

Give Your Operators a

ome equipment is abused because operators misuse it or "forget" to pull PMCS. No operator abuses equipment on purpose, but some do and don't know it



Leading Edge

Take the time to teach your operators the proper way to perform day-to-day preventive maintenance checks and services. Then teach them the proper operation of their equipment.

Fill out the form. Records make the difference. Make sure they insist the dispatcher gives them the equipment record folder with all the forms that will be needed during the mission.

Maintain to 10/20 Standards. Train operators how to be their own inspectors. They use the -10 TM to perform PMCS. If they find a fault or problem they can't fix, have them jot it down on the DA Form 2404 found in the equipment folder. You can get it fixed if need be before they use the

Check up on your operators from time to time. Ask them to perform the first check from their -10 TM's PMCS. They'll do it right if they've pulled PMCS by the book.

√Use the right machine for the job. Make sure your operators know what the equipment can do and how to make it do its job. This info is also in each machine's -10 TM.

Training is the only substitute for experience. Get involved. Never assume a new soldier knows how to do the job. Make sure by getting them to read the words, then showing them the right way!

FEB 92

equipment.



TB 43-PS-471. The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user

FEBRUARY 1992

2-4 M1015 EWS Carrier

FIREPOWER

G/VLLD

G/VLLD 2-4	M1015 EWS Carrier 12
Hellfire Missile System 5	M2/M3 Bradleys 12
AN/PVS-4 Night Vision	Combat Vehicles 13
Sight 6-7	M113A2-Series
TOW 2 8	FOV 14-15
Dragon 8	STE-M1/FVS CX205
M102 Towed Howitzer 9	Cable 15
MLRS 10, 12	NATO Slave
M1-Series Tanks 11	Cable 16-17
GROUND MOBILITY	
Administrative	Winches 22, 23
Vehicles 18	M997 HMMWV
M916 & M920 Tractor	Ambulances 23
Trucks 19	Seat Belts 24
Tactical Trucks 20	Cargo Cover Repair 25
M185A3/M109A3 Vans 20	Warning Reflector NSN 25
HMMWV 21	Battery PM 27-34
AIR MOBILITY	111.045.4
Plastic Windshield	AH-64A Apache 36-37
Fix Kit 35	Apache 30mm Gun 38
Aviation Messages 35	UH-1 S&S Nut 38
COMMUNICATIONS	
COMMUNICATIONS TK-101/G 39-43	H-182A/PT
	Microphone 45
Commo Shelters 44	wildroprione 45
TROOP SUPPORT	
New Pubs. SOUs 26	Snap Rings 52-53
VR11 Backfill	Tents 54–55
	M17-Series Masks 56
	M3A4, M157 Smoke
	Generators 57
D5/D7/D8 Tractors 49	Lubricating Unit 58–59
621B Scrapers 50	
RTL-10 Forklift 50	DD Form 314 60
3-KW DED Generators 51	
You are invited to send PS yo	our ideas for improving mainte-
nance procedures, questions	s on maintenance and supply

problems, questions or comments on material published in PS.

The Preventive Maintenance Monthly Lexington, KY 40511-5101

By Order of the Secretary of the Army:

GORDON R. SULLIVAN

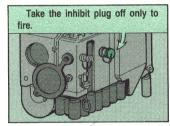
Mitter H. Hamilton MILTON H. HAMILTON

PS, The Preventive Maintenance Monthly (ISSN 0475-2953) is published monthly by the Department of the Army, Lexington, KY 40511-5101. Second Class Postage is paid at the Lexington, KY post office and at additional mailing offices. Postmaster: Send address changes to PS, The Preventive Maintenance Monthly, US Army Pubs Ctr, 2800 Eastern Blvd, Baltimore,

f the Ground/Vehicular Laser Locator Designator (G/VLLD) can't do its job, it will be about as much help locating a target as a compass without a needle. Keep your G/VLLD seeing 20/ 20 by keeping an eye on these points.

Inhibit Plug

The most important thing for you and your G/VLLD is to use the inhibit plug correctly. The plug is the best bet to insure that the G/VLLD's never fired accidentally and accidentally blinds someone.



And make sure the G/VLLD is off before you put on or take off the plug. If the G/VLLD's on when you plug in or pull off the plug, there will be arcing, which will burn the 1J1 connector pins. Burnt pins damage components like the wiring harness, power supply card, and even the whole G/VLLD.

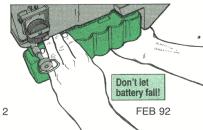
Easy installing the plug, too. If you align the plug wrong or force it on, you've created a high voltage hazard. Line it up and plug it in. If it doesn't slide home easily, something's wrong.



The battery release pin can be difficult to pull out when the battery's installed. But that's no excuse to yank on the pin. That just breaks it. A slow, steady pull is the answer. You can make the job easier by putting a light coat of GAA on the pin and using an M16 rifle bore brush to clean out the battery's pin hole.



Once the pin's in the release position, support the rear of the battery as you take it off the G/VLLD.



If you just pull down on the battery, you damage the battery and G/VLLD mounting plates.

MY SIGHT IS GONE AND NOW I'M OUT

OF WORK

Completely discharge the battery at least every six months. The batteries have a memory. If they're not used often, they will lose their charging capacity . . . unless they're completely discharged and then charged.

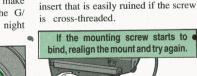
Night Sight

Before you go to the field, make sure there are no burrs on the G/ VLLD's mounting ring or the night sight's mount.

Feel for

burrs

FEB 92



some burrs.

lems as burrs.

If the mounting screw starts to bind, realign the mount and try again.

Mounting the night sight is a tight

fit. If burrs get in the way, you won't

be able to boresight the G/VLLD even

if you're able to mount the sight. Your repairman may be able to stone off

Keep paint away from the mounting

Be careful when turning the night

sight mounting screw. It has a nylon

ring, too. Paint causes the same prob-

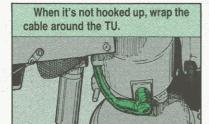




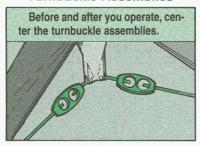


TU Interface Cable

If you leave the traversing unit interface cable dangling, you can count on it being torn off when you put it in or take it out of the carrier. A flapping cable can also break the leveling bubble.



Turnbuckle Assemblies



If they're not centered, the adjustable links are at their limits and can be stripped out or bent when you coarse

Cautions

Never manhandle the tripod. Its feet are just welded on and it doesn't take much of a knock to knock them off.

Easy does it mounting the G/VLLD on the traversing unit. If you jam it on, you bend the mounting plates. Even if the plates are only slightly bent, you can't boresight the G/VLLD.

In sandy areas, keep the G/VLLD covered as much as possible. The fan and trigger are big collectors of sand. You can't clean them. If they get too plugged with sand, you can't operate.

When you're through boresighting with the night sight installed, remember to remove the leveling bar.



If you forget, you can't adjust the G/VLLD downward and you may bend



RHE Plug Could Be Problem

Dear Editor,

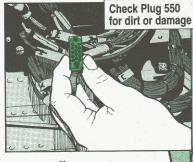
The troubleshooting steps for the Remote Hellfire Electronics (RHE) eventually say to replace the RHE if you can't fix the problem.

Hold one on that. We've found you can often cure RHE problems with a check of Plug 550 to the J5 connector, Look for dirt

in the plug and clean it if necessary. If the plug's damaged, get it replaced by support. Sometimes just taking off the plug and putting it back on cures the problem. But be very careful taking off and putting on the

plug. If you screw out or in one screw at a time, you bend plug pins. Screw one screw two turns and then the other two turns until both are either loose or tight.

SSG Bryce Ellison Ft Campbell, KY



CHECK THE RHE PLUG BEFORE YOU REPLACE IT!



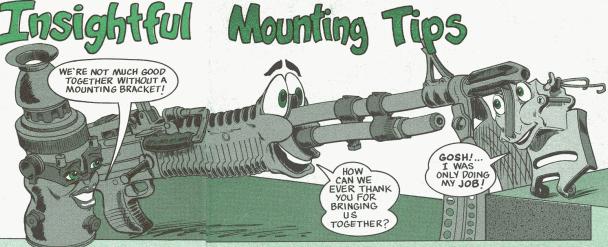
(Editor's note: Glad to give your suggestion a plug.)

eep these tips in sight, armorers, to keep your unit's AN/PVS-4s seeing in the dark and not in the dark:

M60 Mounting Bracket

Lots of M60 machine gun mounting bracket straight-headed pins, hinge pin latches, and straight headless pins are being lost. Without the pins, the AN/PVS-4 can't be mounted.

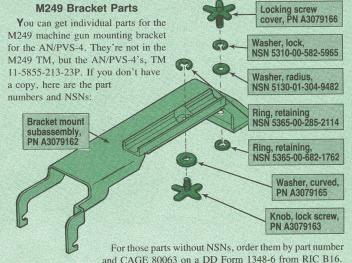
The big problem with the straight-headed pin and hinge latch pin is that they're often left on the M60 after the sight's removed and not replaced with the M60's hinge pin and hinge pin latch.





Make sure your unit knows there is a place on the mounting bracket to store the M60 pin and latch while using the sight. And make sure they remove the bracket pins and replace them with the M60 pin and latch when they're through with the sight. Check that all pins are present when the sight's turned in.

If the straight headless pin's missing, order a new one with NSN 5315-01-132-3577. Don't substitute the M16 rifle mounting knob assembly. It won't work.



b-Scribe to PM

Both the TOW and Dragon Dear Editor, have umbilical connectors with scribe lines. Over time the scribe lines become tarnished and dirty. This causes a poor connection with the missile and bad self-tests or firings.

We've found that cleaning the scribe lines with a pencil eraser cleans up the problem. Do it every time before you go to the field. PFC Jason Coburn Ft Campbell, KY



your solution and will line up behind it. Thanks.)

TOW 2 Missile System...

Beating the Heat

Most of the time the TOW's Dear Editor, night sight—and the rest of the system—has no problem dealing with heat. But we found on really hot days we'd get a "post amplifier" fail during the self-test. All the post amplifier needs

is a little heat relief. Lay a damp cloth over the post amplifier for 5-10 minutes and do the self-test again. If heat was the problem, your night sight will pass the test. PFC Jason Coburn Ft Campbell, KY



(Editor's note: A cool solution to a hot problem. Thanks.)

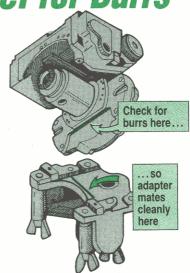
M102 Towed Howitzers...

Check Pantel for Burrs

Burrs or extra metal from the casting process on new M113A1 panoramic telescopes can keep them from seating right on the M134A1 mount.

Using the pantel mounted this way means you'll never get a good boresight and won't be able to hit your target.

Check the mating surface of the pantel adapter to see if there are any raised areas. If so, send the pantel to DS so that they can make it seat right. Then file an SF 368, Quality Deficiency Report. Info on filling out the QDR is in Chapter 11 of DA Pam 738-750 in the Maintenance Management Update.



Check Nitrogen After Move



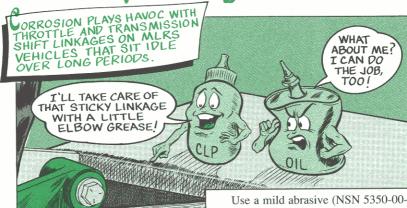
Desert Storm experience with the M102 towed howitzer has led to a PMCS change to help prevent blown recoil seals.

Moving the howitzer from one location to another where there's a temperature difference of $\pm 20^{\circ} F$ or more can cause problems for the recoil mechanism. You'll get poor recoil or blown seals, for example.

So, a unit maintenance check of the recoil mechanism nitrogen level before firing, but after such a move, will be added to TM 9-1015-234-10. The change will come between Items 3 and 4 in the PMCS. You need to note it now.

FFB 92

Sticky Linkage Solution



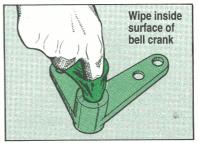
Dut those sticky bell crank assembly bushings and spacers can be freed with a little machine oil or CLP and some elbow grease.

Remove the bell cranks as shown on Pages 18-9 and 19-10 of TM 9-1450-646-20-5. Press out the spacers, but be sure not to damage them or the bushings. Damaged items must be replaced.



Use a mild abrasive (NSN 5350-00-222-0580 gets a 4-oz jar), plastic scraper or your fingernail to remove corrosion from the spacer, but don't rub or scrape hard enough to remove the cadmium plating. If you can't get the corrosion off, replace the spacer.

Wipe the inside surface of the bell crank with a clean, dry cloth. Do not



scratch the bearing surface. Lightly coat the spacer with machine oil or CLP and reinstall the parts.

If you don't have a problem now, keep the linkages working smoothly with a drop of oil or CLP on the bell crank mount points every month or so.

FEB 92

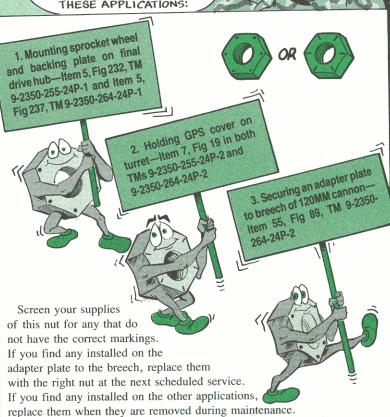
10

Make Grade 8 Nut Check

Three applications of Grade 8 self-locking nut, NSN 5310-01-123-1421, on M1-series tanks must be checked for an undergraded substitute.

The substitute does not meet application standards and must not be used.

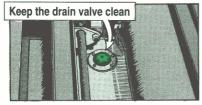
MAKE SURE GRADE 8 NUTS,
IDENTIFIED BY SIX RAISED POTS
ON THE FACE, ARE USED IN
THESE APPLICATIONS:



Drain Valve Check



hen the drain valve in the hull of the M1015 electronic warfare systems



carrier gets clogged with leaves, dirt and sludge, the hull fills with water.

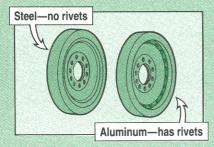
Water shorts out the electrical components, not to mention it makes things messy. Right now, look in the hull of the carrier for standing water. See any? If so, clean the valve to drain the water.

At each scheduled service, clean the trash out of the valve.

M2/M3-Series Bradley, MLRS..

Roadwheel Mix Explained

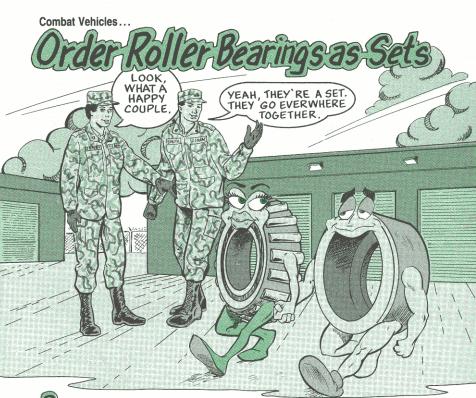
There are two types of roadwheels in the supply system for Bradleys and MLRS carriers. One is steel and the other is aluminum.



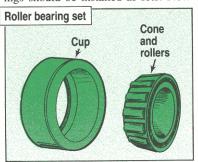
The steel roadwheel, NSN 2530-01-310-2237, and the aluminum roadwheel, NSN 2530-00-801-6702 are interchangeable on any Bradley model as long as this rule is followed:

Each individual road arm on a vehicle must have the same type of wheels. Do not pair a steel wheel and an aluminum wheel on the same road arm. MLRS carriers must use aluminum wheels only.

Aluminum wheels have a steel wear plate riveted to them. Steel wheels have no wear plate added and no rivets.



Soadwheel and support roller bearings should be installed as sets. Now



they can be ordered as sets for the following applications:

NSN 3110-00-100-5377—Cone and rollers plus cup (race) for the outer roadwheel bearing on the M60-series tanks and M88A1 recovery vehicles.

NSN 3110-00-100-4407—Cone and rollers plus cup for the inner roadwheel bearing on M60-series tanks and M88A1 recovery vehicles.

NSN 3110-00-100-5949—Cone and rollers plus cup for the support rollers hubs on M60-series tanks and M88A1 recovery vehicles.

NSN 3110-00-100-5377—Cone and rollers plus cup for the support rollers on M1-series tanks.

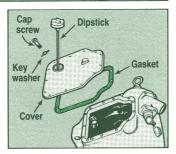
Differential



differential gasket leak once meant that your M113A2-series carrier or its differential got a trip to support for repair.

Not any more, because SGT Gene E. Baldwin of Ft Lewis, WA, submitted a SMART suggestion to let unit maintenance do the job.

The headshed agreed with Baldwin that unit mechanics could do the job. That saves the Army time and money, which put extra money in his pocket.



Cover Switch

Here's how the job's done, until your -20 level TMs are changed:

Remove the oil dipstick.

Remove 13 capscrews and key washers.

Remove the cover and gasket. Discard the gasket and the old key washers.

Install a new gasket, NSN 5330-00-679-9253, and place the cover over it.

Put a new key washer, NSN 5310-00-655-9668, on each capscrew. Then put a light coat of antiseize compound, NSN 8030-00-286-5453, on each capscrew.

Install the capscrews, torquing each to 21-25 lb-ft.

Bend each key washer over its screw to finish the job.

STE-M1/FVS Hardware...

CX205 Is Repairable

A new CX205 cable, NSN 6150-01-176-4781, costs almost \$7,200—which is what the taxpayer puts up if you don't turn in unserviceables to your supply support for depot repair.

The cable is in very short supply and carries an Automatic Return Item code of "E" on the AMDF. That means you turn in every bum but repairable cable you have immediately so it can be repaired.

When depot repairs the cable, delivery time goes down, too. That means next time you won't have to wait as long to be back in the turret testing business.



14



Longer Version

Solve long distance slave starting problems using the 50-ft power cable, NSN 6150-00-363-7102. It comes with NATO connectors and connector covers.

No More Shocks

Eyeball the slave cable where it goes into the end connector before each use. Look for any bare or exposed wires caused by the insulation pulling back from the connector housing.

Plus More



You can get a real charge out of your slave cable if you touch a bare or exposed wire. Here's how to fix it:

Disassemble the connector and disconnect the cable from the connector.



② Cut off the lug terminals. Strip back just enough insulation to put on new lug terminals, NSN 5940-00-115-5004.



③ Reconnect the cables to the connector. Make sure the positive lead (+) is reconnected to the center post and

the negative lead (-) is reconnected to the negative cup of the connector.

Reassemble the connector.

Connector Cover Fix

Inserts on the connector pulled out? That keeps the cover from sealing, and water gets inside and corrodes the cables. Fix the loose-screw problem like this:

Remove the cover.

Remove the inserts by threading in a screw and gently wiggling the insert until it comes out of the body of the connector.



Fill each hole about half way, using silicone adhesive caulk, NSN 8040-00-865-8991.

Press the insert back into the hole making sure it doesn't stick out.

® Run a thin bead of silicone adhesive caulk around the connector and replace the cover. Replace the screws and snug them down. Wipe off any caulk that oozes out. Let the caulk set an hour or two, and the cable is ready to use.

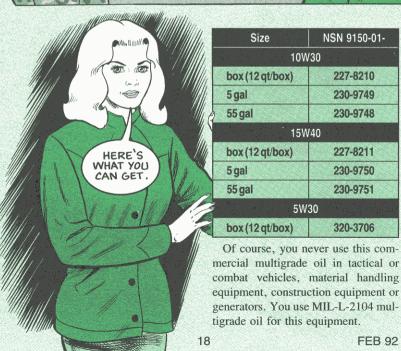
To get into the connector, remove the screws and use a sharp knife to cut the caulk.

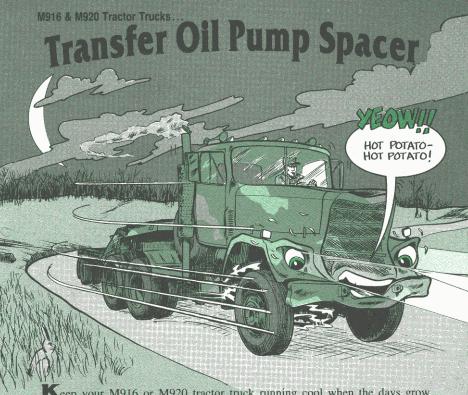
16 FEB 92

FEB 92 17

Multigrade Oil for Admin Use







Keep your M916 or M920 tractor truck running cool when the days grow warm: move the transfer oil pump spacer to the warm-weather position.

You've got to move the spacer and put the pump back to work—just like it shows in Para 7-9 of TM 9-2320-273-20. Otherwise, the oil can't lubricate the transfer. Next thing you know you've got burned out transfer gears.

Warm-weather seasonal service is the best time to change the spacer to the warm-weather position. Just move the spacer from between the pump and the



transfer case to its stowed position behind the pump. This engages the pump and lets the oil cool the gears.

When you pull your cold-weather seasonal service, change the spacer back to the cold-weather position. Move the spacer from its stowed position and put it between the pump and the transfer case.

Tactical Trucks.

Paint Your Pipes



hen heat and weather team up on unpainted metal pipes, they cause rust and leaks.

Don't take a chance on an NMC truck. Paint your exhaust pipe—from top to manifold—with a protective coating of heat-resistant olive drab paint. NSN 8010-01-235-4162 gets a gallon. It takes the heat, resists weather, and adds miles of life to your truck's exhaust system.

M185A3/M109A3...

Cables Need Changing?

When your DS shop changes the lower power input receptacle on your shop or instrument van, you'll need a new power cable to fit it.

You get a 102-ft cable with NSN 6150-01-290-2127. It matches the new 4-pin receptacle on your van. A 3-ft auxiliary cable to mate the power cable to a generator set is NSN 6150-01-298-1502. Make a note until the cables are added to the Basic Issue Items List in TM 9-2320-361-10.



For Want of a Pinhole



Taping over the brake warning light during blackout operations is a good idea—IF you remember to release the hand brake before you take off.

Sure, the light's glare can blur a pair of night vision goggles. But driving with the parking brake on can burn up a set of Humvee brakes.

Go ahead and tape the light if it bothers your night vision. Put a pinhole in the tape so you can tell if the light's on. Could save burned brakes . . . or an

accident if you don't see the warning light on during operation.



Remember to remove the tape when your night mission is over.

Winches...

Shear Pins Take No Substitute



hear pins are a sheer delight for your vehicle's winch.

That's 'cause this little piece of metal is made to break when the winch is overloaded, preventing damage to the winch and drive train.

Anything else used in its place—like a rivet, pin, bolt or nail-can let an overload snap the winch line. That broken wire rope can whip around and slice you in half! So-o-o-o, there's no substitute for a shear pin.

The most common shear pins are: Steel grooved Headless aluminum pin headed pin Headless brass pin

If you're on a winching operation and don't have a replacement for a broken pin, here's a fix for those aluminum and brass jobs: Discard 2 ends Cut this Original shear piece in half pin length of sheared pin Add wood dowel Wrap shaft with tape to hold pieces in place

ONLY A SHEAR PIN CAN DO THE JOB! USE THESE:

Truck	Front Winch Shear Pin NSN	Rear Winch Shear Pin NSN
11/4-ton TM-242-series	5315-00-080-9217	
21/2-ton TM-209-series	5315-00-736-8685	5315-01-044-8362
2½-ton Mdls V17A, V18A, MTQ & M764	5315-00-736-8685	5315-00-252-5669
5-ton TM-211, -260-series	5315-00-209-7979	5315-00-282-2583
5-ton TM-230-series	5315-00-880-5861	
5-ton TM-272, -358-series	5315-01-109-6846	5315-00-282-2583
10-ton TM-206-series	5315-00-421-1676	5315-00-421-1676
10-ton TM-233-series	5315-01-031-6212	

M997 HMMWV Ambulances...

Prevent Back Burns

The air conditioner in the M997 HMMWV ambulance will keep the patients cool on the way to the hospital. But it can give the passenger in the companion seat a burn on the way!

That's because the refrigerant lines to the air conditioner run behind the companion seat. The discharge line from the condenser is hot-hot enough to burn.

You mechanics can add insulation to the line to protect the passenger. You'll find the word on Page 3-56 of TB 43-0001-39-5 (Apr 91).

If you don't have a copy, check with your local TACOM Logistics Assistance Representative or write to Half-Mast.





FFB 92

22

23

Seat Belts...

Watch That Paint!

Paint and seat belt locking mechanisms do not mix. When paint gets inside of the locking mechanism, the belts might not lock. They can come loose when you need them most—during an accident.

If you notice paint on the locking mechanism (not the webbing) of your seat belts, do not try to remove it. That damages the seat belts, making them even less safe.



HERE'S HOW TO
MAKE SURE THE SEAT
BELT'S LOCKING MECHANISM
IS TIGHT AND LOCKED!



1. Push in the button on the buckle mechanism. The button should spring back to its original position.

7. Fasten the seat belts. Then try to pull them apart to see if they're locked

If the locking mechanism holds, continue to use the belts until new ones are available. Keep on checking the locking mechanism on the painted ones until replacements come in.

If the mechanism doesn't work, don't drive the vehicle until the belts are replaced.

For more info on seat belts and paint overspray, see TACOM Safety-of-Use Msg 90-30, AMSTA-M 010800Z Jan 91



tion coating, NSN 8030-00-281-2346.
First, wash off any dirt, grease and mildew. Put the cover on the truck. It's easier to apply the preservative that way, and the coating will dry faster.

keep things dry by treating it with canvas preserva-

The coating is flammable while it's wet, so keep open flames away. Have a fire extinguisher handy, too.

You'll find the details on applying the coating on Page 2 of C2, TM 10-8340-211-13. That's a tent TM, but you use the same procedure. Treating is also covered in Chap 14 of FM 10-16.

Let the first coat dry four hours, then coat the seams again. Make sure the canvas is completely dry before taking it off the truck.

You can use tentage repair kit, NSN 8340-00-262-5767, to patch holes and tears. The word on using the repair kit is in Chap 6 of FM 10-16. A cover that can't be patched with the repair kit needs to be turned in to DS for repair.

Warning Reflector NSN

You'll need to order NSN 9905-00-148-9546 to get the HMMWV's reflective warning triangle that's shown in the Additional Authorization List on Page C-3 of TM 9-2320-280-10. The parts info in the TM is wrong.

S-SOUs-PUBS-SOUs-P <u>m</u> ⊃ S-S0Us-1

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer printout provided by the Adjutant General.

TM 3-4240-325-20&P Sep M93 gas-particulate filter unit

TM 3-4240-327-20&P Sep M95 gas-particulate filter unit

TM 3-4240-328-20&P Sep M96 filter unit

TM 3-4240-332-20&P Sep M20 S-280 shelter

TM 5-3805-218-24P Aug Scraper, earthmoving

TM 5-3810-305-10 Aug LRT 110 RT crane

TM 5-3810-305-24P Jul LRT 110 RT crane

TM 5-3820-205-24P-1 Sep Crusher, roll, diesel and electric, 75 ton per hour

TM 5-3820-205-24P-2 Sep Crusher, jaw, model 5157B, 75 ton

per hour TM 5-4310-379-24P May Com-

pressor, model HII-271-5120

TM 5-4930-230-10-HR Dec Mil design tank and pump unit

TM 9-1005-201-10 Jul M249 machine gun

TM 9-1425-646-PCL Jul Multiple Launch Rocket System

TM 9-1425-655-24P Sep AN/TSQ-73 air defense command and control system

TM 9-1425-2525-24P Sep HAWK missile system

TM 9-1430-485-24P Aug AN/GJM-24 monitor-programmer, Lance field artillery missile system

TM 9-2320-266-24P Jul Cargo truck, M880-series

TM 9-2330-246-24P Aug Electronic van semitrailer, M3482 Series TM 9-2350-230-24P-2 Sep M551

Sheridan

TM 9-2805-262-14 Sep Engine

gasoline, 6 HP TM 9-4120-371-14 Sep Air con-

ditioner, 18,000 BTU/HR
TM 9-4120-389-14 Sep Air conditioner, 36,000 BTU/HR

TM 9-4120-405-13&P Aug Air conditioner, 18,000 BTU/HR
TM 9-6920-704-10 Sep Eye safe

system for AN/VVG-2 laser
TM 10-4320-310-14 Aug 100 GPM

pump unit TM 10-4330-232-12&P Sep Filter/

separator
TM 10-4610-232-12 May ROWPU

3,000 GPH trailer mounted

TM 10-4930-236-13&P Aug Mil Design tank and pump unit

TM 10-5411-205-23P Jun Shelter, electrical equipment

TM 10-6640-236-14&P Jul Blue M drying oven, model OV-510A3 TM 10-7360-208-13&P Sep Modular field kitchen (MFK)

TM 10-7360-211-13&P May Food sanitation center

TM 11-5821-330-13&P Aug AN/ ARC-199 radio set

TM 11-5895-474-20P-2 Oct Landing control central AN/TSQ-71B
TM 11-5895-1392-12 Sep Com-

munication system, control element, central processor ANTYQ-30(V)1 and AN/TYQ-30(V)2

TM 11-5895-1393-12 Sep Communication system, control element, nodal processor ANTYO-31 TM 11-5895-1393-20P Sep Communication system, control element, nodal processor ANTYO-31 TM 11-5895-1499-12 Sep Communications central ANTSC-122 TM 11-5895-1499-23P Sep Communications central ANTSC-126

TM 11-7010-248-10 Sep Version 1.2 communications systems control element (CSCE)

TM 11-7025-279-10-1 Sep LTACFIRE TM 11-7025-279-10-2 Sep

LTACFIRE

TM 11-7025-279-10-2 Sep LTACFIRE

TM 11-7025-279-10-4 Sep LTACFIRE

TM 11-7025-281-12&P Sep PT-546(V)1/U and PT-546(V)2/U Printers

TM 11-7025-295-12&P Sep Digital computer CP-1995/U

TM 55-1520-238-23P-1 Aug AH-64A Aircraft

TM 55-1520-238-23P-2 Aug AH-64A Aircraft

TM 55-1520-238-23P-3 Aug AH-64A Aircraft

TM 55-1520-238-23P-4 Aug AH-64A Aircraft

TM 55-1520-238-23P-5 Aug AH-64A Aircraft

TB 1-1520-238-20-09 Jul Inspect main rotor hub nut on AH-64A aircraft

TB 5-4120-389-24 Jan Model 3864 air conditioner

TB 5-4200-200-10 Sep Fire extinguishers

TB 9-4120-404-24 Sep Warranty for 36,000 BTU/HR air conditioner TB 55-1900-232-10 Towing manual

LO 9-2805-262-12 Sep LO, engine, gasoline, 6HP

SB 700-20 Sep Army adopted/ other items selected for authorization/list of reportable items

Maintenance Advisories & Safety-Of-Use Messages

AMCCOM SOU Msg 91-20— Operational, Inspect trail lock pin on M114A1/A2 howitzers, AMSMC-MA 0120908Z Nov 91

AMCCOM SOU MSG 91-22— Advisory, Safety Battery maintenance on Target Holding Mechanism/Tank Gunnery, AMSMC-MA 211940Z Nov 91.

AMCCOM Maintenance Advisory MSG 91-40—Inspect M1A1 tank M256 cannon, AMSMC-MA 081800Z Nov 91.

AMCCOM Maintenance Advisory MSG 91-37—Procedures to install adjust struts and tie rod assembly on the M1A1 tanks, AMSMC-MA 141800Z Nov 91.

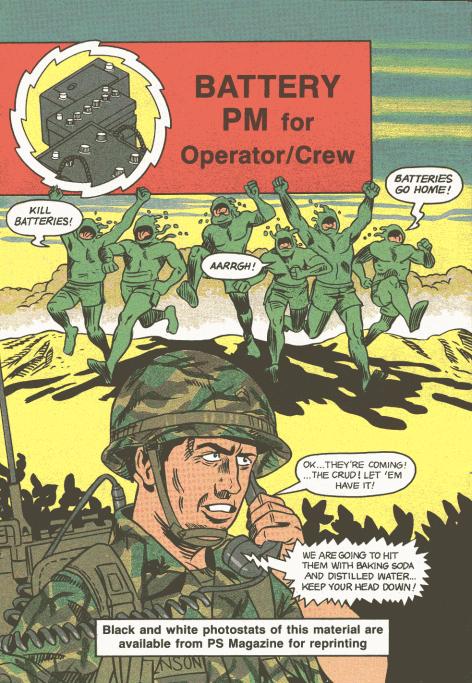
CECOM SOU MSG 91-11-01— Advisory, Safety for propane fired air antenna deicers for AN/GSC-52, AN/FSC-78 and AN/GSC-39 satellite communications terminals, AMSEL-SF-SEP 061900Z Nov 91. CECOM SOU MSG 91-11-02— Advisory, Inspect weld on towing pintle attachment and the trailer tongue on AB-1309(V)4/TRC antenna, AMSEL-SF-SEP 021600Z Dec 91.

TACOM SOU MSG 91-23—Advisory, Operational, Accelerator sticks on M113A1/A2, FOV, AMSTA-M 081300Z Nov 91.

TROSCOM Maintenance Advisory 91-33—Engine repair into on 3KW DED generators and AN/MJQ-32 and AN/MJQ-33 power plants. AMSTR-MEP 261330Z Sep 91.

TROSCOM Maintenance Advisory 91-43—Failure of injection pumps for 15-, 30-, and 60-KW DED generator sets, AMSTR-ME 041815Z Nov 91.

Your Direct Support or Logistics Assistance Office (LAO) can provide you with more information.



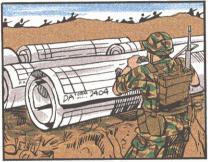
BATTESY FAILUSE...

The enemy is as close as the whites of your eyes if you let battery failure happen.



RECONNAISSANCE is your mission in the battle. Anything bad?

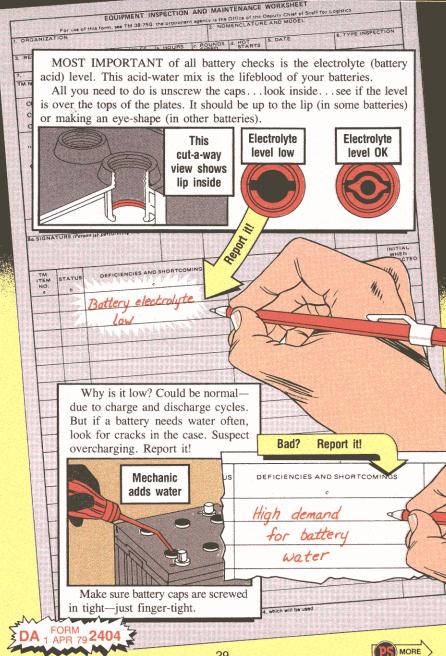
You are the first line of defense. Your PMCS and 2404's keep the enemy at bay.



FIRE POWER comes from Org Maint. Something wrong? They'll fix it!

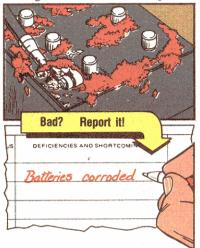


Look...Feel...Report...!!



YOU CAN'T MISS that fluffy or caked white stuff—corrosion! It comes from the acid in your batteries. It eats up metal parts. It causes your batteries to discharge.

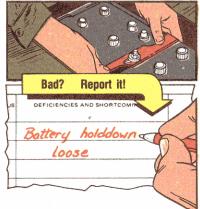
It's got to be cleaned off-report it!



LOOSE BATTERIES crack...and leak acid. They're shot—can't be fixed.

Make sure holddowns are snug. Grab hold. Try to move the batteries.

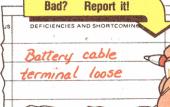
Loose? Get that holddown tightened!



HEAD OFF TROUBLE with engine starting—make sure battery connections are tight. Clamp tight on post. Cable tight on clamp.







Make sure all clamp connections are protected by rubber covers.

Check the other ends of those cables too...negative (-) ground connection

on the engine or chassis (or both on some equipment)...positive (+) connection on the engine starting motor.

Any loose? Get your mechanic on it!

THAT POSITIVE CABLE—and other "hot" cables—may be routed through holes in your equipment. Rubber grommets protect the cables from getting cut and causing short circuits. Make sure the grommet's in place. Slipped out? Put it back. Missing? Report it!



Grommets protect cables

Battery ground cable loose on engine

Bad? Report it!

s DEFICIENCIES AND SMORTCOMIND

c Battery cable

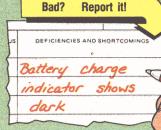
grommet missing

MAINTENANCE-FREE batteries are easiest.

You can't check the electrolyte level. Just eyeball the charge indicator. If you don't see a green dot, you're in for battery trouble. Report it!







Of course, you also check to make sure batteries are clean... holddown is snug...cable connections are clean and tight.

You're in the driver's seat!

GO OR NO-GO...it's mostly up to you. Nobody else has a better handle on the condition of your batteries. You make 'em or break 'em. You're the one who's stuck when bum batteries can't get your engine started.



DEAD BATTERIES are a sure bet if you suck all of the power out of 'em and don't put it back.

This can happen in cold weather... when your engine's hard to start...and you use up all of the battery power to get started...and you make a short

WHAT TH'...IT STARTED
GOOD WHEN I LEFT THE
MOTOR POOL A FEW
MINUTES AGO!

HE SHOULD KNOW MY
BATTERIES ARE WEAK AFTER
THAT START...AND HE DIDN'T
GIVE 'EM A CHANCE TO GET
CHARGED BACK UP!

trip...and you shut your engine down...and your batteries don't have a chance to get charged back up.



Freezing is another threat to weak batteries. They can freeze solid—and break!

A fully-charged battery can take cold down to -90° F.

So how can you tell when your batteries are charged back up?

Just eyeball your bat-gen indicator or ammeter...before you shut down... with your engine running at high idle. If the gage shows a high rate of charge, the charging system is still putting power back into your batteries. Keep your engine at high idle until charging drops back.

Then your batteries will be rarin' to go again when you need 'em.

RUINED BATTERIES are a sure bet if you let the charging system work on 'em too hard and too long. Overcharging makes heat. Those plates inside the battery buckle. The battery's ruined—it can't be charged up again. Overcharging boils off the water part of the electrolyte—the battery always needs water.

Keep your engine running until the needle moves from the high charge rate (right side of gage) to this normal charging rate

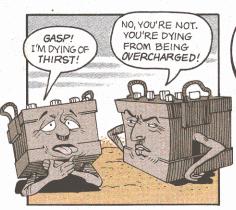




So how can you tell when your batteries are being overcharged?

Your bat-gen indicator or ammeter tells you.

If the gage shows a high rate of charge when your engine's been running for 30 minutes, there's a good chance your batteries are being cooked to death!





indicator shows

Make sure your shop checks out the charging system. Maybe all that's needed is voltage regulator adjustment. Get overcharging fixed—before you find yourself in a fix!

FFB 92



Plastic Windshield Fix Kit

Acrylic and polycarbonate plastic windshields have advantages over glass, but some disadvantages, too. They scratch, develop crazing and get hazy. These problems increase in sandy areas with high heat.

Until now, small repairs could be done, but major problems required new windshields.

Now there's a plastic transparency repair kit, NSN 4920-01-332-1685, authorized for AVUM use. The kit will let you tackle bigger jobs and save replacement costs. Repair can be done by hand or with a random orbital sander, NSN 5130-01-333-3179, also authorized for AVUM use.

Use the windshield repair limits in your TM and follow the instructions in the kit.



Aviation Messages

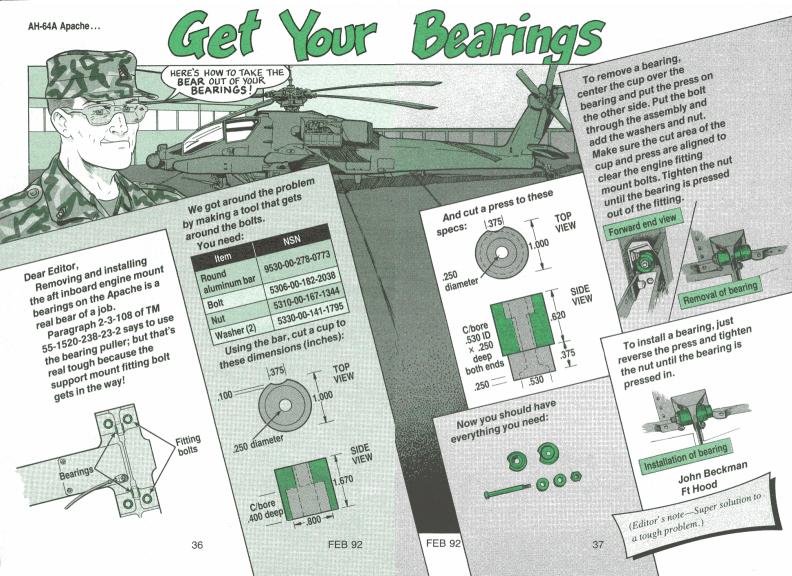
If your unit has not received a message you have an interest in, check with your next higher headquarters.

AH-64-92-ASAM-01, Operational, AH-64A Apache hot refueling procedures, 151600Z Oct 91. CH-47-92-ASAM-01, Maint Mand, CH-47D, MH-47D, and MH-47E, One time inspection of interference between the engine cross shaft and the right hand fairing access cover, 161900Z Oct 91. AH-1-92-ASAM-01, Maint Mand, Revision to the re-establishment of a new tracking of time between overhaul for the servo cylinder assembly, NSN 1650-01-106-3572, 221300Z Oct 91. UH-1-92-ASAM-01, Maint Mand, Revision to the re-establishment

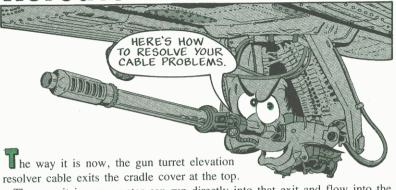
of a new tracking of time between overhaul for the servo cylinder assembly, NSN 1650-01-016-3572, 221300Z Oct 91. OH-58-92-ASAM-01, Maint Mand, OH-58A/C, Info concerning installation and maintenance inspection requirements for new spare, 312100Z Oct 91. UH-1-91-02, SOF, Tech, UH-1H/ M/V and EH-1H/X, Inspect tail rotor yoke assembly for specific serial numbers, 091630Z Sep 91. AH-64-91-05, Tech, AH-64A, Inspect vertical stabilizer barrel nuts and bolts, 122100Z Sep 91. OV-1-91-ASAM-06, Maint Mand.

CAT 1 EIR Phone: DSN 693-2066 (24 HOURS)

OV-1D/RV-1D, Inspection of T53-L-701 engine fuel heater and filter assembly for evidence of main fuel cell sealant contamination, 251630Z Sep 91. AH-1-91-ASAM-17, Maint Mand. AH-1 and UH-1M, Re-establishment of a new tracking of time between overhaul for the servo cylinder assembly, NSN 1650-01-016-3572, 301430Z Sep 91 UH-1-91-ASAM-18, Maint Mand, AH-1 and UH-1M. Re-establishment of a new tracking of time between overhaul for the servo cylinder assembly, NSN 1650-01-016-3572, 301430Z Sep 91.

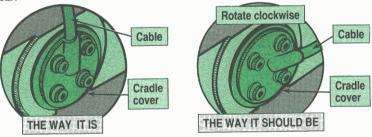


Reroute Resolver Cable



The way it is now, water can run directly into that exit and flow into the trunnion cavity where it shortens the life of the trunnion needle bearings and the elevation resolver.

The way it should be, the elevation resolver cable exits the cradle cover at the rear.



To make it the way it should be, rotate the position cover on the cradle (Item 3, Para 4-7-51.7.b. of TM 9-1090-208-23-1) 90 degrees to the rear. Now route the cable. It will still have plenty of clearance.

Do the fix when you replace the elevation resolver.

UH-1 S & S Nut

If the retaining nut on your Huey's scissor and sleeve assembly, Item 33 of Fig 5-44 of TM 55-1520-210-23-1, won't stay tight, check to see if you're using the correct torque. Change 15 to the TM changed the torque from 150-200 lb-ft to 200-250 lb-ft.

Electronic Equipment Tool Kit



SC 5180-91-CL-R13 (Nov 84) gives the items in your TK-101/G Tool Kit, NSN 5180-00-064-5178. However, the SC is on microfiche so it's real hard to inventory the tool kit.

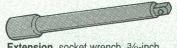
Don't despair. Use this list to make sure you have everything you need.

Battery, dry cell (pkg of 12) NSN 6135-00-835-7210





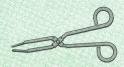




Extension, socket wrench, %-inch drive NSN 5120-00-227-8107



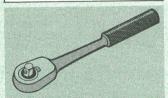
Extension, socket wrench, 3-inch NSN 5120-00-243-1689



Extractor, electron tube, tong type NSN 5120-00-293-0808



Flashlight, hand, 2-cell NSN 6230-00-163-1856



Handle, socket wrench, ratchet, reversible NSN 5120-00-240-5364

Handle, socket wrench, 3/s-inch drive, 8-inch length, hinged NSN 5120-00-240-5396



Tape, insulation, electrical, black, 0.75-inch wide NSN 5970-00-419-4291



Key set, socket head screw, spline drive. L type NSN 5120-00-087-6415

Key, wrenching size	NSN 5120-00-
0.060 inch	293-0195
0.145 inch	277-1724
0.115 inch	224-2482
0.071 inch	224-2496
0.187 inch	198-5410
0.072 inch	249-9670
0.189 inch	224-4660



Key set, socket head screw, hexagon, 1 tupo NCN 5120-00-720-6302

L type 14314 3120-00-123-0032		
Key, short series	NSN 5120-00-	
.250 inch	224-4659	
.078 inch	224-2504	
.125 inch	240-5292	
.188 inch	240-5300	
.156 inch	198-5392	
.062 inch	198-5398	
.350 inch	198-5400	
.050 inch	198-5401	
.094 inch	242-7410	
.219 inch	242-7411	



Key, socket head screw, I. type, short series, .141 inch



Knife, pocket, electrician's, two blades NSN 5110-00-240-5943

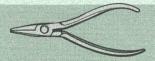


Mirror, inspection, all angles NSN 5120-01-313-4097

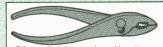


Pliers, diagonal cutting, regular nose, plain, 4-inch length

NSN 5110-00-965-0974



Pliers, round nose, short, without cutter, 6-inch long NSN 5120-00-240-6172



Pliers, slip joint, regular, with cutter, NSN 5120-00-223-7396 6-inch long



Screwdriver set, jeweler's, swivel knob NSN 5120-00-288-8739

Screwdriver	NSN 5120-00-
0.040 inch tip	180-0706
0.055 inch tip	180-0727
0.070 inch tip	180-0728
0.080 inch tip	180-0729
0.100 inch tip	180-0730
0.025 inch tip	180-0705



Screwdriver, flat tip, .141 inch tip NSN 5120-00-278-1267



Screwdriver, offset, double offset, single flat tip each end, .156 inch tip NSN 5120-00-287-2129

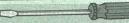


Screwdriver, cross tip, Phillips	NSN 5120-00-
1½ inch	227-7293
3 inch	240-8716
4 inch	234-8913





Screwdriver, flat tip, non-magnetized, 1/8-inch tip NSN 5120-00-236-2140



Screwdriver, flat tip, plain, 1/4-inch NSN 5120-00-222-8852

Screwdriver, flat tip, 1/4-inch NSN 5120-00-596-8502



Screwdriver, double offset, flat tip each end, 5/32-inch NSN 5120-00-288-9710



Screwdriver, offset, ratchet, flat tip, 1/4-inch sm blade and 3/8-inch lg blade NSN 5120-00-595-9574

Screwdriver, offset, ratchet, crosspoint NSN 5120-00-892-5931



Screwdriver, flat tip, 3/16-inch tip NSN 5120-00-278-1270



Socket, socket wrench, double hex,	NSN 5120-00-
3%-inch socket, 3%-inch drive	227-6702
1/2-inch socket, 3/8-inch drive	237-0977
7/16-inch socket, 3/8-inch drive	227-6703
%-inch socket,	227-6704



Solder, lead-tin alloy, rosin core, 1 pound spool NSN 3439-00-555-4629



Soldering gun, temperature-controlled NSN 3439-00-004-0915

Consists of the following:

Housing, with trigger and power cord NSN 3439-00-004-0913

Powerhead, with 0.187-inch wide chisel point head, rated 700 degree Fahrenheit NSN 3439-00-004-0917 Powerhead, 0.125-inch conical point head, rated 600 degree Fahrenheit NSN 3439-00-004-0916



Universal joint, socket wrench attachment, 3/e-inch drive NSN 5120-00-224-9215

2	
Wrench, box and open	NSN 5120-00-
½-inch	228-9506
3/8-inch	228-9504
7/16-inch	228-9505
9/16-inch	228-9507



Wrench set, socket, type I spin screwdriver NSN 5120-00-542-5799

Consists of the following:

Roll, tools and accessories

NSN 5140-00-356-4503

Wrench, socket	NSN 5120-00-
½-inch	293-0375
11/32-inch	293-0796
3/a-inch	596-1263
7/16 -inch	222-1499
7/32-inch	277-1801
5/16-inch	224-2596
3/16-inch	224-2599
1/4-inch	241-3188
9/16-inch	294-9514



Wrench set spanner NSN 5120-00-658-9805



wrench, open end, adjustable, size 6, 5½ to 6½ NSN 5120-00-264-3795

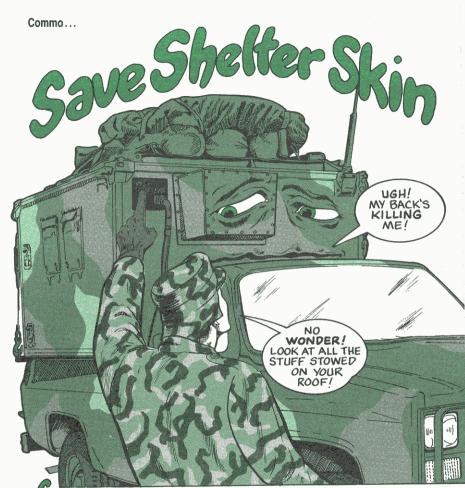
43

FEB 92





PS END



That's good for getting your gear to the field, but it's not good for the shelter. Ground rods, cargo or concertina wire will damage the shelter roof's skin.

Save your shelter's skin by carrying cargo in the trailer. That's why you have it. So if you've been hauling cargo on top of your shelter, get up and look over the roof real good. If you see a puncture or broken seam, get it fixed immediately. TB 43-0124 tells what you can fix and what tools and materials you need to do the work. Also, for more info, see TM 10-5411-205-14 for the S-250 shelter and TM 10-5411-207-14 for the S-280 shelter.

H-182A/PT Microphone Headset

There are no TMs available for the H-182A/PT microphone headset, so finding NSNs for repair parts is impossible.

ALL THE PARTS ARE AVAILABLE AND SEVERAL HAVE NSNS

HERE'S WHAT

ltem	NSN or P/N
Headband assembly	11043A*
Earphone cup kit	10895Y*
Earphone, 300 ohms	10596A*
Earphone pad assembly	5965-01-290-7085***
Cable assembly	11051**
CX-4434/U short cable assembly	5995-00-848-7662
Earcup cushion assembly	5965-01-105-7901***
Microphone	10927C*
Boomassembly	5965-01-049-7236***
Boom support assembly	5965-00-755-4657
Clothing clip	10294B*
Headband pad assembly	5965-01-290-7033***
H-182 switch assembly	5930-00-037-7157
U-161/U connector	5935-00-577-8677

^{*}Order on DD Form 1348-6 using CAGE 18068 and part number from RIC S9E.

^{***}Order on DD Form 1348-6 from RIC S9E. State in the Remarks block, "NSN not on AMDF."



^{**}Order on DD Form 1348-6 using CAGE 18068 and part number from RIC S9G.

VR11 Backfill Tamper...

a Hoppin'

The tamper sputter is your handoperated tamper's way of telling you it's running rough and needs maintenance.

You operators can help put sputter in the gutter and keep on the job by following these pointers:

Remove the spark plug and eyeball the electrode to see if it's oilsoaked and fouled. Wipe the plug off with an old rag. Then reset the gap at 0.040-inch-about the thickness of a dime.



Use a dime to reset gap if a gage is not available

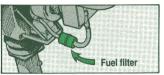
Clean air keeps things running smooth-no sputter. Remove the filter element from the air cleaner box to see if it's clogged. If it is, carefully soak it in gasoline for a minute, then wipe it off. Be sure to let the element dry before putting it back into the air cleaner.





FEB 92

Neep the fuel clean. Clean away dirt and sand from around the gas cap before refueling. Keep the fuel container covered in the field.

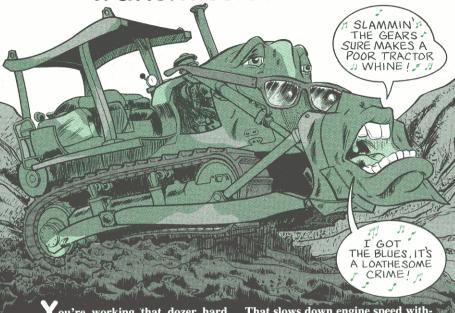


Once you've covered the sputter, keep the hop in the tamper's spring with enough of the right oil. Eyeball the spring housing's oil level sight gage. Low? Remove the fill sight plug and add OE/HDO 30 until the oil level reaches the fill sight hole.



Open fuel vent 47

Transmission Blues



You're working that dozer hard and fast. Rugged terrain is starting to shape up. You've just pushed a load of earth out of the way, and now you want to hurry back for another load. Slam those gears in reverse and move out. Hear that mournful whine? That's your transmission singing the blues.

Every time you shift in or out of reverse without reducing engine speed you're putting unnecessary strain on your transmission. And that's bound to shorten its life. Here's how to change your tune so YOU won't end up singing the blues:

While your Cat's still on the move, push down the decelerator pedal.

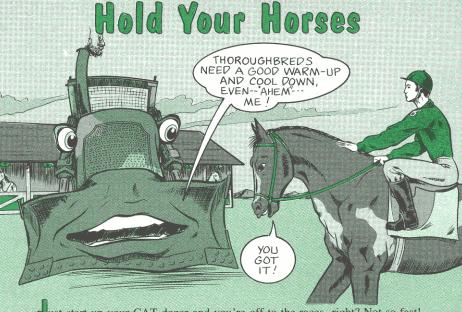
That slows down engine speed without changing the governor control setting.



Stop your Cat dead in its tracks. Shift in or out of reverse.

Ease up on the decelerator pedal to speed up the engine and return it to the governor control setting.





Just start up your CAT dozer and you're off to the races, right? Not so fast! Running a dozer's a lot like training a racehorse—you got to put it through its paces. An easy warmup, then a hard workout, and finally a little time to cool down —that's the exercise that'll put your CAT in the winner's circle. Here's how:

Immediately after startup make sure you have engine oil pressure. Then run the engine at low idle—1/4 to 1/2 throttle—for 5 minutes. That gives the oil time to lubricate the parts. It also lets the engine warm up enough to boil off condensation caused by normal engine breathing. So you won't have to worry about condensation mixing with the oil and forming a sludge that'll clog the engine.

Once you've got the dozer warmed up and operating, check the gages, especially the water temperature and the engine oil pressure. They should be within the normal operating range.



And after you've run that dozer hard, rein it in easy. Idle-cool the engine for 5 minutes before shutdown. The engine needs to cool down slowly, or the sudden rise in heat can crack the block, warp a head or valves, or bake the oil till it's not slick enough to lube the bearings.

621B Scrapers...

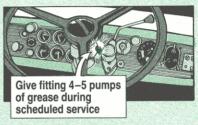
Snub of a Grease Fitting



ven with power steering, these big dirt-moving rigs are hard to steer. You've got 33 tons of iron and dirt to move around.

You don't want to make your job even more difficult by having to put up with a sticking shaft in the steering column. And you get binding in the steering column if you forget to lube one strategic fitting.

That fitting is out of sight—and out of mind—so it's often overlooked.



10,000-lb RTL-10 Forklift...

New O-Rings Make a Difference

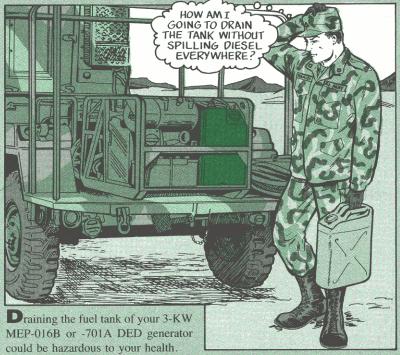
Changing those big tires is a big job that takes a big chunk out of your day. It's a job you don't want to have to do again right away.

When you repair a tire, you have to put in a new valve stem and a new Oring every time. The old Oring may still look good, but it won't seat right. It'll leak. Same thing's true for the valve stem.

USE THESE NSNs TO ORDER REPLACEMENTS.

Item ***	NSN		
Tire	2610-00-726-5168		
Valve Stem	2640-00-995-3138		
O-Ring	5330-00-852-3818		
NO. OLD ENGINEE	/ / /		

Fuel Drain Needs Elbow Room



Because the fuel drain cock is located level with the bottom of the tank, draining fuel without spilling it is almost impossible.

When the drain is opened, fuel spills along the generator's skids and onto the trailer bed. Any stray spark from the battery can ignite the fumes.

Avoid this danger by attaching an elbow tube to the drain cock. This tube directs the fuel stream straight down where it's easier to collect. The elbow tube doesn't have an NSN, so order it on a DD Form 1348-6 using CAGE 96906 and part number MS51521B5(Z) from RIC A12.

For extra ease in emptying the tank, attach a piece of flexible tubing, NSN 4720-00-586-0971, to the elbow tube. The tubing's not listed on the AMDF, so order it on a DD Form 1348-6 from RIC S9C and put "NSN not on AMDF" in the Remarks block.

And remember, if the fuel's no longer usable, dispose of it in an approved fuel waste container.

FFR 92



Snap Ring K

N SN 5365-00-213-9035 gets a snap ring kit that has an assortment of external and internal snap rings.



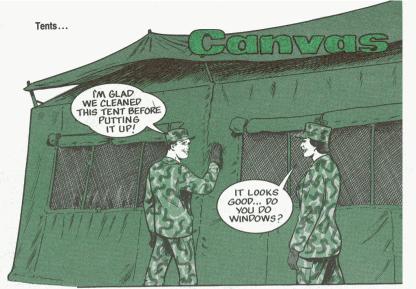


	Size	Qty	NSN 5365-00-
	5/32-in Shaft	10	PN 3100-15 CAGE 97464
Ī	3/16-in Shaft	10	PN 027-2434
	1/4-in Shaft	10	720-8064
	1/2-in Shaft	100	803-7301
	1/2-in Shaft	15	PN 4100-50 CAGE 08292
	9/16-in Shaft	10	584-6557
2000000	5/8-in Shaft	100	803-7305
	11/16-in Shaft	100	810-8932
	3/4-in Shaft	10	803-7303
	25/32-in Shaft	10	804-7653
	27/32-in Shaft	10	PN 3100-84 CAGE 08292
	9/16-in Shaft	10	803-7304
	E Ring, 7/16-in Shaft	10	905-3633
-	E Ring, 1/8-in Shaft	100	816-4239
	E Ring, 5/32-in Shaft	10	200-8319
	E Ring, 3/16-in Shaft	100	282-1633

External O			
Size	Qty	NSN 5365-00-	
E Ring, 7/32-in Shaft	10	682-1498	
E Ring, 1/4-in Shaft	100	721-7680	
E Ring, 5/16-in Shaft	100	682-1762	
E Ring, ½-in Shaft	100	442-5845	
E Ring, 5/8-in Shaft	10	842-2613	
E Ring Bowed, 1/2-in Shaft	10	664-5389	
Reinf. Ring, 3/8-in Shaft	10	256-2465	
Reinf. Ring, 9/16-in Shaft	10	PN 400-112-SS2 CAGE 97464	
Crescent, 7/32-in Shaft	10	993-5303	
Crescent, 3/8-in Shaft	50	584-6620	
Crescent, 1/2-in Shaft	10	256-2846	
Crescent, 5/8-in Shaft	10	887-8342	

WHAT DO YOU HAVE IN INTERNAL SNAP RINGS. THAT BOX 2 Internal 1/2-in Housing Qty | NSN 5365-00-5/8-in Housing 3/4-in Housing 804-9743 100 7/8-in Housing 687-3379 10 1-in Housing 754-1082 10 1.023-in Housing 804-9739 10 11/16-in Housing 807-2636 100 11/4-in Housing 721-4828 10 13/8-in Housing 811-4073 11/2-in Housing 804-2786 10 13/4-in Housing 754-1083 10 804-3891 804-5827 Order part numbered items on a DD Form 1348-6 by using the CAGE, part number and RIC S9I. **FEB 92** 53

52



54

ecause mildew thrives on a combination of heat, dirt, dust and water, canvas tents won't stand a chance without lots and lots of PM help.

Always clean mildew-infected canvas before using it. Use the wire brush in your tentage repair kit to brush dirt, sand and dust off the canvas. Scrub the tent clean with a soft bristle brush and a mixture of mild soap and water.

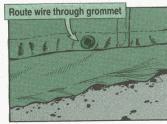
Plenty of sun and fresh air are good for your tent. Always hang it in the sun to dry. Make sure it's completely dry before folding.

Most tent damage is caused by abuse and neglect. Memorize these tips to stop damage:

Be careful when erecting and dismantling the tent. Tent poles can tear

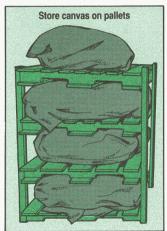
or poke holes in canvas and window screens.

- ♠ Loosen the tent lines when it rains. Canvas shrinks as it gets wet. Lines get tight and rip canvas.
- Never cut or poke a hole in the canvas to route a wire or cable into the tent. The hole will tear and get bigger. Use a grommet from the repair kit and route the wire through the grommet.



Care

- Onn't roll stakes and poles up in a tent when you're storing it. Wood absorbs moisture. When wood's stored with canvas, mildew forms.
- Never store damp, wet or dirty canvas.
- Store canvas on pallets in wellventilated areas. Never store canvas on the ground or in the open where there's dew.



Never use a forklift to move canvas unless the canvas is stacked on pallets. Forks rip and gouge canvas.

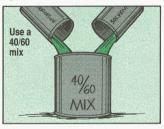
Waterproofing Preservative

Sometimes tents leak, but you can't find any holes. When this happens, apply water-proofing preservative. Para 4-19 of TM 10-8340-211-13 has the instructions.

55

FEB 92

Use a 40-60 mix of preservative, NSN 8030-00-281-2346 (5 gallons), and dry cleaning solvent, NSN 6850-00-264-9038 (5 gallons). Spray, brush or roll on the mixture. A gallon of mixture will cover approximately 90 square feet of canyas. Place the tent



outside or in a well-ventilated area to dry.

Zipper Lubricant

If your tent's zipper is hard to zip, apply zipper lubricant, NSN 9150-00-999-7548. Rub the lubricant on each side of the track and then slide the zipper up and down a few times.

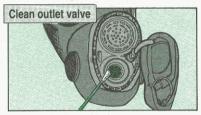


Passing the Seal Test

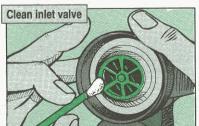


If a mask fails the seal test, try this bit of PM before you turn in the mask.

Use a cotton-tipped swab dipped in isopropyl rubbing alcohol, NSN 6505-00-655-8366, to clean the outlet valve



and valve seat of dust, dirt, or sand. Do the same with the inlet valves.



With the mask properly fitted on the soldier, have the soldier inhale and hold his breath for 10 to 15 seconds. Dip a swab in Reagent N-amyl acetate (banana oil) and wave it around the outlet valve.

If the soldier smells banana oil, the outlet valve's bad. Remove it. Inspect, clean, and install a new outlet valve. Do the banana oil test again.

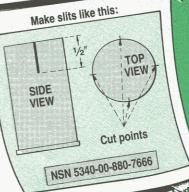


Caps Stop Sand

Dear Editor. Blowing sand causes smoking problems for the M3A4 and M157. Sand blows in the smoke discharge holes, settles in the engine chamber, and eventually makes it difficult for the fog oil to vaporize and produce smoke.



We've sealed out sand with barrel caps for the M16 rifle. Any time we're in a dusty, sandy area, we put caps on the three smoke discharge hole spouts. The caps fit tight after a 1/2-in long slit is made on four points of the cap. When it's time to smoke, it's no problem pulling off the caps.



Your armorer should have plenty of extra barrel caps. Or you can order them with NSN 5340-00-880-7666.

CPL Keith Sapp SPC Edward Jones Ft Campbell, KY

(Editor's note: Your suggestion lights the way to better smoking. Thanks.)

Tone It Down

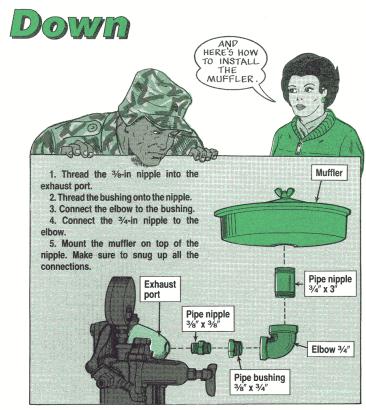


ork around a pneumatic lubricating unit, NSN 4930-00-720-4849, long enough and you'll get an earful. Loud noise from the lubricator is more than just annoying—it's downright hazardous. It could cost you your hearing.

But SFC Philip C. Haney of the South Dakota National Guard found a way to cut down the noise to a safe level by installing a muffler on the lubricator's exhaust port.

_				_
∕H	ERE'RE	THE	PART	rs
<u> </u>	YOU'LL			
				~

Item	NSN	
Intake Muffler	2990-00-115-3919	
Bushing	4730-00-817-6578	
Elbow	4730-00-249-3900	9
Nipple, 3/4-in dia	4730-00-196-1498	
Nipple, 3/8-in dia	4730-00-071-3175	





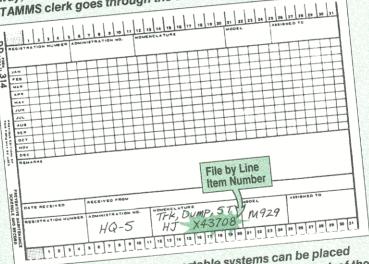
Easier Filing System



It's always a hassle to gather the information for the DA Form 2406 Materiel Condition Status Report from the unit's DD Form Dear Editor.

If the 314s are filed in bumper number sequence, the TAMMS clerk has to thumb through the cards several times to get the 314s. downtime information. This makes it easy to miss a piece of equipment on the status report.

Since the equipment is listed by Line Item Number (LIN) on the 2406 report, our clerks file the 314s in LIN sequence. This way, no equipment is missed on the status report and the TAMMS clerk goes through the cards once.



Trailers that belong to reportable systems can be placed after the prime mover's 314 or consolidated at the back of the file.

MSG Matthew Kossick Plattsburgh, NY

(Editor's note: Sounds like a good idea. Check the equipment's LIN in AR 700-138 to make sure it's a reportable item before putting it on the DA Form 2406.



Hazardous Material & Waste Training Video

Need a training video on handling and controlling hazardous materials and waste in the motor pool? Get your training and audiovisual folks to order "Every Little Bit Hurts" with PIN 709223DA

M113 Carrier Bearing NSN

Steering linkage bearing unit, NSN 3130-00-108-0683, often does not meet design specs, making it nearly impossible to mount on M113series carriers. Instead, use NSN 3130-00-781-8903. The bearing is shown as Item 3 of Fig 187 in TM 9-2350-261-24P.

Repair Engine or Replace Generator

There are no more Onan diesel engines, NSN 2815-01-274-6803, in supply. If this engine on your 3-KW DED generator breaks down, you'll have to repair it or replace the whole generator. The word's in TROSCOM Maintenance Advisory Message 91-33, AMSTR-MEP 261330Z Sep 91. Can't find a copy? See your local TROSCOM Logistics Assistance Representative.

GSA Paint Hotline

The General Services Administration (GSA) now has a hotline for complaints or questions about paints, sealants, adhesives and chemicals. Call FTS 396-7109 or commercial (206) 931-7109. The hotline works 24 hours a day. When you call, give your name, unit, commercial phone number, the NSN of the item you want to discuss and the problem.

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION (Required by 39 U.S.C. 3685)

1A. Title of Publication: PS The Preventive Maintenance	10. Extent and Nature of Circulation:	
Monthly	Average no.	Actual number of
1B. Publication No. 341-950	copies each	copies of single
2. Date of Filing: October 11, 1991	issue during	issue published
3. Frequency of Issue: Monthly	preceding12	nearest to filing
3A. No. of issues published annually: 12	months	date
3B: Annual Subscription Price: Free	A. Total No. Copies (Net press	
4. Complete Mailing Address of Known Office of Publication	run) 174,582	171,451
(Street, City, County, State and ZIP+4 Code) (Not printers):	B. Paid and/or Requested	
PS Magazine Branch, USAMC Materiel Readiness Support	Circulation	
Activity, LBAD, Lexington, Fayette County, KY 40511-5101	Sales through dealers and -0-	-0-
5. Complete Mailing Address of the Headquarters of General	carriers, street vendors and	
	counter sales	
Business Offices of the Publisher (Not printer): Department	2. Mail subscriptions 167,248	164,559
of the Army, Washington, DC 20310	C. Total Paid and/or Requested Circulation 167.248	164 886
6. Publisher: Department of the Army, Washington, DC	Circulation 167,248 D. Free Distribution by Mail,	164,559
20310	Carrier or other Means:	
Editor: Donald K. Hubbard, PS, The Preventive Mainte-	Samples, Complimentary,	
nance Monthly, USAMC Materiel Readiness Support Ac-	and Other Free Copies 7,344*	6,892*
tivity, Lexington, KY 40511-5101	E. Total Distribution	0,092
Managing Editor: James. N. Boblenz, PS, The Preventive	(Sum of C and D) 174,582	171,451
Maintenance Monthly, USAMC Materiel Readiness Support	F. Copies Not Distributed	., ., ., .
Activity, Lexington, KY 40511-5101	1. Office use, left over, -0-	-0-
7. Owner: Department of the Army, Washington, DC,	spoiled after printing	
	2. Return from News Agents -0-	-0-
20310	G. Total (Sum of E, F1 and	
8. Known Bondholders, Mortgagees, and Other Security	2should equal net press run	
Holders Owning or Holding 1 Percent or More of Total	shown in A) 174,582	171,451
Amount of Bonds, Mortgages or other Securities: None	*Shipped to other DoD Agenices fo	

9. For completion by Nonprofit Organizations Authorized to 11. I certify the statements made by me above are correct and complete. Jerome J. Hill, Production Manager. Mail at Special Rates (DMM Section 423, 12 only) N/A

Distribution: To be distributed in accordance with DA Form 12-34-C-R, for TB-43-serie

Would You Stake Your Life the Condition of Your Equipment?

