release. Unfilled quantity indicated. (Often used to answer advice codes 2C and 2J.)

Only used if you told support not to back order for complete fill. Change Document Register and Record of Demands entries. Throw out status card.

**CG** Unable to identify. Resubmit with correct FSN, end item application or part number (including publication or drawing reference).

Cancel Document Register and Record of Demands entries. Reorder according to instructions.

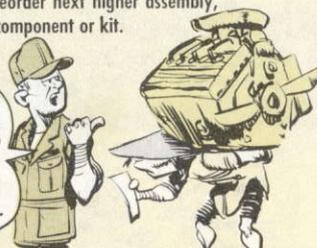
**CJ** Coded "obsolete" in latest publications. Not for issue. If still needed, reorder with advice code 2F and give technical data (end item use, component, make, model, series, serial number, drawing, piece and/or part number, manual reference and applicable publication).

Same action as CG.

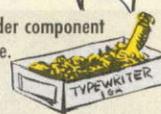


**CK** Not available. Ask for local issue or reorder next higher assembly, component or kit.

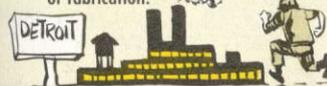
I ONLY NEEDED THE HEAD GASKET.



**CL** Not available. Order component parts if practicable.



**CN** Source of supply is local manufacture or fabrication.



**CS** Quantity rejected as either excessive or wrong, and indicated on card. Partial quantity being supplied. If still need remaining quantity, submit new request with advice code 2L.

**CT** Submit new request with enough information to identify; such as make, model, series, serial number and/or end item use or publication reference.

**CU** Part of repair kit. Order kit.

If you're authorized the higher assembly, and support can provide it from their own stocks, they may issue it on your original request... or they may cancel your request and ask you to reorder.

If support reorders, use their new requisition number to change your records and suspense file card.

If support cancels, enter this on your records, throw out suspense card(s). Reorder if you're authorized the next higher assembly, component or kit.

Cancel Document Register and Record of Demand entries. Reorder according to instructions if you're authorized, and can use, component parts.

Support provides new number if it takes action to local purchase or fabricate. If support cancels your order, cancel your entries and throw out suspense card(s). Reorder if still need, with advice code 2A.

Cancel remainder of order on Register and Record of Demands. Throw out suspense card. If reorder, use advice code 2L.

Cancel Register and Record of Demand entries. Throw out suspense card(s). Reorder with additional information.

Cancel Register and Record of Demands entries. Throw out suspense card(s). If authorized, reorder kit.

### DO YOUR OWN LIST

Some theaters and local supply channels may have slightly different status code listings which implement and modify those used in AR 735-35. It's your responsibility to be sure you know all the codes that apply to using units. After all, you're the one who really needs the item—the supply activities who support you are just trying to help.

### KEEP IN TOUCH

You can also save a lot of time by staying in close contact with your immediate support activity... passing information back and forth each time either one requests or receives status. This cuts down on useless followup requests for the same item.

The code of cooperation is just as important as the codes on your status cards.

# PLL = 3 DEMAND TRANSACTIONS

Dear Half-Mast,

If I order 3 of the same oil filter—and it has never been a fringe item or on my PLL before—can I pick up this item on my PLL now? Is a demand based on the QUANTITY requested... or the NUMBER of transactions involving the same item?

CWO F. H.

Dear Mr. F. H.,

It's how many times (the number of transactions) you order this same FSN that determines if it becomes a PLL item... and that's 3 times in 180 days.

Whether you request a quantity of 1 or 50 on that DA Form 2765 makes no difference. One DA Form 2765 = one demand.



IF REQUESTED  
3 TIMES WITHIN  
180 DAYS...



DA FORM 3318 1 MAR 62		RECORD			
REPLACES DA FORM 1543, 1 MAY 62 AND DA FORM 2527, 1 MAR 62, WHICH ARE OBSOLETE.					
RECORD OF DEMANDS					
ORGANIZATION DOCUMENT NUMBER	QUANTITY DEMANDED	CUMULATIVE QUANTITY DEMANDED	BALANCE ON HAND	ORIG. DOC. NO.	
a	b	c	d	e	f
9122-009	3	3	0		
9146-011	4	7	0		
9218-002	2	9	0		

NOW IT'S A PLL ITEM

And then there's the exception to the PLL rule. AR 735-35 (Oct 65) allows a major commander to change the usual PLL policy in para 6-6e, page 6-5, of Change 2 (Nov 68). In other words, he can authorize your oil filter as a "right now" PLL item if he anticipates a continuing demand for this filter due to certain conditions within his command.

DA FORM 3318 1 MAR 62		RECORD			
REPLACES DA FORM 1543, 1 MAY 62 AND DA FORM 2527, 1 MAR 62, WHICH ARE OBSOLETE.					
RECORD OF DEMANDS					
ORGANIZATION DOCUMENT NUMBER	QUANTITY DEMANDED	CUMULATIVE QUANTITY DEMANDED	BALANCE ON HAND	ORIG. DOC. NO.	
a	b	c	d	e	f
9122-009	3	3	0		
(PLL authority - Letter AVCG - P.X.1, 4 April 1969)					

repair parts... there is no further end item application... unit/organization.

e. *Exceptions.* Exceptions to addition and deletion policies enumerated in a and d (1) above may be made by the major commander based upon known or foreseeable changes. The object of this latitude is to permit commanders to adapt to changes in equipment configurations, density, geographical and tactical conditions.

★6-7. Missile System Stockage List (MSSL). a Missile system stockage list for support of selected units will be developed.

AR 735-35

Half-Mast



## L for "Other"

"Other feedback forms" for COMSEC equipment go to L—not X—as listed in Appendix II of TM 38-750. The word went out in DA Msg 889084 (Dec 68). So, send unclassified feedback copies of DA 2406, DA 2407 (except EIR) and DA 2408-7 and -8 to your Data Center. They'll punchcard 'em along to L.

## Correct OHT Numbers

You can get the OHT you need for your M60/M60A1 tank hydraulic equipment by ordering it as FSN 9150-935-9807 for 1 qt; 9150-935-9808 for 1 gal; or 9150-935-9809 for 5 gal, and 9150-935-9810 for 55 gal. The 7 FSN's listed on page B-13 of Ch 7 (Aug 69) to TM 9-2350-215-10 (Feb 65) are for OHC, not for OHT. OHT can be added or used whenever OHC is specified, but don't use OHC when OHT is called for.

## Prevent Slips

Webbing retarder springs on aircraft troop seat belts and shoulder harnesses will keep them from slipping out of adjustment. MWO 55-1680-200-20/2 (8 Oct 69) tells you how to get 'em in your bird's shoulder harness. MWO 55-1680-200-20/1 (7 June 65) put 'em on seat belts.

## New Switch

Your tanker types will get off to a better start with a new snap-action starter switch for your M48A3, M60 and M60A1 tanks, the M728 CEV, the M60A1 AVLB and the M103A2 tank. Ask for switch, starter, FSN 2920-930-6203. It replaces the old switch, FSN 2920-781-1953.

## No More M-S-F-A-R

That means "Maximum Safe Fuel Acceptance Rate." You don't put it on your vehicle anymore. You don't have to remove the M-S-F-A-R already painted on your vehicle—unless your CO says so. The word went out worldwide to all commands in US Army Tank-Automotive Command letter dated 19 May 69, subject: "Marking Requirement for Maximum Safe Fuel Acceptance Rates, TB 746-93-1."

## Cracked Cover?

You could have a cracked transfer case gear cover on your 2½-ton truck. Some have cropped up on G742-series 2½-ton trucks made before December 1968 under Contract No. DAAE06-68-C-0007. Check yours out. If you find the cover cracked, flash your support unit soonest and fill out and mail an EIR (DA Form 2407).

Would You Stake Your Life <sup>right now</sup> on the Condition of Your Equipment?

**HIGH**

**PRESSURE**

**FORCE WATER INTO PLACES  
NEVER MEANT TO STAND**

**UP TO IT - LIKE FIRE CONTROL**

**MECHANISMS AND OPTICS WHICH  
FOG UP... DELICATE PARTS**

**CORRODE AND SHORT OUT**

**THE DAMAGE IS EXTRABAD  
ON TURRET ARTILLERY IN  
TANKS AND RADIO EQUIPPED VEHICLES**

