

Issue 391

PS

June 1985

THE PREVENTIVE MAINTENANCE MONTHLY

HOW'S YOUR
STE/ICE
WORKING?

SOMETHING'S WRONG!
IT KEEPS READING
OUT WOW!

How to test with the BEST!
(See page 2)

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

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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

MSG Half-Mast
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Lexington, KY
40511-5101

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HOTLINE Help

If you've got a hot maintenance problem, call these AUTOVON or commercial numbers for help.

First, touch base with your MAIT, DSU or local Logistic Assistance Office before you dial, tho. They're your first line of help.



* Tanks, small arms, missile guidance/control systems for LCSS, ground and air TOW, Dragon, LANCE, Shillelagh

AUTOVON 694-6582
COMM 205-235-6582

* Aircraft engines

AUTOVON 861-2651
COMM 512-939-2651

* Cat 1 EIR (Aircraft) duty hours 693-3261)

AUTOVON 693-2066
COMM 314-263-2066

* M113 FOV (incl Vulcan, Chaparral), M2/M3 Bradley

AUTOVON 829-3100
COMM 214-838-3147

* Power generation eqpt, wheeled vehicles, brake problems, Redeye, topo eqpt

AUTOVON 790-2129
COMM 801-833-2129

* All howitzers, M578, FAAR, FADAC, ground guidance and shop/test eqpt for I-HAWK and Nike-Hercules

AUTOVON 238-7693
COMM 717-263-7693

* Commo/Electronics (Sacramento)

AUTOVON 839-2839
COMM 916-388-2839

* Commo/Electronics (Tobyhanna)

AUTOVON 795-7900
COMM 717-894-7900

* Commo/Electronics (Ft Monmouth-CECOM)

AUTOVON 992-5300
COMM 201-532-5300

* Camouflage

AUTOVON 354-2654
COMM 703-664-2654

* Supply, Maintenance policy guidance for AR's 750-1, 710-2, 735-5, 735-11, 700-131 and 710-28

AUTOVON 977-6842
COMM 717-782-6842

* Fuels/lubes

AUTOVON 354-4325/3576/4594
COMM 703-664-4325/3576/4594

* Substitute NSN's, part number cross reference to NSN, item ID, price questions and AMDF code problems (MIRAC)

AUTOVON 977-7431
COMM 717-782-7431

* Personnel heaters (TACOM)

AUTOVON 786-7417/7745
COMM 313-574-7417/7745

* Aircraft Vibrex balancing kit

AUTOVON 693-3312
COMM 314-263-3312

* Defense Construction Supply Center (for ROD's)

AUTOVON 850-4275/2089
COMM 614-238-4275/2089

(For non-NSN requisitions)

AUTOVON 850-2730/2841
COMM 614-238-2730/2841

* STE/ICE (TACOM)

AUTOVON 786-8850/8851
COMM 313-574-8850/8851
FTS 973-8850/8851

* Warranty (TACOM)

AUTOVON 786-7889
COMMS 313-574-7889
FTS 973-7889

* Food service equipment, individual equipment (clothing), aerial delivery, tentage and shelter (NATICK)

AUTOVON 256-5341
COMM 617-651-5341

Bonnie

STE/ICE...

Test with the Best!

Hello!

I'm Simplified Test Equipment for Internal Combustion Engines (STE/ICE), but you can say it "STEE ICE" for short. I'm made up of a VTM (Vehicle Test Meter) and a bunch of cables, probes and adapters.

When it comes to troubleshooting, I can do most anything other TMDE can do, and I can do many things they can't. But for now, let's stick to one thing I can test for you that's common to all engines—the starting system.

STE/ICE KNOWS WHAT'S NEEDED WHEN IT COMES TO TESTING!

First, make sure—

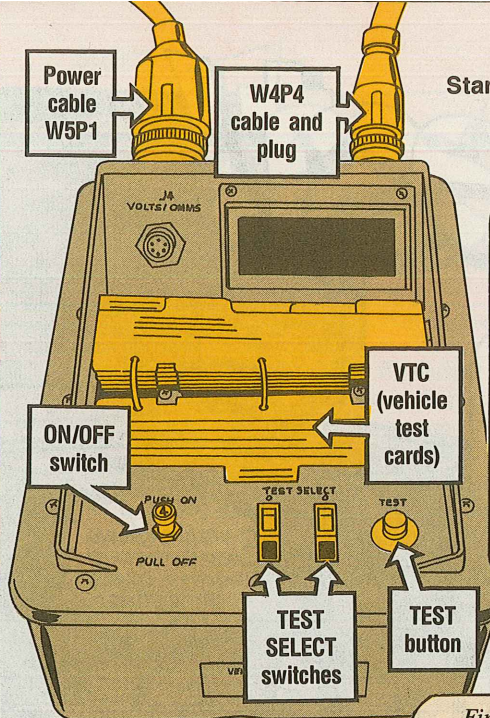
- The electrolyte (battery acid) is at proper level.
- The battery has been charged.
- The battery terminals and cables are clean and making good contact.
- VTM plugs and connectors make snug contacts.
- VTM's ON-OFF switch is in the OFF position when you are making electrical hookups.

TM 9-4910-571-12&P
Oct 84

STE/ICE

PS MORE

Starting System Test

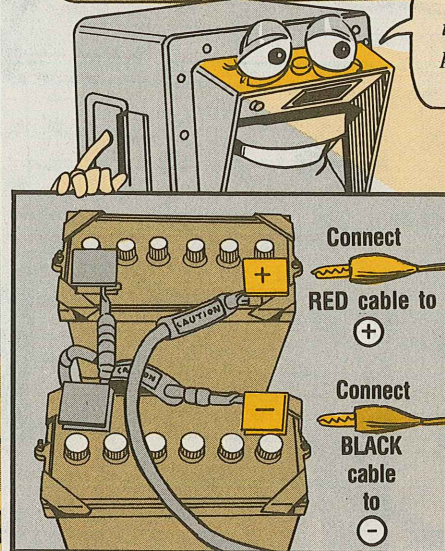


Troubleshooting starting problems in either gasoline or diesel/multifuel engines always starts with the batteries—or a single battery in some cases.

While troubleshooting, you should check the batteries, battery cables and starter—the starting system. Bad batteries may be only part of the problem, but you have to straighten out that part of the problem before you can troubleshoot the rest of the system.

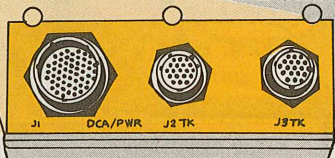
We'll run this test on an M151-series 1/4 ton truck, just as an example.

First, with the ON-OFF switch pulled to the OFF position, hook up my W5P1 power cable plug to the J1 DCA/PWR connector.

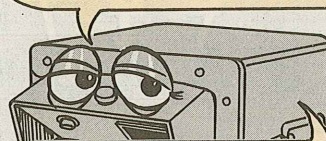


Then, put my positive (red) clip to the positive (+) battery post and put my negative (black) clip to the negative (-) battery post.

I need a 12-volt or 24-volt power source to operate. This can be the batteries in the equipment we're testing or another battery. It makes no difference.



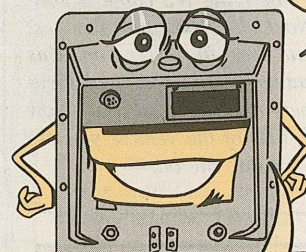
First, push the power switch to ON and watch for 8888 and then ---- Dial the TEST SELECT switches to 66 and then press the TEST button only for a moment. If my read-out display flashes up the number 66, you know I'm ready.



Next, dial 99 on the TEST SELECT switches and press the TEST button. I will flash a bunch of numbers, but don't let that bother you as long as my last word is PASS.



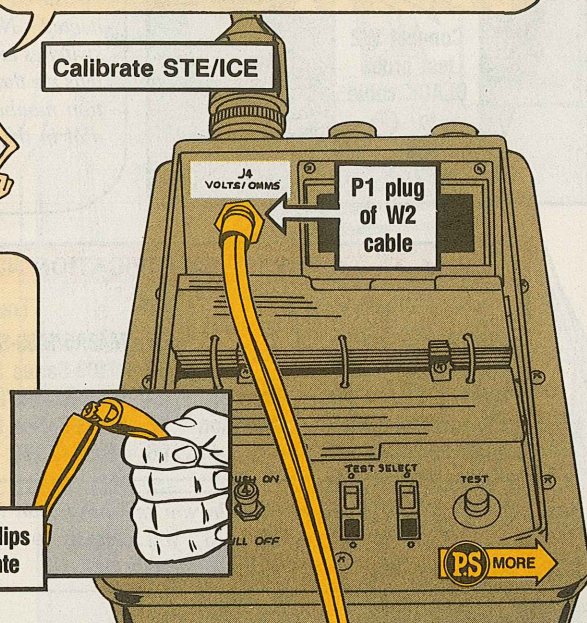
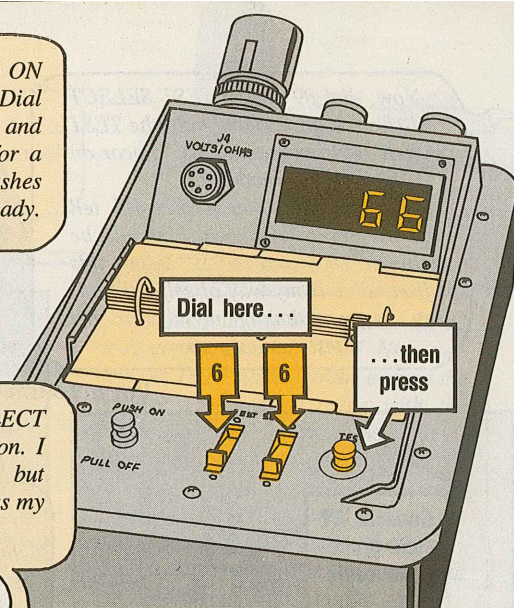
Now dial 67 on TEST SELECT switches. Press the TEST button. I'll let you know if the batteries I'm hooked to have enough power to let me do my troubleshooting job.



Hook the P1 plug of the W2 test probe cable to the J4 VOLTS/OHMS connector. Connect the red and black clip leads of the cable together.

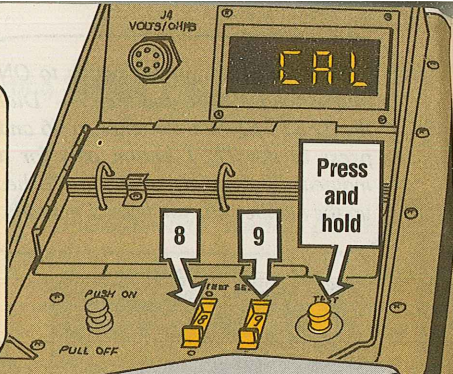
Connect clips to calibrate

Calibrate STE/ICE

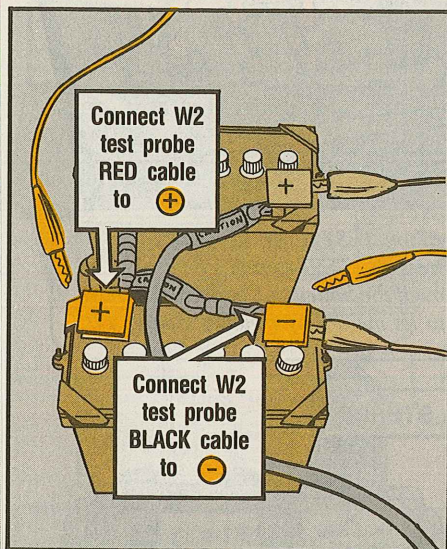


Now, dial 89 on the TEST SELECT switches, and press and hold the TEST button until the letters CAL appear on the read-out.

Let go of the button and I'll tell you the offset value, which should be between -6.8 and +6.8. Using this offset value is my way of self-calibrating or conditioning myself for the tests coming up.



I'm a Voltmeter



Hook up my W2 test probe cable's red clip to the battery's positive (+) terminal. The cable's black clip goes to the battery's negative (-) terminal.

Dial number 89 into the TEST SELECT switches. Then push my TEST button for a moment. My readout display will show the voltage being measured where the W2 cable is connected. Now dial 60 into the test switches and press the test button. This tells me that the VID (vehicle identification number) is coming up next. Now dial in the VID of the vehicle you are using me on.

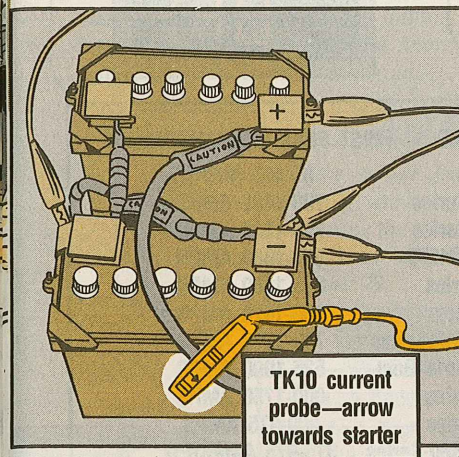
VEHICLE IDENTIFICATION NUMBER

Wheel Vehicle	VID	Track Vehicle	VID
M151A2 1/4-ton	01	M48A5/M60-Series Tank	04
M880-Series 1 1/4-ton	05	M109-Series SP Howitzer	11
M561 1 1/4-ton (Gama Goat)	09	M110A2/M578VEH	10
M44A2/M39A2-Series 2 1/2/5-ton	02	M113-Series Carrier	03
M809-Series 5-ton	06	M520 GOER	08

If the vehicle you're working on is not on this list, you cannot do the starting system test.

JUN 85

Then push the TEST button for a moment. The VID that you entered will appear on my display.

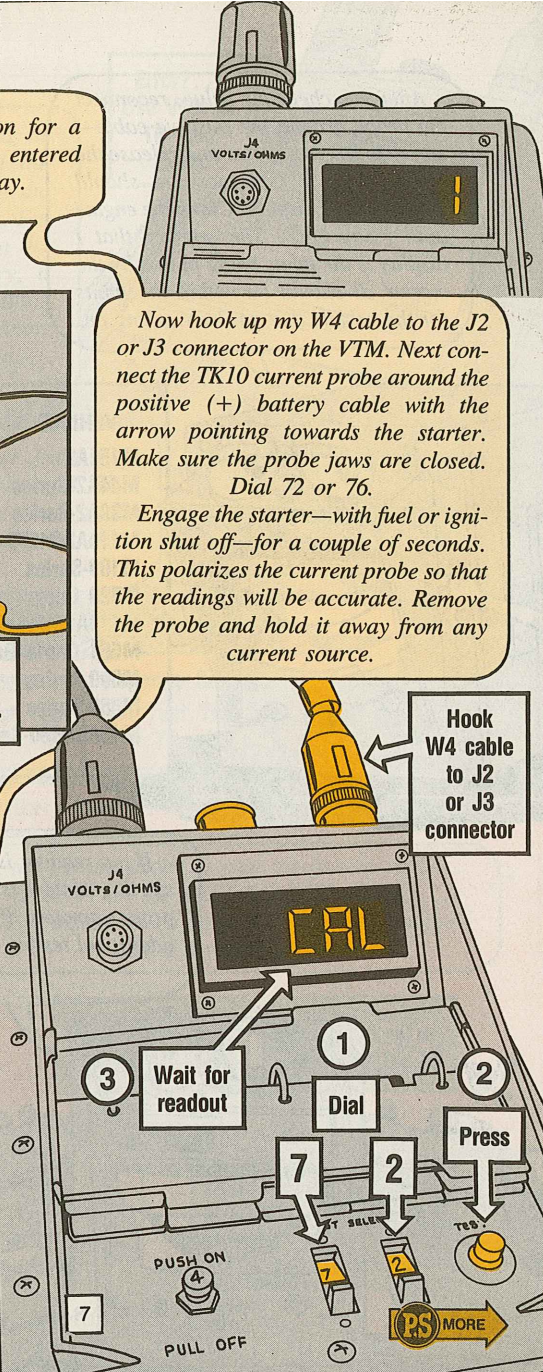


Now hook up my W4 cable to the J2 or J3 connector on the VTM. Next connect the TK10 current probe around the positive (+) battery cable with the arrow pointing towards the starter. Make sure the probe jaws are closed.

Dial 72 or 76.

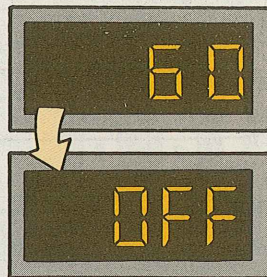
Engage the starter—with fuel or ignition shut off—for a couple of seconds. This polarizes the current probe so that the readings will be accurate. Remove the probe and hold it away from any current source.

Press and hold the test button until CAL appears on my readout. This performs an internal offset test and gets rid of any internal electrical error. This is like zeroing a multimeter. Make sure the offset value is within -225 to +225.



JUN 85

After you check the value, reconnect the probe around the positive cable—arrow to starter—press and release the test button. A GO message should appear on my display. Crank the engine until I say OFF. The number that I display is the amps being pulled by the starter. It should be within the limits for the vehicle that you're working on.



VEHICLE FIRST PEAK CURRENT VALUE

M151A2	85-150 AMPS
M44A2-Series	700-1400 AMPS
M39A2-Series	700-1400 AMPS
M110A2/M578	875-1680 AMPS
M109-Series	875-1680 AMPS
M520 Goer	900-1475 AMPS
M113A1/A2-Series	700-1275 AMPS
M561 Gama Goat	525-1000 AMPS
M809-Series	800-1750 AMPS
M880-Series	400-975 AMPS
M48A5/M60-Series	375-975 AMPS/PR

If my readout is between these limits, it means the starting system is OK and the starter is pulling the proper amount. If the reading is outside these limits, additional testing to check circuit resistance will find the problem.

YOU CAN TEST MY CHARGE ANYTIME !

I WANT MY VTM !

And More...

Any time you're troubleshooting or running a readiness check and the readings are outside the limits for the vehicle as noted on the test cards, I'm telling you there's a problem—in the starting system, with the battery, a battery cable or the starter. By following the GO-chain, I'll let you know which ones are causing you trouble.

Error?...
Use VTM or
TM test
cards

If I'm using the power from the battery you're testing, use tests 72, 73, 74 and 75. If I'm using the power from a separate battery, use tests 76, 77, 78 and 79.

Same Battery
Test Test Test Test
72 73 74 75

Separate Battery
Test Test Test Test
76 77 78 79

Battery Charge Check

Leave the current probe around the battery cable. Dial 73 or 77 on the TEST SELECT switches... Press TEST button. When I say GO, crank your engine until I say OFF.

7 3
or
7 7



60

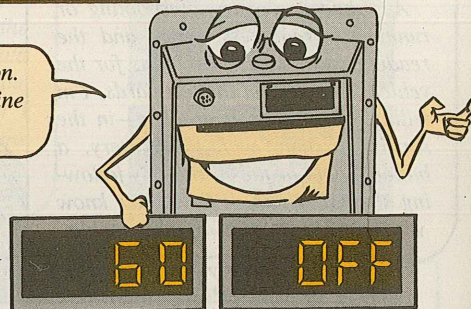
OFF

50

As long as the readout is below the value listed in the STE/ICE battery test cards, you know the battery series pair in your 1/4-tonner not only has a good charge but it will hold the charge. If the reading is above these values, the batteries are not properly charged.

Battery Cable Check

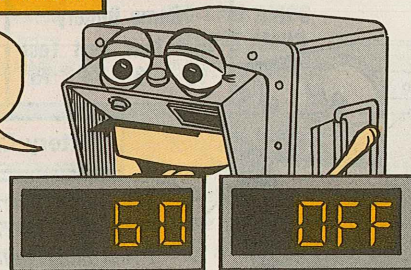
Dial 74 or 78... Press TEST button.
When I say GO, crank your engine
until I say OFF.



I'll tell you the starter circuit resistance.
With the 1/4-ton, if the reading
is between 125-300 (milli-ohms), the
starter and connectors are OK.

Starter Check

Dial 75 or 79... Press TEST button.
When I say GO, crank engine until
I say OFF.



I'll tell you the milli-ohms value for
resistance change.
Again, with the 1/4-ton, if the read-
ing is below 70, the battery is good.



MY NUMBERS
LOOK REAL GOOD
WITH STE/ICE!

(PS) END

Lead-Acid Batteries...

Grease II



How much grease do you use on battery posts and where do you put it?

Para 3-84 of TB 43-0001-39-6 (Jul 83) says to put a light coat of GAA on the whole post—top, side and base. PS 381, Page 4, passed that word.

That's wrong! The Tank-Automotive Command now says to put the grease on **after** you put the terminal clamp on the post. Then cover the clamp—top, sides and bottom—with a light coat of GAA. Make sure grease gets up under the clamp. Cover any exposed cable too.

A light coat means not more than 1/8-in thick.

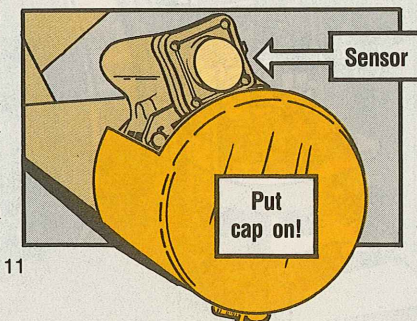
New Sensor, New Muzzle Cap

That improved muzzle reference sensor (collimator) on your main gun tube takes a new muzzle cap.

The old cap won't fit because the new sensor is larger and won't let the cap fit close enough to seal the tube.

So-o-o-o, latch onto muzzle cap, NSN 1015-01-138-4001. It has a notch cut in it to fit around the sensor.

JUN 85



Checking Engine Power

THIS DOESN'T
MAKE ANY
SENSE!

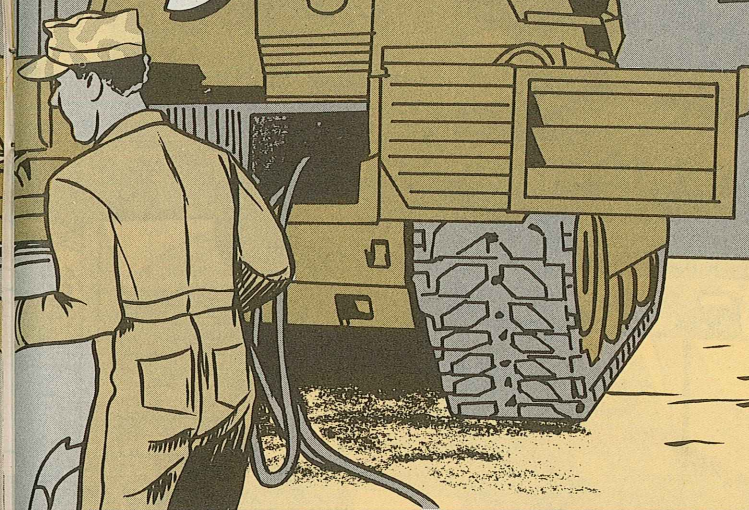
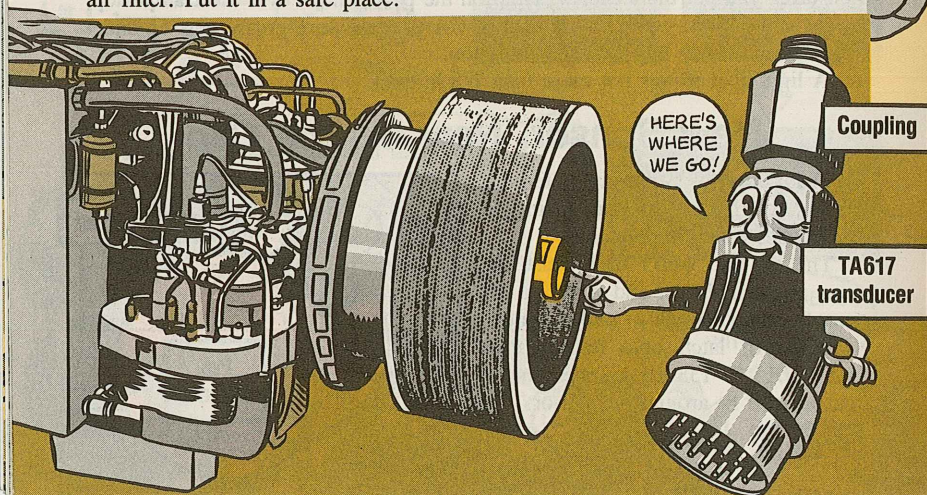
YES IT DOES!
BUT ONLY WHEN
THE PACK IS IN
THE HULL!

As you mechs know, the STE-M1/FVS engine power check instructions are written for use with the pack in the hull.

So-o-o-o, what do you do when the pack is ground-hopped, and you want to pull a power check? Do this:

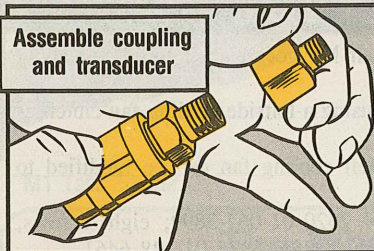
Follow instructions for the engine power check (test 1506), starting on Page 19-23 of TM 9-2350-255-20-1-2-2. When the STE-M1/FVS SETCOM displays this message, "Connect TA617 PER REF 150613," do this:

- Take off the air filter restriction indicator in the center of the ground-hop air filter. Put it in a safe place.

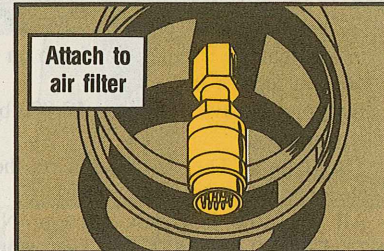


- Use the 1/4-in to 1/8-in pipe reducer coupling (transducer kit item 19) to attach the TA617 transducer to the nipple in the center of the air filter.

Assemble coupling
and transducer



Attach to
air filter



- Hold the service brake cable with a metal rod or screwdriver to engage the brakes in the transmission, when the SETCOM displays "set service and parking brake."

- Push the SETCOM's "GO" button. The rest of the SETCOM and TM instructions will make sense.

Remember—if you get a SETCOM message saying, "Faulty air cleaner/inlet," there's a filter problem in the ground-hop kit.

Don't forget to replace the indicator on the ground-hop air cleaner when the engine power check is done.

A Friend in the Clutch

THE **RIGHTSIDE** COOLING FAN CLUTCH IS SHOT. NOW WE'LL HAVE TO GET A **BRAND NEW** ONE!

YOU CAN USE A **LEFTSIDE** CLUTCH AS A REPLACEMENT AND SAVE A LOT OF MONEY!

If the rightside cooling fan clutch on your M1 goes bad, it could cost about \$3,400 to replace it.

But you can save more than \$2,000 by using a leftside cooling fan clutch as a replacement.

That's right. The clutch used on the left cooling fan can be modified to replace an ailing rightside clutch.

All you need is clutch, friction, NSN 2520-01-067-3899; eight screws, NSN 5305-00-071-2512; and cap, protective, NSN 5935-01-138-6461.

Install the clutch using the instructions on Page 5-139 of TM 9-2350-255-20-1-3-3, except at Step 4 for the smoke generator hose. That doesn't apply to the rightside clutch.

Use the eight screws to mount the clutch. The protective cap goes on the receptacle for the clutch power cable, which you don't use.

Smear a little RTV sealer, NSN 8040-00-877-9872, on the three unused holes in the angle drive unit housing that were used to mount the original fan clutch.

If you need more info, contact your local TACOM Logistic Assistance Representative.

M1 Tank Engine...

The Whole 9 Yards

When you send an engine back for warranty action, make sure you include all the original components.

If you cannibalize or switch any of the parts, you'll torpedo the whole operation. The manufacturer may dispute the claim because of missing or switched parts. Instead of getting warranty reimbursement, the Army could end up paying the manufacturer for the repair and replacement cost of missing parts.

So, make sure you send the complete engine/module when you make a warranty claim.

Sealing for Safety



HM-M-M-M
YOU LOOK A LITTLE
LIGHT FOR A
HEAVYWEIGHT,
BUT THE SCALE
NEVER LIES!

NOW
CAN I
GET ME
SOME
FIGHTIN'
ROOM?



Seal damaged
or broken...?

...replace it!

The only sure way of knowing that you have a full cylinder is by weighing it. If the extinguisher's weight loss is more than 10 percent of the difference between the full and empty weights stamped on the head of the cylinder, it needs recharging. That's still a support job.

If the weight checks out right, and the shrink tubing is missing or broken, replace it with NSN 5970-00-822-2775.

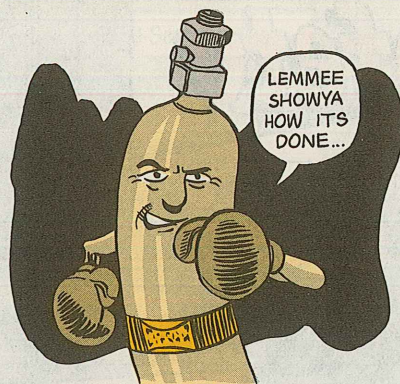
This cylinder must weigh at least 35 1/2 pounds or it goes back to DSU for recharging



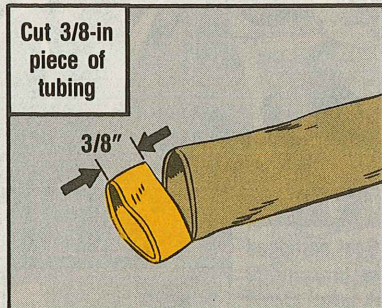
Broken or missing plastic safety release indicators on fixed fire extinguishers make your M48A5 and M60-series tanks NMC.

But don't fret, mechs. You can get your extinguishers ready for action with a little PM.

Just remember this: The extinguisher's plastic safety release indicator can be sneaky. Even when it's in place, there's no guarantee you have a full cylinder. It just shows you that the pressure relief mechanism hasn't been fired.

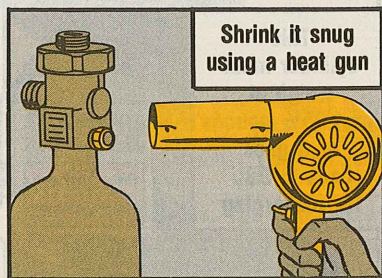


Cut a piece of tubing 3/8-in long. Make sure the tubing is cut square.

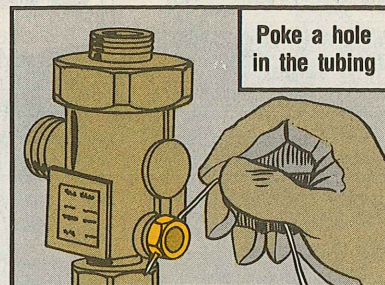


- Put the tubing over the hexagon vent nut, and push it tightly against the valve.

- Shrink the tubing with a heat gun, NSN 4940-00-561-1002, until it's tight around the vent nut.



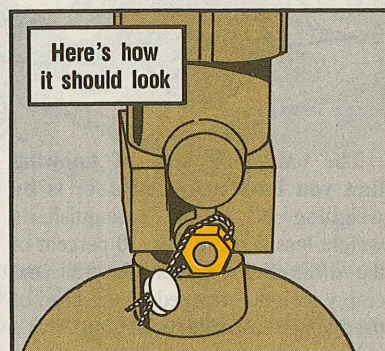
- Heat the end of a piece of wire using a lighter or match.



- Poke a hole in the tubing with the hot wire. Be sure the tubing hole lines up with a hole in the vent nut.

- Seal the vent nut and shrink tubing with a lead seal and wire, NSN 5340-00-902-0426. Run the wire thru the shrink tubing and vent nut holes, across the top of the nut and tubing, and back thru the seal.

- Crimp the lead seal tightly around the wire with a pair of pliers. Leave about 1/4 to 3/8 inch of wire on the seal and trim off the rest.



The fire extinguisher is good-to-go now, and the words NOT READY won't describe your tank.

Brake Disconnect Can Disconnect



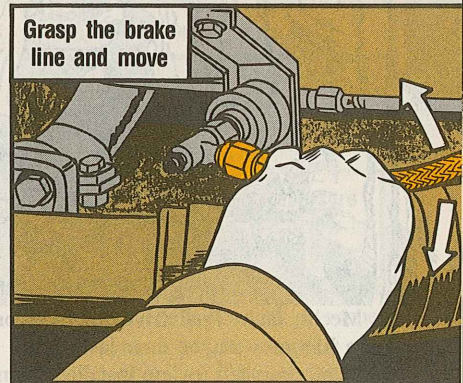
If your M48A5 or M60-series tank or AVLB chassis is equipped with a hydraulic brake line quick disconnect, check it! If it's not seated fully, you could find yourself with no brakes!

To connect the quick disconnect, you push it on and twist the collar clockwise until it stops. Then lift the collar and twist some more. When you let go, the collar should snap back into place.

If you don't do the lift-and-twist bit, the disconnect can work loose.

You'll have brakes the first few times you press on the brake pedal. Sooner or later, tho, the disconnect works loose...and no brakes!

To double-check that the disconnect is locked properly, grasp the brake line and move it back and forth. If the disconnect backs off, twist-and-lift and make sure the collar drops.



Quick-Disconnect Danger!



Mechs, faulty final drive quick-disconnect rings can give tank crews the ride of a lifetime—maybe their last!

If the rings fail, or are installed wrong, the crews can be stuck in an out-of-control vehicle.

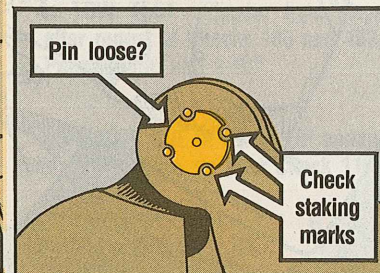
Help save their necks by double-checking the quick-disconnect rings right now. All rings, including new ones, need eyeballing. If the rings don't pass the inspection, hold the tank until you make the fix.

HANG ON,
THERE'S AN
MOBBAI COMING
SOON!

Take the rings off and clean them real good so you can make the inspection. Clean the tapped hole so you can get a close look.

THREADS DAMAGED? The threads in the tapped hole must not be cross-threaded or stripped. If they are damaged, replace the ring.

PIN LOOSE? If the pin's loose, replace the ring.



SEE CRACKS? If you find any cracks, replace the ring.

PIVOT BOSSES BENT? If the bosses are bent, replace the ring.

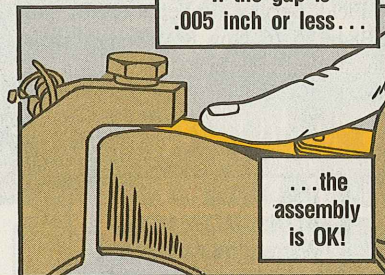
STAKING MARKS IN PLACE? The marks must be on the brass and deep and wide enough to move brass over the pin.

If the stakes are on the pin, restake on the brass in four places.

If the chamfer on the brass is so large that metal won't mushroom over the pin, replace the ring.

GAP .005 INCH OR LESS? With the ring closed and the screw turned finger-tight, the gap of the stop must be .005 inch or less for the ring to be serviceable. Metal-to-metal contact is preferred.

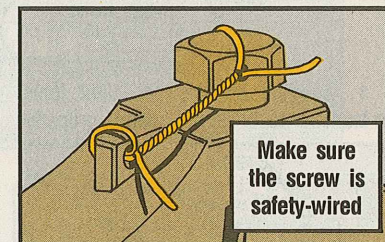
If the gap is
.005 inch or less...



SCREW DAMAGED? If there's any damage to the screw, replace it with NSN 5305-01-042-4436.

TIGHTENED UP? To install the screw, lightly tighten with a ratchet, then torque to 10-20 lb-ft.

SAFETY WIRED? Safety-wire the screw to the ring.



For more details on quick-disconnect ring inspection and repair, get a copy of TB 43-0001-39-5 (Apr 83), Pages 2-5 thru 2-13. The info is also in Field Service Bulletin No. 31 (Feb 81). Contact your local TACOM Logistic Assistance Representative for copies.

TOW Dead line PMCS

If the TOW missile subsystem on your Bradley is down, your Bradley is NOT READY/AVAILABLE.

Field Service Bulletin (FSB) No. BB84-125 (6 Nov 84) spells out the deadlining criteria.

YOU CAN GET THE FSB FROM...

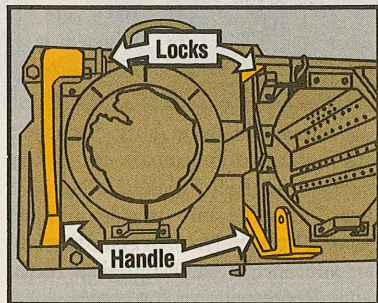
USA TACOM
ATTN: AMCPM-LCV-LF
Warren, MI 48397-5000

The FSB TOW checks replace Pages 2-43, 2-105, 2-106 and 2-107 of Draft TM 9-2350-252-10-2 (Aug 83) and will be included in the final version of TM 9-2350-252-10-2.

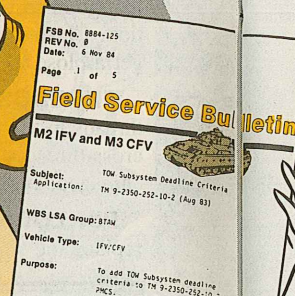
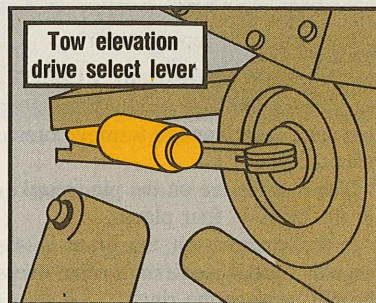
Following are conditions which make the Bradley and the TOW system NOT READY/AVAILABLE.

CHECKS NOTED ARE IN THE FSB!

1. Loading handles and their locks in launcher tubes do not operate properly.



2. TOW launcher won't raise in either manual or power mode (Check 107.1).

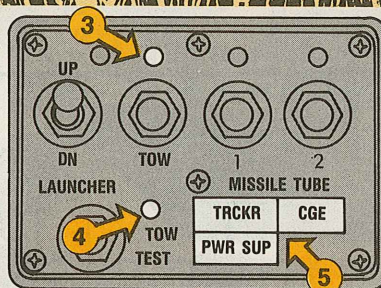


WE'RE RARIN' TO GO 'CAUSE WE GOT AN OPERATIONAL TOW!

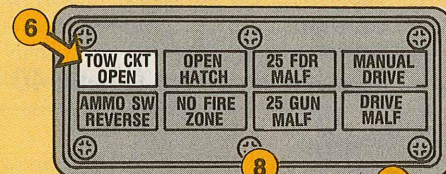
3. TOW indicator light does not come on and stay on (Check 108).

4. TOW TEST indicator light stays on after repeat of Checks 108 and 109, on Pages 2-106 and 2-107.

5. TRCKR, CGE or PWR SUP annunciator lights come on after Check 110.



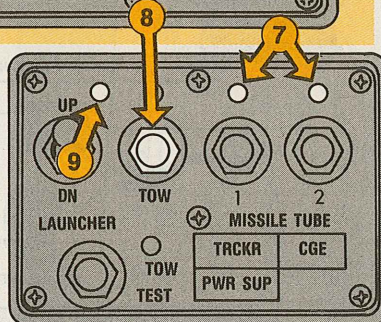
6. TOW CKT OPEN annunciator light comes on after Check 111.



7. MISSILE TUBE 1 and/or MISSILE TUBE 2 indicator lights do not flash when tube buttons are pressed (Check 114).

8. Indicator light does not go off when TOW button is pressed (Check 115).

9. Launcher does not bang against side of turret, or LAUNCHER UP indicator light does not come on (Check 116).



One Way Commo?



Dear Editor,

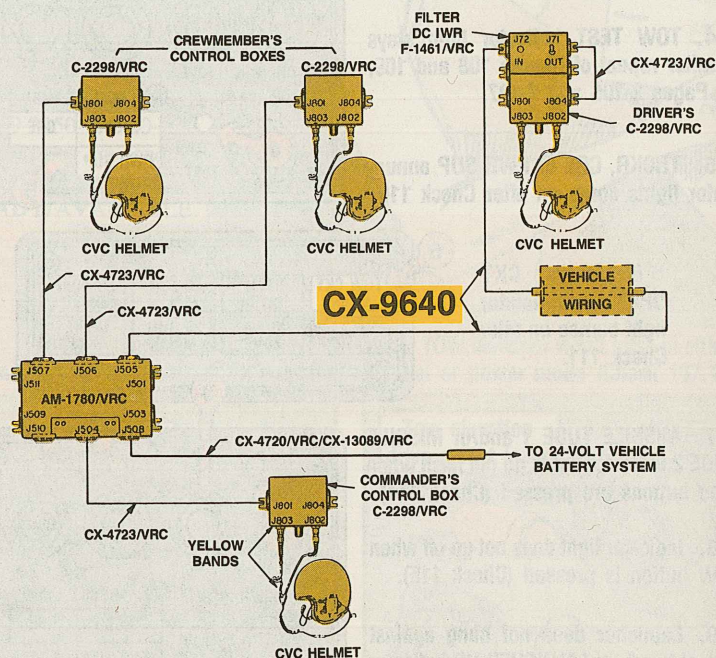
A TC in one of my unit's howitzers was complaining that while he could talk to his driver, the driver couldn't talk to him.

I checked his cabling. The problem was a CX-7060 cable assembly between the driver's control box and the AM-1780 audio frequency amplifier.

In most intercom setups, this is OK. But Page 2-9 of C3 to TM 11-5830-340-12 added the wiring for an M109. For this system, you have to run a CX-9640 cable between the two commo boxes.

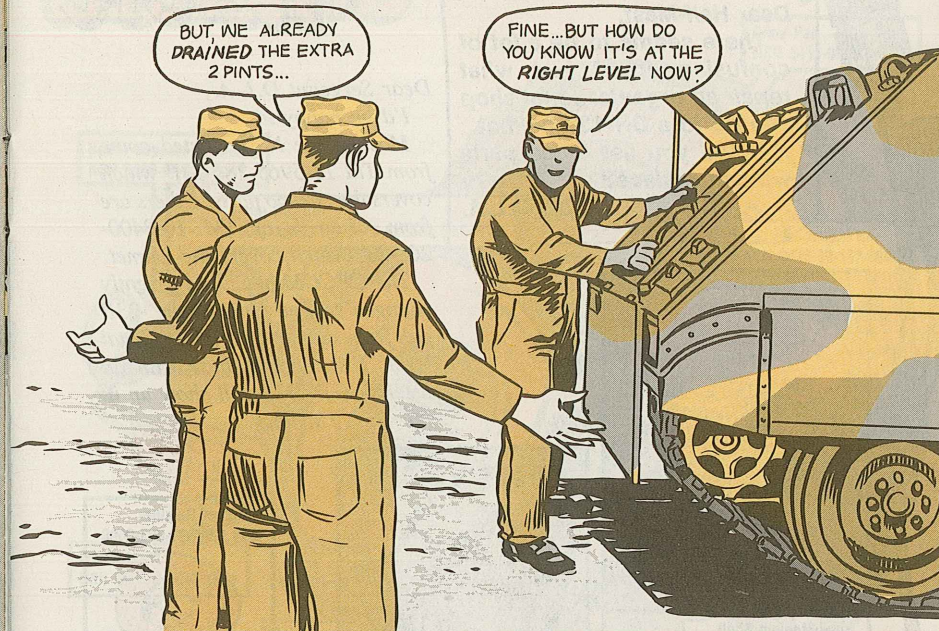
I think you should pass this along to other artillery units. They may not have gotten this word yet.

SGT J.M. Archer, Jr.
APO New York
09165



(Editor's Note—Sound advice, Sergeant. Thanks.)

Final Drive Oil Change



BUT WE ALREADY
DRAINED THE EXTRA
2 PINTS...

FINE...BUT HOW DO
YOU KNOW IT'S AT THE
RIGHT LEVEL NOW?

Nine pints of oil in each final drive on your M113-series vehicle (except M548's, M730's, M1015's) are too much. Seven pints are just right.

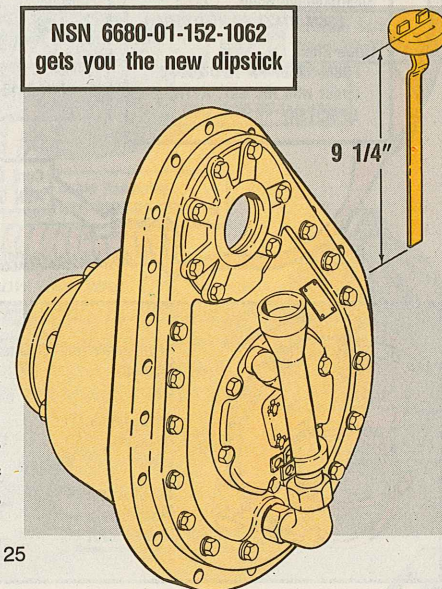
Nine pints cause pressure to build up in the case, causing oil to slop out around the fill tube.

To cut out the mess and waste, you need to drain two pints of oil from each final drive. But, before you can do that, you need new dipsticks.

The new dipstick must be used after the oil is drained to get a true oil level reading. The level is between "ADD" and "FULL" on the dipstick.

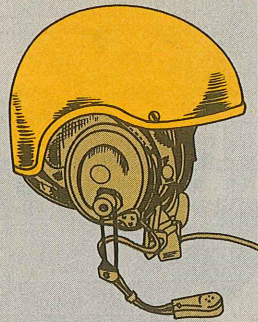
The right dipstick is 9-1/4 inches long from the end of the stick to the top of the cap. Don't include the tabs when you measure.

NSN 6680-01-152-1062
gets you the new dipstick



Dear Half-Mast,
There seems to be a lot of confusion about just what repair an organizational shop can do to a DH-132 helmet. Could you list those parts we can replace?

SSG D.L.A.



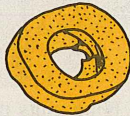
Shell/Medium Shell
FSCM 97427 PN 72-D-2504-1

Large Shell
FSCM 97427 PN 72-D-2504-2
(order with RIC S9T, ATTN: DPSC-TSK)



Velcro Pad Kit
NSN 8415-00-163-9051

Receiver Retainer
NSN 5965-01-093-0590

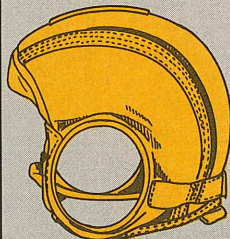


Filler Pad Right *
NSN 5965-01-063-1910



Filler Pad Left *
NSN 5820-01-063-1909

Cord Assembly *
NSN 5995-00-302-7521



Small Inner Helmet Liner NSN 8415-00-134-9396
Medium NSN 8415-00-134-9397
Large NSN 8415-00-134-9398

Small Center Pad NSN 8415-00-163-9040
Medium NSN 8415-00-163-9042
Large NSN 8415-00-163-9044

Small Side Pad NSN 8415-00-163-9041
Medium NSN 8415-00-163-9043
Large NSN 8415-00-163-9045

Here're

Dear Sergeant D.L.A.,
I'd be happy to.

Most of the NSN's listed come from TM 11-5965-286-23P which covers the commo parts. Others are from Chap 5 of TM 10-8400-201-23, which covers the helmet.

The CECOM headshed recently changed several parts in the -23P pub from support to organizational level. I've marked these with an asterisk (*). They will show up in the -23P TM later.

the Fixin's

Boom Support Assembly
NSN 5965-00-135-0547

Boom Mount
FSCM 80063 PN SC-B-883830 (RIC B16)

Microphone
NSN 5965-00-937-1851

Filler Pad *
NSN 5820-01-076-8027



Chin Strap Pad
NSN 8415-00-163-9048

Chin Strap
NSN 8415-00-163-9052

Brow Pad
NSN 8415-00-163-9046

Tab Attachment Kit
NSN 8415-00-163-9049

Earphone Cushion
NSN 5965-00-135-0505

Machine Screw *
NSN 5305-00-224-0783

Switch Lever *
NSN 5930-00-114-4362

Cable Assembly
NSN 5995-01-100-6255

And now that your CVC is one piece, keep it that way. You can get a waterproof protective bag for the helmet with NSN 8415-00-782-2989. It's OK'd by CTA 50-900.



Half-Mast

Clothing Clip
NSN 5965-00-135-0545

Pubs

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 5-2410-214-20P Feb Caterpillar D7E tractor
TM 5-3810-303-24 Aug 84 40-ton crane
TM 5-4520-251-14 Oct 84 Portable duct-type heater, Model PH-400-G
TM 5-4610-215-10-HR Dec 84 Water purification unit, 600 GPM trailer mtd, ROWPU 600-1
TM 5-4930-230-13-HR Jan Mil design tank and pump unit
TM 9-1010-205-10 Feb 40-MM grenade launcher, M79
TM 9-1095-205-20-2 Sep 84 M128 ground veh mine dispenser
TM 9-1265-201-10 Oct 84 MILES for Vulcan M163A1
TM 9-1265-207-10 Oct 84 MILES for Vulcan
TM 9-1265-208-10 Oct 84 MILES for Chaparral
TM 9-1265-209-10-HR Oct 84 MILES for Stinger
TM 9-1265-375-10 Sep 84 MILES for M2/M3 Bradleys

TM 9-1270-222-10 Oct 84 MILES for OH-58
TM 9-1270-223-10 Oct 84 MILES for AH-1S
TM 9-1270-224-10 Oct 84 MILES for UH-1H
TM 9-1270-224-10-HR Oct 84 MILES for UH-1H
TM 9-1410-485-12 C1, C2 Apr Lance
TM 9-1425-475-20 Oct 84 Launcher M272, guided missile AGM-114A, (Hellfire)
TM 9-1450-646-20P Jan MLRS carrier
TM 9-2300-422-23&P Feb AOAP Sampling Valves for nonaeronautical vehicles
TM 9-2350-252-10-1 Aug 84 M2/M3 Bradley
TM 9-2350-252-10-2 Jan M2/M3 Bradley
TM 9-2350-252-10-HR Aug 84 M2/M3 Bradley
TM 9-2350-252-20-1 thru 5 Jan M2/M3 Bradley
TM 9-2350-252-20-2-1 Feb M2/M3 Bradley
TM 9-2350-252-20-2-3 Feb M2/M3 Bradley
TM 9-2350-252-20P-1 & 2 Jan/ Feb M2/M3 Bradley
TM 9-2350-261-20P Jan M113A2 FOV

TM 9-6625-647-14&P Oct 84 MLRS
TM 10-5410-225-13 Nov 84 (MUST) shelter, Model MUST-BFG-EPG
TM 55-1740-203-13&P Oct 84 Operator's AVUM and AVIM manual for transporter, airmobile, Model D761, NSN 1740-01-133-5671
TM 55-2305-001-20-1 & 2 Jan LACV-30
TM 55-1510-204-23P-3 Feb AVUM and AVIM parts and tool list, OV-1B, OV-1C, OV-1D and RV-1D
TM 55-1520-237-23P-1 & 2 Feb AVUM and AVIM parts and tool list UH-60A
TM 55-1520-240-23P-1 thru 3 Mar AVUM and AVIM parts and tool list CH-47D
TM 55-1905-220-14-10 Jan Landing craft utility (LCU)

Miscellaneous

TB 55-1510-201-20-16 Jan Insp of def MS21251 brass turnbuckles on U-8F
TB 55-1520-217-20-24 Jan One-time insp of main rotor blades CH-54A

AUDIO-VISUAL STUFF

Available at battalion or post Learning Center

Films, TV Tapes
TF (VT) 44-6311 STINGER Past, Present, Future (16MM Film)

TEC Lessons
010-071-6674-F Carrier-mounted 4.2-in mortar safety checks
030-051-6430-F High bank launch and retrieval of bridge erection

boat using M812 transporter
300-081-4094-F Disinfecting water for drinking, Part I (Lyster bag, canteen)
300-081-4096-F Disinfecting water for drinking, Part III (Canteen)
603-551-9552-F Replace rivnuts on aircraft

603-551-9554-F Replace DZUS and CAMLOC fasteners
612-051-9665-E (REV) Use of the hydraulic test stand
612-051-9684-E Troubleshooting the 645M scooploader charging system
931-031-0008-F Operation of the IM 174/PD Radiacmeter

Maintenance Advisories

AMCCOM MA 85-10—M51 Shelter System incident, AMSMC-MAR-C 181800Z Mar 85.
AMCCOM MA 85-11—Storage of CB Protective Masks, AMSMC-MAR-C 011830Z Apr 85.
TACOM SOU—Operational, M89A1, M48A5/M60-series tanks and AVLB's, M728 and SGT YORK chassis (safety hazard because of loose sprocket hub mounting hardware which could cause loss of hub, AMSTA-MCA 222300Z Mar 85.
TROSCOM MA—6HP Military

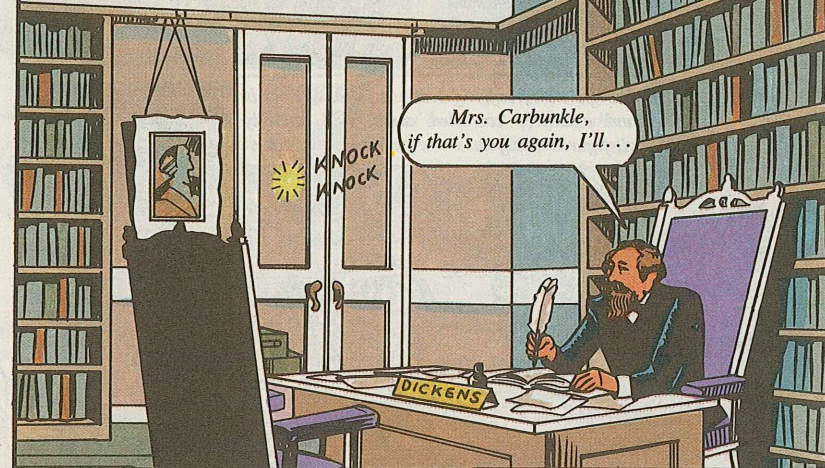
Standard Engines (MSES), NSN 2805-00-776-0483 (Model 1), NSN 2805-00-068-7512 (Model 2), AMSTR-MES 191500Z Mar 85.
TROSCOM MA—Unauthorized Use of Cover, Load Bank, AMSTR-MES 221700Z Mar 85.
TROSCOM MA—One-time Inspection of Generator Set, AMSTR-MES 221715Z Mar 85.
TROSCOM SOU-85-01—Advisory, 18,000 BTUH Vertical Compact Air Conditioners (safety hazard during use and transport), AMSTR-MES 111400Z Mar 85.

TROSCOM SOU-85-02—Operational, 5/10KW DED Generator Sets, NSN 6115-00-465-1044 (safety hazard when placed in the 120/240 volt single phase mode), AMSTR-MES 251800Z Mar 85.
AMCCOM MA SIL 1-85—Information on Supply and Maintenance of missile materiel, AMSMI-SS 1 Mar 85.
If you need a maintenance advisory, contact your direct support unit or your local Logistic Assistance Office (LAO).

Abuse SB-22's and...

You'll have the Dickens to Pay

It was the best of times, it was the worst of times. I had been writing for over an hour when there came a knock at the door...



In a way... It's a tragic tale of abused and neglected SB-22 Switchboards and the price they pay at the hands of man.

Are there spirits in this one?

Yes, quite. Although I wish I could say there were not.

The ghosts of bulging batteries, cracked cords and catseyes, corroded cases, and horribly disfigured designation strips haunt this story.

It sounds grim.

It is... Come travel with me—meet the villains who cause this abuse...

30

Look there. See Private Oliver, twisting and pulling that cord. Soon the wiring inside will break. He's an expert at cord abuse. He never grips the sleeves when plugging and unplugging.

He never seats the plugs carefully, but lets them fly back where they bang on the case and damage themselves, the case, and the catseyes.

Look now. A little finger pressure is all that's needed to insert the plug, but he jams it in with the heel of his hand. See how his rubber cord sleeves have split.

He could still save them by cutting them back and tapering the ends. But he won't! Why, the man never even cleans his plugs. He doesn't realize that even a little dirt can down a delicate SB.

Oh, no! Now he's shoving the operator's cord back into the pack. All he needs to do is wind the cord around, over and through the line pack plugs.

Let us go, good Sir. I can bear to watch no more!

JUN 85

31

Ah, this story is bleak. Sergeant House is a battery abuser. He never inspects the battery case for dents and cracks. He never removes the batteries when the set is not in use. There they sit, bulging, leaking and corroding the poor SB.

He only looks at the batteries when he's not getting power. And then, does he remove the case with care? No! He knows to put his index fingers on the ends of the battery case caps and...

Ah, here we have Specialist Copper, fielding his equipment without a ground.

He even had the plastic case with the ground strap already attached.

...to gently tug and roll the battery case out evenly. He knows, but does he heed? Nay. He jerks it out, springing the battery case contact clips and the spring contacts.

Tragic! Must I see more?

Yes, I'm afraid so.

Look at him now. He's throwing away all four batteries. He doesn't know that the drain on the batteries is different.

All he must do is fasten the strap to a ground. A simple thing for this mortal to do, and yet one that is so life saving.

Now look at him. He has stacked two SB's. The bottom one is grounded, but he has neglected the one on top.

He doesn't care that two of the batteries power the headset phone and two power the operator's board. The batteries in the phone aren't as drained as the ones in the operator's panel. There's life left in both, if he would just switch them. Reversing the case would give him enough power to complete the mission. But no, he throws all four batteries away. Such a shameful waste.

Enough! Let us go on.

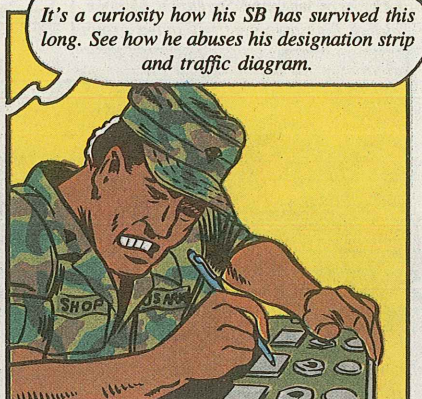
All he needs to do for a good ground is to connect a short piece of ground strap between the GRD binding posts on both switchboards.

Yes, I see you are right. The abuse is great.

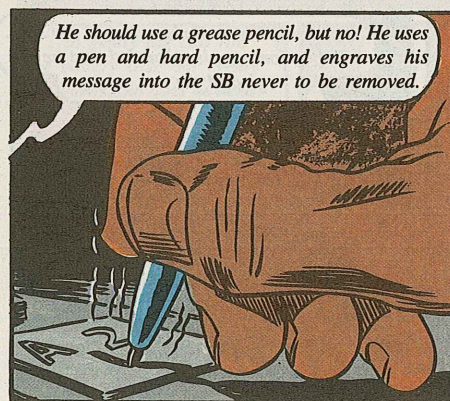
And we're just beginning our journey.



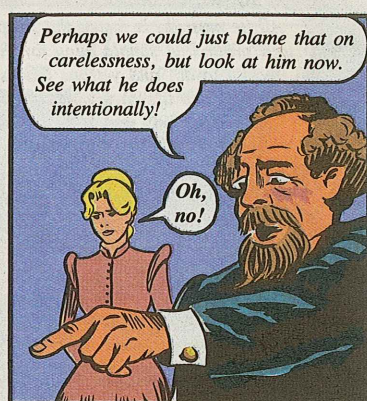
Here's our mutual friend, good old Specialist Shop.



It's a curiosity how his SB has survived this long. See how he abuses his designation strip and traffic diagram.

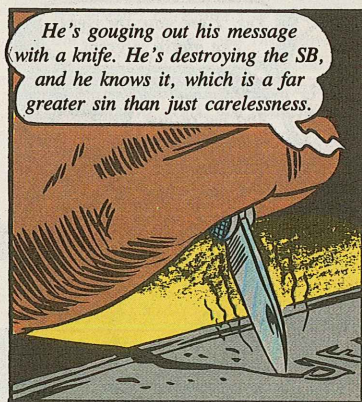


He should use a grease pencil, but no! He uses a pen and hard pencil, and engraves his message into the SB never to be removed.



Perhaps we could just blame that on carelessness, but look at him now. See what he does intentionally!

Oh, no!



He's gouging out his message with a knife. He's destroying the SB, and he knows it, which is a far greater sin than just carelessness.

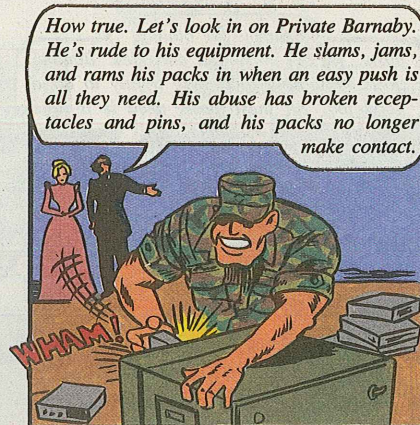


Let me at him. He deserves a good thrashing.

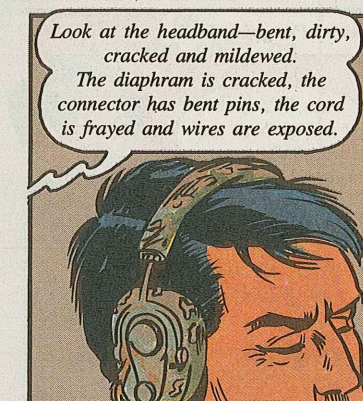
No, my friend.

... he's just one of many. You can't thrash them all.

JUN 85



How true. Let's look in on Private Barnaby. He's rude to his equipment. He slams, jams, and rams his packs in when an easy push is all they need. His abuse has broken receptacles and pins, and his packs no longer make contact.



Look at the headband—bent, dirty, cracked and mildewed. The diaphragm is cracked, the connector has bent pins, the cord is frayed and wires are exposed.



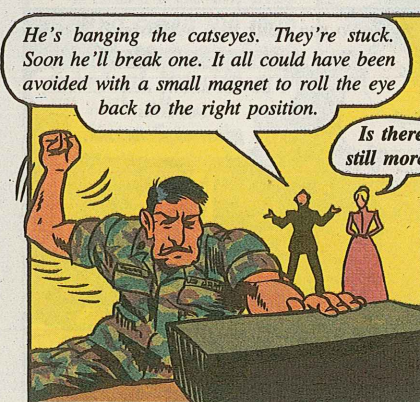
Let's go back, Charles. I've had enough.

Just a little more. Here is Sergeant Bill Sikes. He's a mean one. He gives headsets hard times.



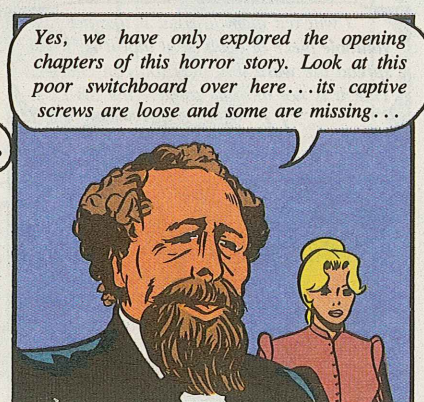
And when he's through, does he pack it away carefully? No, he stuffs it in the cover and then jams the cover down. The result—a broken headset and mangled plugs.

Oh no, what next?



He's banging the catseyes. They're stuck. Soon he'll break one. It all could have been avoided with a small magnet to roll the eye back to the right position.

Is there still more?



Yes, we have only explored the opening chapters of this horror story. Look at this poor switchboard over here...its captive screws are loose and some are missing...

JUN 85

35

...the tension is weak on the jack reel; and the handle's bent on the hand generator. Look at that case. The rivets have been jerked from the locks. All the latches are bent or broken. The straps are frayed and mildewed.

Tragic!

Examine the binding posts. They're dirty and corroded. Binding posts must hold field wire tightly to do a good job. All these posts need is a little silicone.

Now look at the gasket. They've let it dry rot. They've poked holes in it by ramming the wire through when all they had to do was bend the end into a small loop and slip it through.

I can take no more. I'm going back.

Yes, it's time. I will go back and finish the story. I will tell them to keep their switchboard clean and maintained.

I will tell them to treat it like the valuable piece of equipment that it is. I will spread the word that they too can change. That it is not too late to save the SB-22's.

Do you think they will listen?

I do not know, dear Connie, but I have great expectations.

DICKENS

Lube the Landing Gear

I'VE BEEN FEELING UNFULFILLED LATELY.

Dear Half-Mast,
I see a lot of landing legs on M172 or M172A1 lowbed semi-trailers that are not filled with oil.

The lube chart on Page 4-2 of TM 9-2330-211-14&P (Sep 84) has the word.

The oil lubes the elevating screws and helps keep the legs moving up and down.

To make sure the oil's there, mechanics should remove the lower drain plugs on the legs.

If there's no oil, they should clean the legs like it says on Page 4-144 of the TM and fill with oil.

Your Friendly LAR
Ft Boondocks

Clean elevating screw

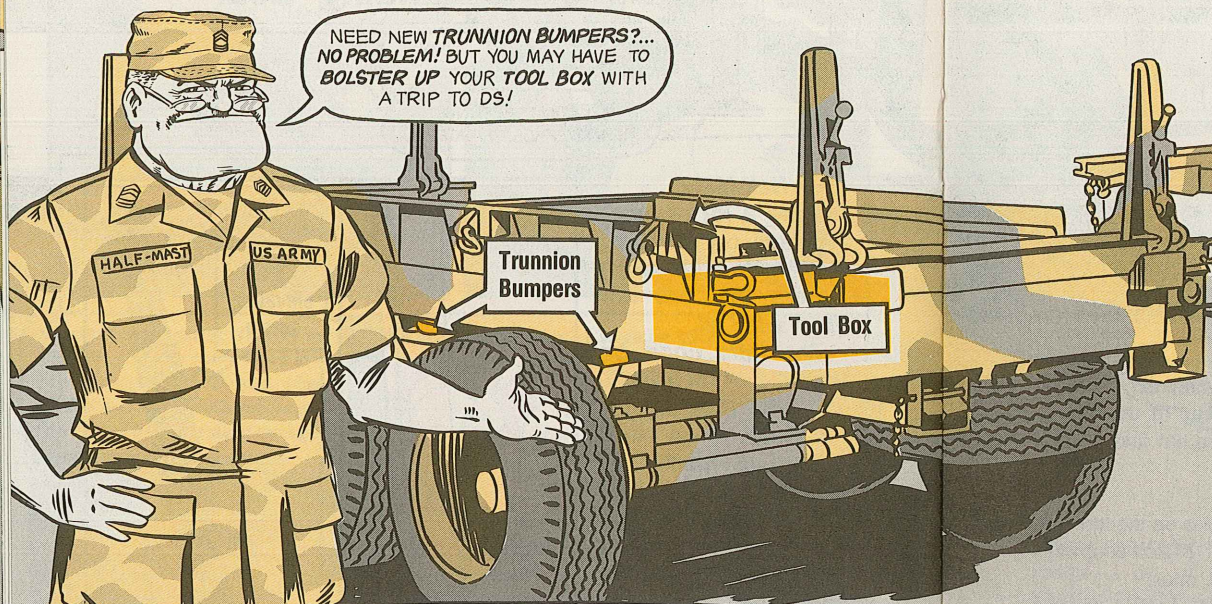
Remove lower plug

Crank up prevents bends

Thanks for the reminder. When the elevating screws are lubed, drivers will be able to crank the legs up all the way easier—and keep the legs from being bent during cross-country travel.

Half-Mast

Parts for M796 Bolster Trailer



Dear Half-Mast,

We have a lot of problems ordering parts for the M796 bolster trailer. We need info on how to get the rubber trunnion bumpers, in Fig 24, on Page 41, of TM 9-2330-287-14. These keep the trailer from slamming down on the shackles.

We also need the tool box in Fig 12 on Page 12.

We appreciate any help in getting these items.

SGT B.R.R.

Dear Sergeant B.R.R.,

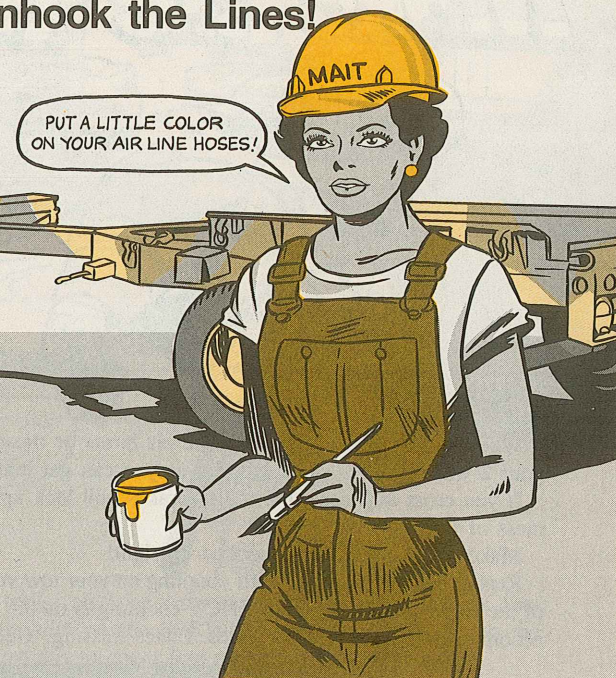
NSN 5340-00-075-9147 is for the trunnion bumper.

As for the tool box, there's no stock number. You can't get one. So have your DSU repair the tool box you have or get 'em to fabricate one.

If you need the manual container, get it with NSN 2540-00-388-9985.

Half-Mast

Unhook the Lines!



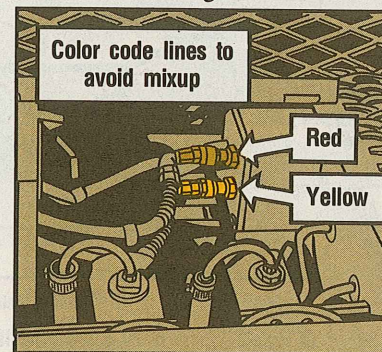
You say you extend or retract the reach tube—tongue—on your M796 or M796A1 bolster trailer without disconnecting the air hoses and electrical connector? And you haven't damaged the lines...yet? Well, you've just been lucky!

Fact is, it's real easy for those lines at the rear of the reach tube to hang up when you adjust the reach tube length.

Disconnecting the lines and cable is called for on Page 2-23 of TM 9-2330-287-14&P.

When you hook up the lines again, don't mix up the SERVICE and EMERGENCY lines. If the lines are crossed, the brakes will lock and you can't move out.

To make sure you don't cross them, put a dab of red paint on the EMERGENCY line and yellow paint on the SERVICE line. Then match them to the labels on fittings on the tube.



Trailer Hookups... *Make the Brakes in Your Favor*

UH-OH...LOOKS LIKE
SOMEBODY CROSSED
THE BRAKE AIR HOSES!

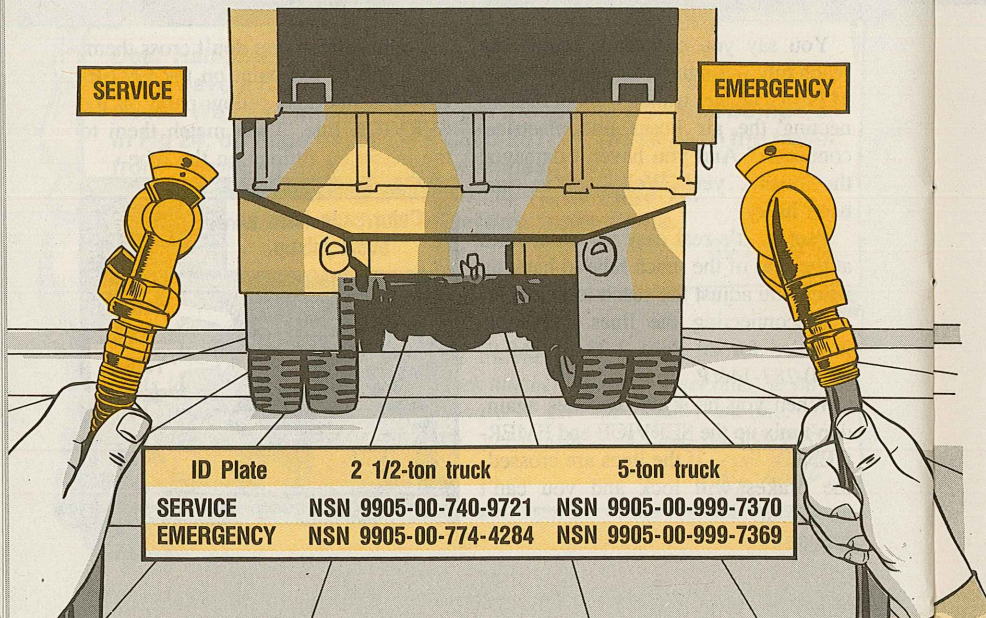


Whether you're hooking up brake air hoses or the intervehicular cable on your 2-wheel trailer, care's needed or you can get into a heap of trouble.

If you cross air hoses, the trailer brakes will lock up, burn out and make a mess of tires.

Make sure your trailer's hooked up right!

Remember, the SERVICE air coupling on your tow vehicle is on the left side of the frame and the EMERGENCY coupling is on the right. Match couplings according to the truck's ID plates. Plates missing? Get new ones:



THAT'S RIGHT! AND
SOMEBODY HERE
DID IT!



You can color-code trailer air hose connectors and the tow vehicle's couplings—a dot of yellow paint on the SERVICE connectors and red on the EMERGENCY pair. Use dirt to cover 'em when it's camouflage time.

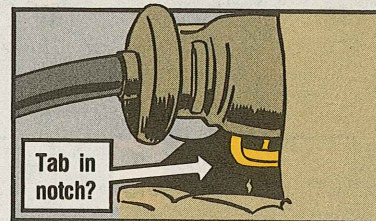
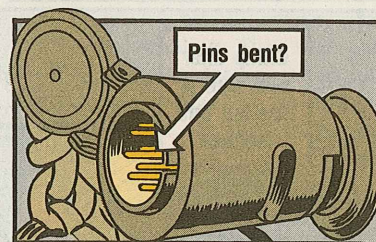
Care for a Cable

Before you push the intervehicular cable connector into the truck's receptacle, line up the connector's keyway with the receptacle's key or nub. If the connector keyway is too snug, spread it by gently twisting a screwdriver in the slot. Using force can bend or break pins.

Whenever the pins do get bent, straighten 'em with needlenose pliers. If any of the pins have been pushed down into the plug, use the pliers to gently pull the pins back out even with the others.

When the connector is pushed into the receptacle, make sure the receptacle cover tab fits firm in the connector notch.

JUN 85



Pull Fixed Extinguisher Pin? No!

As you were! Disregard "Pull the Pin" on Page 24 of PS 377—and any like info you've seen or heard anywhere else.

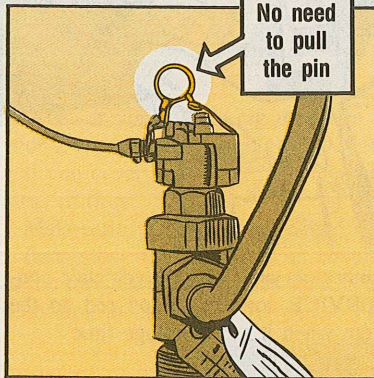
You do not need to pull the fixed fire extinguisher's pin to operate the remote emergency handle.

This means the pin and seal are still in place when the extinguisher has been discharged—a false sign of security.

DON'T
DO IT OR
YOU'LL
RUE IT!



No need
to pull
the pin



But here's a fix to beat that problem: Have your mechanic drill a 1/8-in hole—centered—about 1/2 inch from the outer edge of the cover protecting the remote handle. Then wrap a wire seal—NSN 5340-00-835-9815—around the handle.

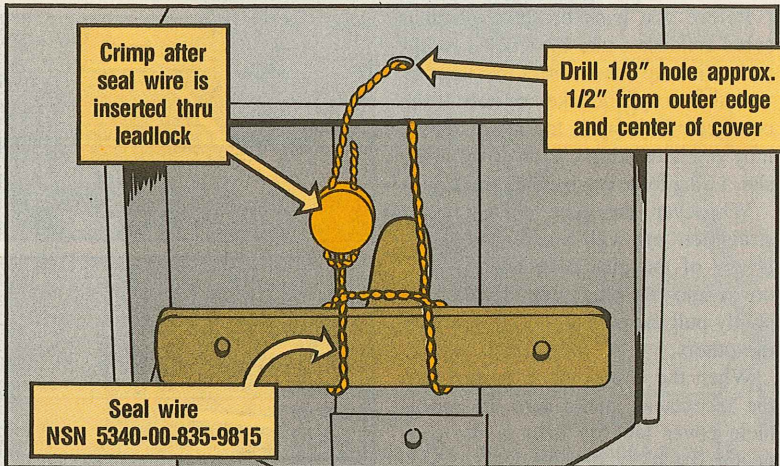
Using the handle will break the seal—showing that the extinguisher needs recharging. Get it recharged—right now!

Info on inspection and servicing of fire extinguishers is in Chap 8 of TM 9-2330-272-14&P.

Crimp after
seal wire is
inserted thru
leadlock

Drill 1/8" hole approx.
1/2" from outer edge
and center of cover

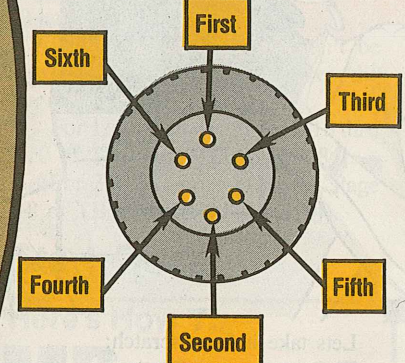
Seal wire
NSN 5340-00-835-9815



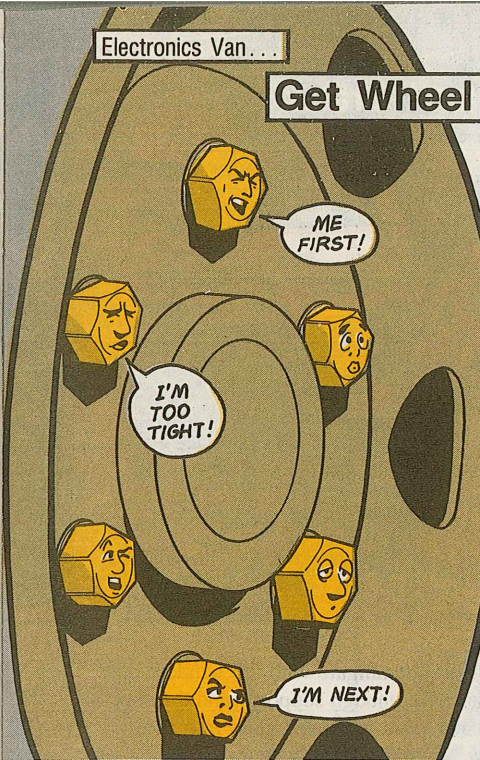
Get Wheel Nuts Right!

Loose... too tight... tightened in the wrong sequence. Any of these is wrong for wheel lug nuts and stud nuts on your M348-series, M373-series, XM1005 or XM1007 electronics semitrailer van.

The tightening sequence is:



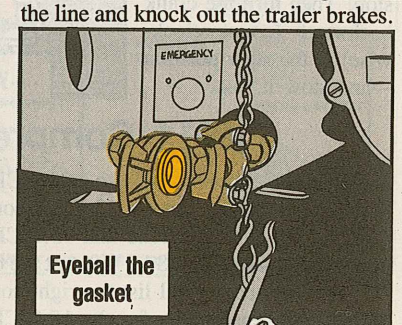
First, tighten nuts to 50 lb ft, then to 450-500 lb ft. These instructions will be added to TM 9-2330-246-14&P.



Cover Those Couplings

If your truck or trailer has air brake quick disconnect couplings, NSN 4730-00-595-0083, be sure and keep the cover, NSN 2530-00-270-3878, on the coupling when it's not in use.

When it's left off, mud and grit can get into the coupling. Then when you hook up, dirt can damage the gasket, NSN 5330-00-090-2128, so it won't make a snug fit. Or, dirt can get into the line and knock out the trailer brakes.



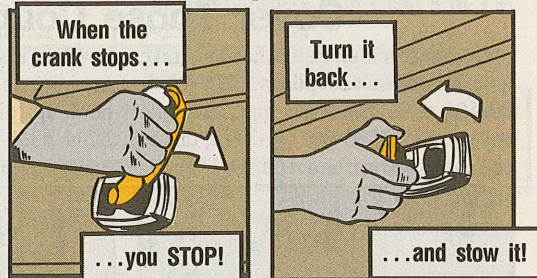
Save Glass and Crank



Lets take it from scratch:

■ Sure, it's possible to open—and close—the tailgate with the window only partly down. But then the window doesn't have enough support—and the shock of slamming or dropping the tailgate shatters that tempered glass into a zillion tiny pieces. So always roll the window down completely before opening or closing the tailgate.

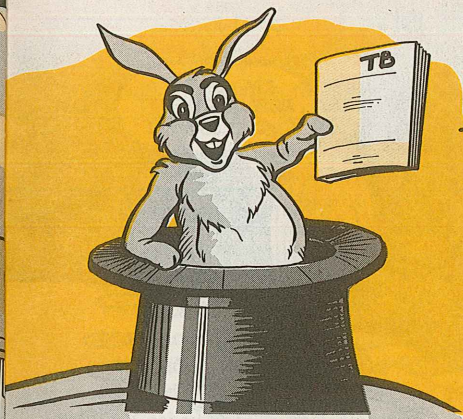
■ If you keep turning the crank when the window's closed, you'll tear up the cranking gear. So when the crank stops, you stop! Then turn the crank backward (counterclockwise) to the stow position—and stow it.



M911 Compressor & Filter

All M911 tractor trucks use a 15.5 CFM air compressor, NSN 4310-01-102-8298. They do not use the 12 CFM compressor listed for Item 1 in Fig 74 of TM 9-2320-270-20P. And that 15.5 CFM compressor uses a round filter element, NSN 4310-00-487-2769, not the block-shaped job shown as Item 7 in Fig 75. A -20P update will list the right compressor and element along with other Org Maint repair parts for the 15.5 CFM compressor.

25- to 60-Amp Switcheroo



THERE'S NO NEED TO RESORT TO MAGIC, JUST USE YOUR TB!

There's no magic in changing your truck's 25-amp charging system to 60-amp.

When the 25-amp system can't be repaired, your mechanic makes the switch using these instructions:

—For 1/4-ton truck, Pages 2-16 thru 2-20 of TB 43-0001-39-8 (Jan 84).

—For 2 1/2- and 5-ton trucks, Page 3-8 of TB 43-0001-39-2 (Jul 84).

Get a Jump Start Decal

A reminder to hook up batteries right for jump starting is free for the asking.

Get this 4 1/2-in by 5 1/2-in red and white stick-on label by calling the Army Safety Center, AV 558-6483 or -2062, or write to:

Commander
U.S. Army Safety Center
ATTN: PESC-M
Ft Rucker, AL 36362-5663

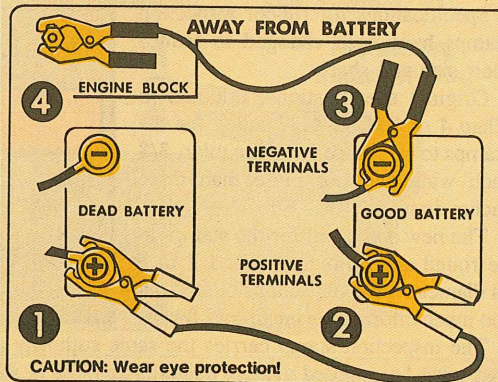
Stick the decal near the battery.

Never use jumper cables to start the CUCV or M939 5-ton truck. These vehicles have a NATO slave cable hookup. For emergency starting, use only the **slave cable** in the No. 1 or No. 2 Common shop set.

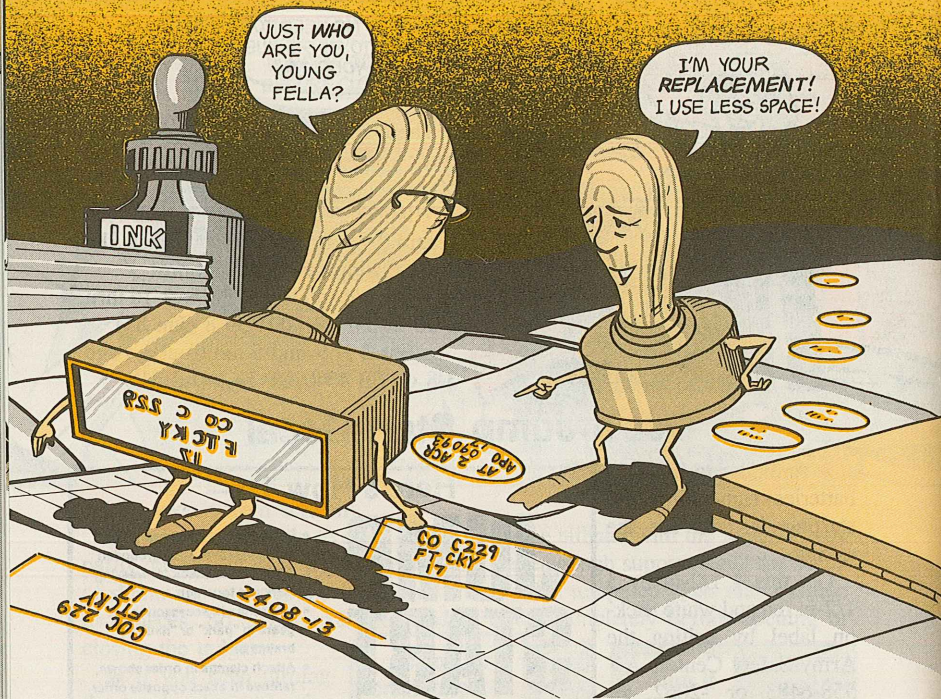
Here's How To—

JUMP START

- Batteries same voltage
- Both negative posts grounded
- Check fluid, check for freezing
- Cars not touching
- Ignitions off, accessories off, gears in "park" or "neutral," brakes on
- Attach clamps in order shown, remove in exact opposite order



Inspection Stamp Specs Revised

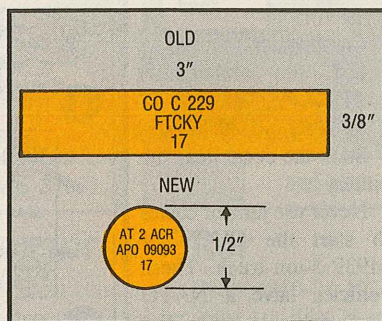


Specifications for rubber inspection stamps have been changed to reduce their size and shape.

Original specifications, outlined in Chap 4 of FM 55-411, called for the stamps to be square or rectangular, 3/8 inch wide and not more than three inches long.

The new specs call for the stamps to be round and no bigger than 1/2 inch in diameter. The old stamps blotted out too much information on aircraft forms.

The inspection stamp carries the same authority as an inspector's signature and must be guarded against unauthorized use at all times. The stamp should include only the inspector's number and unit designation. The revision to FM 55-411 is not scheduled for publication until Fall 1987, so make a note.



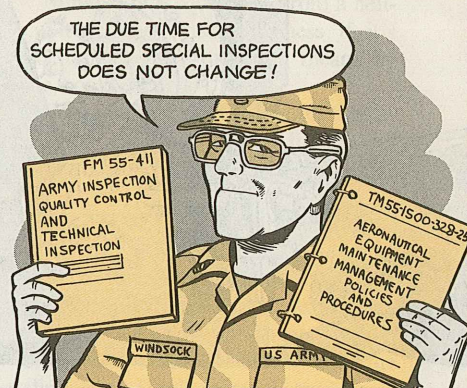
Scheduled Special Inspections...

"Due" Time Does Not Change

Your DA Form 2028's have done it again! Prompted a change, that is.

Pages 3-3 and 3-4 of FM 55-411, Army Aircraft Quality Control and Technical Inspection, are being updated to provide clear guidance on prescribed intervals between special inspections.

Until the revision is published, go by the word in Para 2-3b(5) of TM 55-1500-328-25, for scheduling special inspections. It says scheduled special inspections that are performed early do NOT change the "due" time of the next scheduled special inspection.

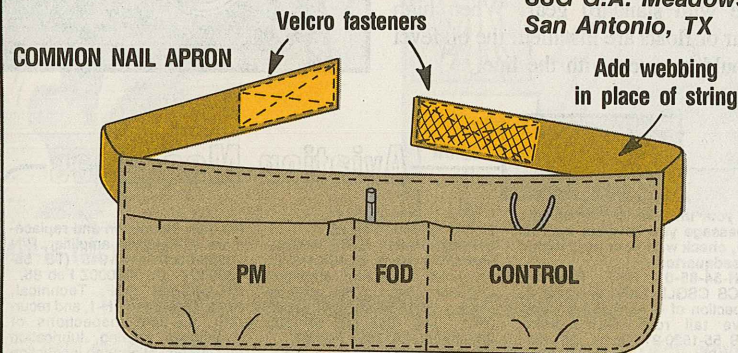


Clean Up Your Act

Dear Editor,

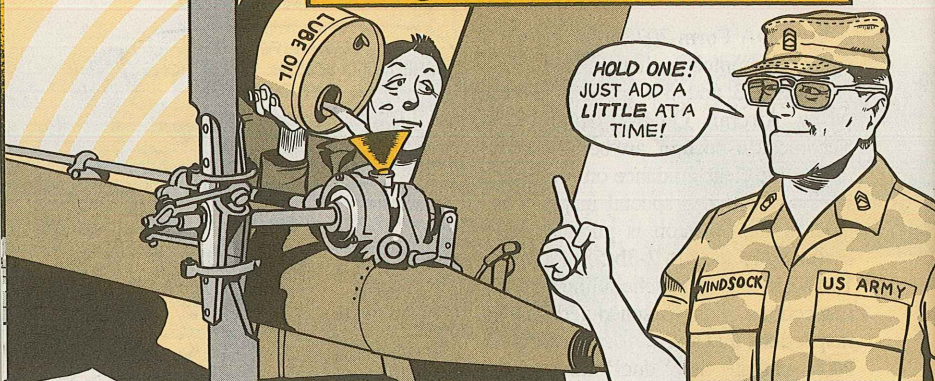
Here's a handy aid to help control FOD. Modify a common nail apron by replacing the tie strings with webbing, NSN 8305-01-062-7050, and add fasteners, NSN 8315-00-106-5974 (pile) and NSN 8315-00-106-5973 (hook). Use the apron to hold small tools, pencils, hardware, etc.

SSG G.A. Meadows
San Antonio, TX



(Editor's note—Looks like you hit the nail on the head! A ready-to-use alternative is the construction worker's apron, NSN 8415-00-273-9664. CTA 50-900 is the authority.)

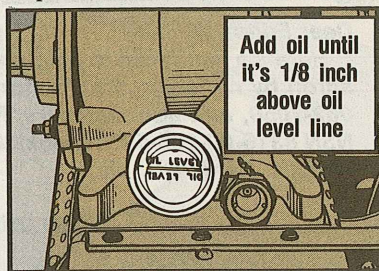
Enough Is Enough Already!



More is not better when it comes to lubricating the OH-58A/C tail rotor gearbox. Overfilling causes oil leakage. Then tail rotor trunnion bearings suffer. They wear faster and have to be replaced sooner.

So, Kiowa mechs, eyeball the gearbox sight gage. Add just the right amount of oil. Add a little at a time and let the level stabilize. Add a little more, if needed, to get the right indication on the sight glass.

That's 1/8 inch above the oil level line with standard gear. When high gear or floats are installed, the oil level should be even with the line.



Cat 1 EIR Phone:
AUTOVON 693-2066
(24 hours)

Aviation Messages

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

CH-54-85-01, SOF, Technical RCS CSGLD-1860, one-time inspection of CH-54A/B for defective tail rotor Servo links, TB 55-1520-217-20-25, 251400Z Feb 85.

CH-47-85-01, SOF, Technical RCS CSGLD-1860, inspection of horizontal pin bearing installation of CH-47C/D with fiberglass rotor blades (FRB), TB 55-1520-241-

20-30, 151545Z Feb 85.

UH-60A-85-01, SOF, Maintenance Mandatory, BLACK HAWK, one-time inspection stabilator amplifiers for locking potentiometers, P/N 02001-041, -042, -043, -044, -045 (TB 55-1520-237-20-60), 081745Z Feb 85.

UH-60A-85-02, SOF, Maintenance Mandatory, to change autorotation RPM limits on the UH-60A, 221700Z Feb 85.

UH-60A-85-03, SOF, Maintenance Mandatory, BLACK HAWK,

one-time inspection and replacement of stabilator amplifier, P/N 70902-02001-044-045 (TB 55-1520-237-20), 282000Z Feb 85.

AH-1-85-01, SOF, Technical, AH-1, TAH-1 and TH-1, and recurring one-time inspections of swashplate bearing, lubrication and interval of bearing inspection (TB 55-1520-244-20-6), 282145Z Feb 85.

MIM-CH-54-85-01, CH-54A/B Engine torque indication, 041810Z Feb 85.

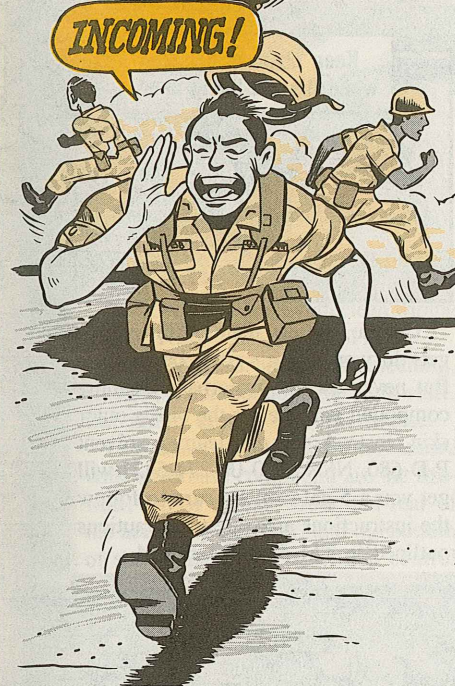
Sling It by the Book

Slingloading equipment from a helicopter can be risky business if it's not done right. And right means by the book!

Some ground crews have been turning the apex fittings on slingloading gear upside down. They say their loads hang better that way.

But FM 55-450-1 specifically warns against reversing the fittings. Reversing the fittings will increase the chance of the pin breaking under stress.

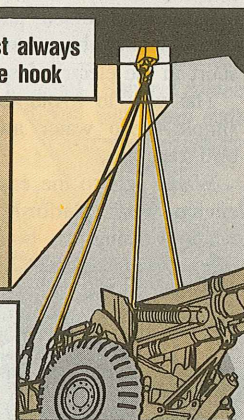
The pin must **always** engage the aircraft hook, while the clevis holds the sling legs. Don't try to second-guess the experts—you and your load could fall on some real hard times!



Pin must always engage hook



Clevis holds the sling legs

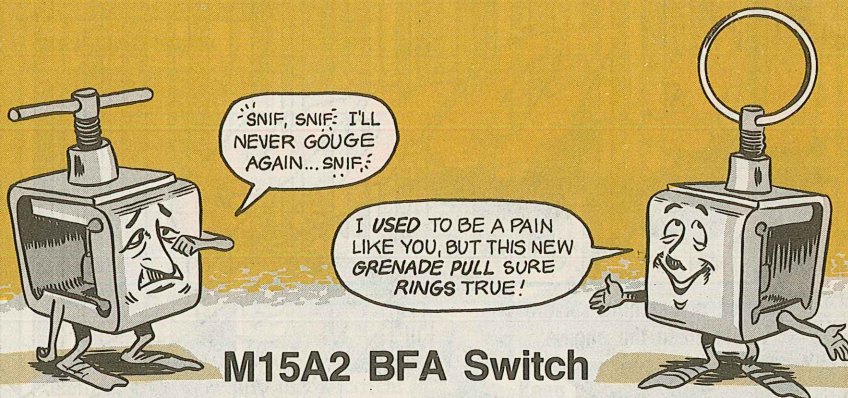


AH-1S (MC) Cobra...

New Repair Kit Available

There's a new repair kit available for repairing damaged or broken cowl nut plates on the IR suppressor.

The kit, NSN 1560-01-154-7053, includes one bolt, one washer, a self-locking nut plate, a plate assembly and two blind rivets. It makes the job of repairing damaged nut plates a lot easier.



M15A2 BFA Switch

Go for no more rips, gouges, tears and injuries caused by the locking spring pin in the M15A2 blank firing attachment.

TB 43-0001-36-5 (Apr 84) gives the OK to switch the spring pin to the pull ring used on hand grenades.

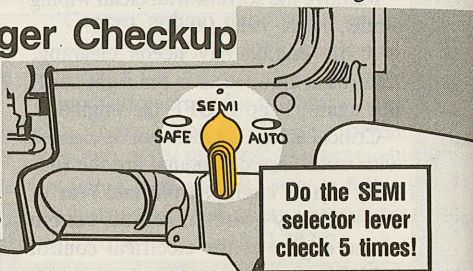
Para 4-2b, Page 4-1 of the TB approves use of hand grenade pull ring, NSN 1330-01-117-5280. Discarded pull rings from grenade practice ranges can be used, or new rings can be requested. Para 4-2b(2)(e) tells armorers how to install the rings.

The M15A2 BFA is used with the M16/16A1 rifle and M249 machine gun.

M16A1 Trigger Checkup

The next time you do an armorer function test on an M16A1 rifle, do the SEMI selector lever check five times.

AMCCOM Msg AMSMC-MAG-SD 111630Z Sep 84 changes Step c. on Page 2-44 of TM 9-1005-249-24&P to read like so:



c. Selector lever

Place in SEMI position and pull trigger.

Hold trigger to the rear, charge weapon, and release the trigger with a slow, smooth motion, without hesitations or stops, until the trigger is fully forward.

Repeat the SEMI position test five times, the weapon may not malfunction every time.

Hammer should fall.

Hammer should not fall.

If the weapon malfunctions during any of these five tests, evacuate it to Direct Support Maintenance for repair.

The test checks for worn parts. If parts are worn, the rifle can fire accidentally when the trigger is released. That could be dangerous.

If a rifle fails the test, it could kill or injure riflemen when fired. Get it fixed!

Chrome/Phosphate Parts Mix

Back in the days when the M16A1 rifle was young, it was dressed up with good-looking, long-lasting, chrome-plated bolts, carriers and parts.

Just one little problem: Sunlight had a way of reflecting off the chrome... and gave positions away.

So, phosphate-coated bolts and carriers made the scene. They cut down sunlight reflections.

Phosphate coating reduces sunlight reflections



The revised TM 9-1005-249-24&P banned chrome-plated bolt assemblies for rifles in division combat units. The chrome was OK'd only for training units and division non-combat units.

That brings us to today.

TB 43-0001-36-8, due out any time now, clarifies the ban.

• Division combat units and over-

seas units must use phosphate-coated bolt carriers.

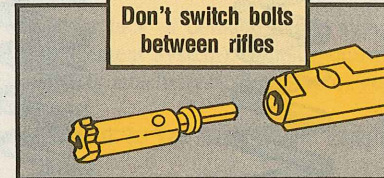
• Units in CONUS and Alaska can use chrome-plated carriers. But before going overseas, every unit must replace chrome-plated bolt carriers with phosphate-coated ones.

Fight, Don't Switch

Now that your attention is "bolted," hang on this:

All of the rifle's TM's warn against switching bolts from one rifle to another.

WARNING
Don't switch bolts between rifles



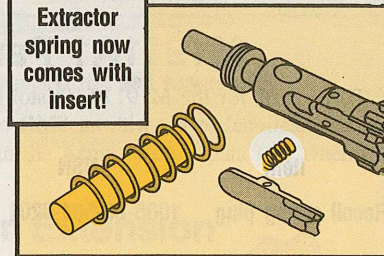
Each bolt must be headspaced by DS to the rifle it's used in. If the bolt's not headspaced right, your rifle can misfire and hurt or kill you.

Update Extractor Spring

You armorers need to replace all early type extractor springs in your M16/M16A1 rifles with the new spring... which comes with an insert. It's listed as NSN 1005-00-760-3768, spring assembly, on Page C-9 of TM 9-1005-249-24&P.

An upcoming change to Page 2-21 of the TM makes replacement of the old spring a must.

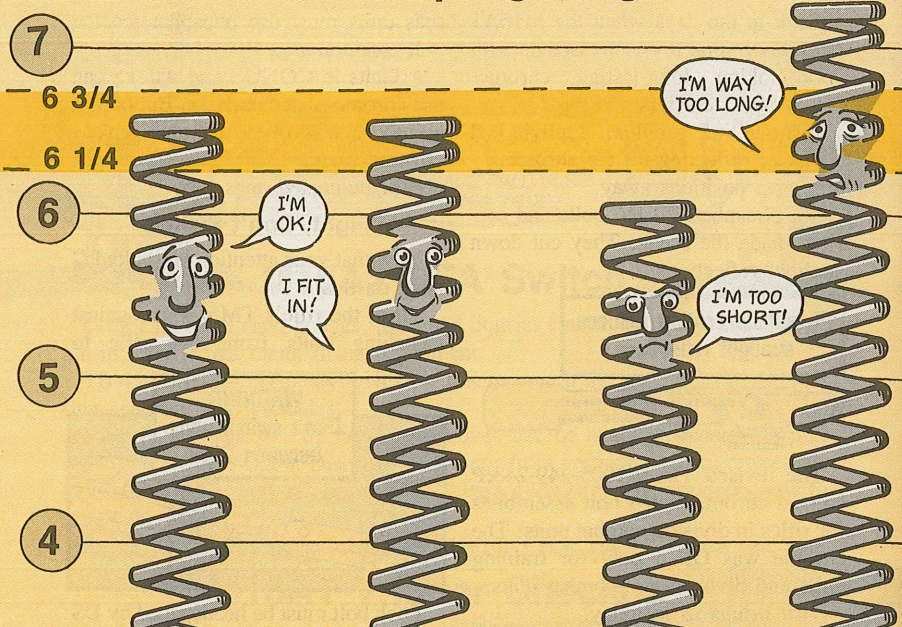
Extractor spring now comes with insert!



M16A1 Cover Is No More

Plastic protective cover, NSN-1005-00-809-2190, is no longer available. That cover fit only M16A1 rifles with a 20-round magazine. No cover will be supplied to fit rifles with 30-round magazines.

M1911A1 Spring Length






Serviceability length of the M1911A1 pistol's recoil spring in C1 to TM 9-1005-211-12 has been reduced.

Page 6-2, of TB 43-0001-36-5 (Apr 84) says the spring can be no more than 6 3/4 inches or less than 6 1/4 inches free length (not compressed). Otherwise, it must be replaced.

M1911A1 Parts Switched

Three parts for the M1911A1 pistol have been moved from Direct Support to organizational level, with an SMR code of PAOZZ. They are:

Item	NSN	
Recoil spring plug	1005-00-501-3201	
Recoil spring	5360-00-501-3200	
Spring guide	1005-00-600-8597	

TB 43-0001-36-7 Oct 84 has the word.

M85 Flash Suppressor



DON'T WORRY LITTLE FELLA, WE'LL FIND SOMEBODY WHO NEEDS YOU!

Need a flash suppressor for the barrel of your M85 machine gun? Cannibalize!

The NSN for the suppressor was dropped for lack of demand. Then along came MILES (Multiple Integrated Laser Engagement System), which required removal of suppressors to install M20 blank firing attachments. Suppressors got lost or damaged, which created a new demand.

The suppressor, NSN 1005-00-123-0466, will be put back in the supply system, but that's going to take time.

Meanwhile, if you need them, cannibalize suppressors from shot-out barrels. Also, if you use MILES, be careful removing and installing the suppressors—and tag them with your weapon's serial numbers while they're off the barrel.

There's an expensive route you can go if you're in a crunch. You can request NSN 1005-00-463-4616, which gets you a new barrel with suppressor installed. Use your old barrel with the MILES' BFA.



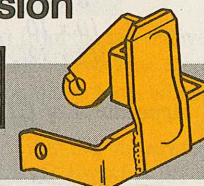
NSN 1005-00-463-4616 gets barrel and suppressor

The suppressor NSN will reappear in the Army Master Data File when the item becomes available again.

M85 Trigger Extension

Use NSN 1005-01-040-8836 to get the trigger extension for your M85 machine gun. It replaces NSN 1005-00-064-5139 shown as Item 4, Fig C5 of TM 9-1005-231-25.

Replace it!



It's in the Bag



Dear Macon,

I've found a new way to store and protect my small commo parts and accessories. I use interlocking seal bags.

They're great for storage. Since the bag's clear plastic, I can tell at a glance what's inside and how many there are. The tight seal keeps dirt and moisture away from handsets, headsets, microphones and cables.

My only problem is getting them through the supply system. Are there NSN's for the bags? How about different sizes?

SSG D.G.S.

Dear Sergeant D.G.S.,

Good idea, good questions.

Those bags will protect almost anything—notebooks, log books, small parts, cleaning kits, pubs, whatever fits.

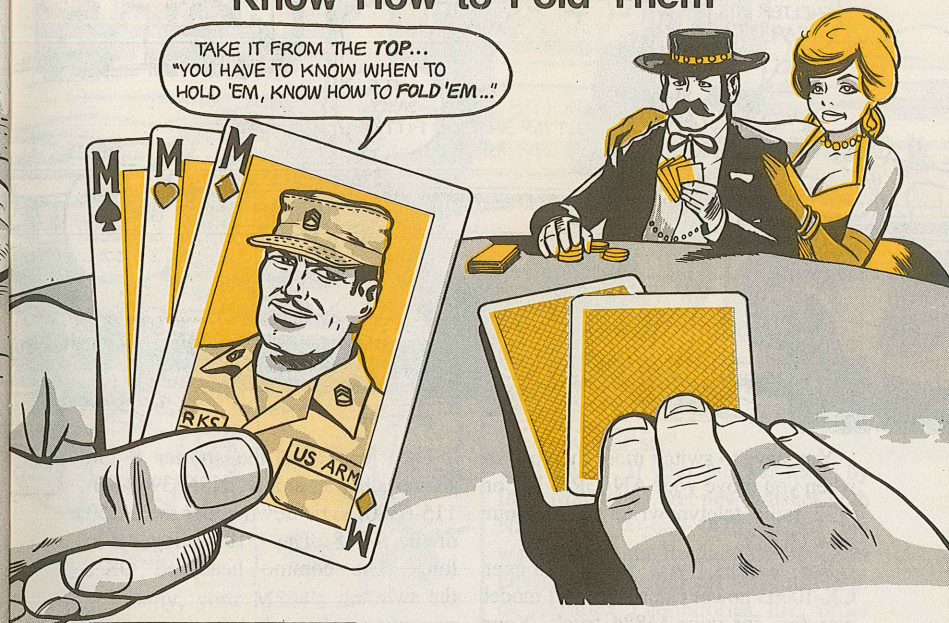
Here's a list of available sizes:

Size (inches)	Quantity	NSN 8105-00-837-
4 x 4	1,000	7753
6 x 6	1,000	7754
8 x 8	1,000	7755
10 x 10	500	7756
12 x 12	500	7757

Appendix A of CTA 50-970 gives you the OK to order the bags.

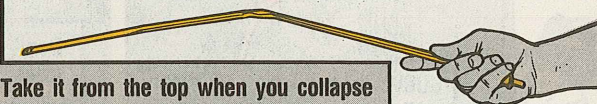
Macon

Know How to Fold Them



Your backpack radio antennas won't stand tall *next* time if you break their backs when you put them away *this* time.

Your AT-892 blade antenna folds one way—toward the concave (scooped) side. If you force it toward the convex side, you'll put a permanent kink in it or snap it off.

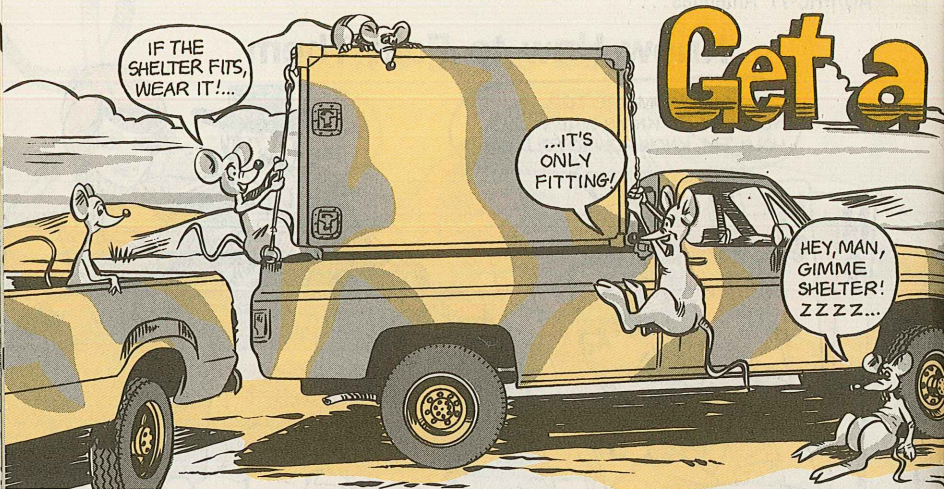


The cord inside the whip that keeps it straight connects to a spring in the base.

Taking the antenna apart from the top relieves the stress on the spring. Pulling on the base increases the strain on the spring. Too much force will spring the spring or break the cord.

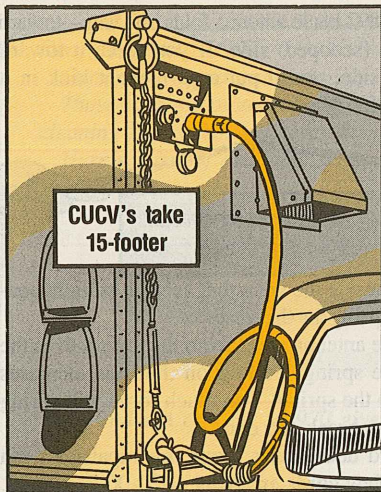
If the cord does break, your org repairman can replace it. New cords are NSN 4020-00-281-8439.



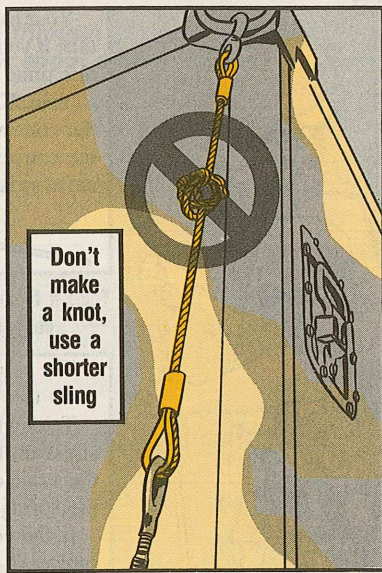


You have to switch more than trucks when you move your AN/GRC-142 or -122 radio teletypewriter set to your new CUCV.

For starters, you need a longer CX-10463 power cable. The 9-ft model was fine for your M884 truck. Your M1028, tho, takes a 15-ft cable, NSN 5995-01-012-3629.



Then you need the shorter S-250 shelter sling assembly, NSN 3940-00-115-6380, to tie down either the S-250 or the S-318. The -318's sling is too long. The commo headshed OK's the switch.



Get a RATT Good Fit



Brushing Up

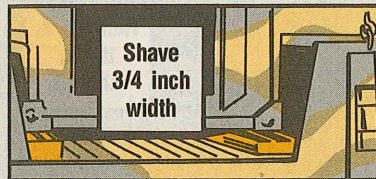
Need new brushes for the exhaust fan motor in your AN/GRC-142 or -122 plain or A thru C model radio teletypewriter set?

No sweat. If your fan was made by IMC Magnetics, get new brushes with NSN 5977-00-686-4476. If the fan was made by the Rotating Components Division of Instruments Systems Corp. or Aeroflex Laboratories Inc, order with FSCM 02598 PN 323-01. Use Routing Identifier Code (RIC) B16.

You org mechs replace bad brushes during quarterly services, per Table 5-1 of TM 11-5815-334-12.

Finally, your M884's dunnage has to be trimmed and a tailgate added to your CUCV to secure the shelter.

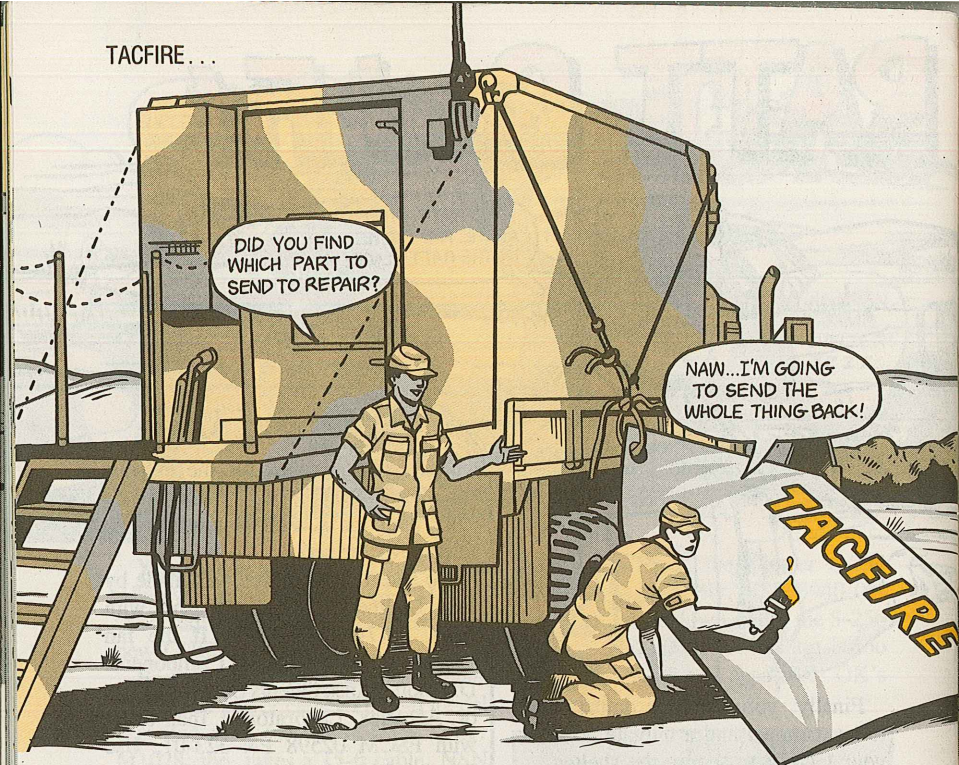
The dunnage stays 97 1/2 inches long, but the width has to be shaved three-quarters of an inch (to 50 inches) to make it fit.



Your org shop can add the tailgate, NSN 2510-01-155-5857. Mounting hardware is shown in Fig. 125, TM 9-2320-289-20P. It'll come with M1028's in the future.

If you're building your dunnage from scratch, see SB 11-640 for dunnage on the M884, and make the size changes.





Tag It TACFIRE

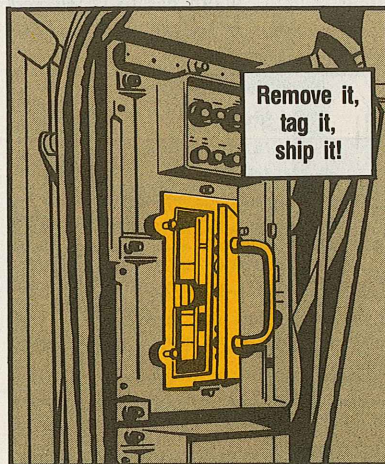
Out with the bad, in with the good—it's substitution of parts that keeps your fire direction system on the go.

It's up to you to keep the good parts coming by getting the bad ones to the repair shop ASAP.

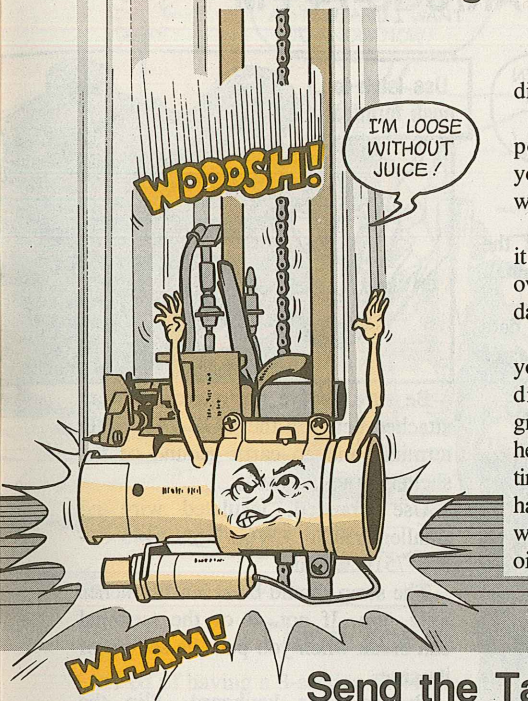
Do it by tagging the bad parts with "TACFIRE" in big, bold letters. That's the word from CECOM Msg AMSEL-MMD-R 021453Z Nov 84.

Your tag doesn't have to be fancy, just noticeable. That message will make sure the part gets priority handling on the way to, and at, the repair depot.

Keep markings off the part itself, of course. Mark the shipping box, or tape or tie a piece of paper to the item.



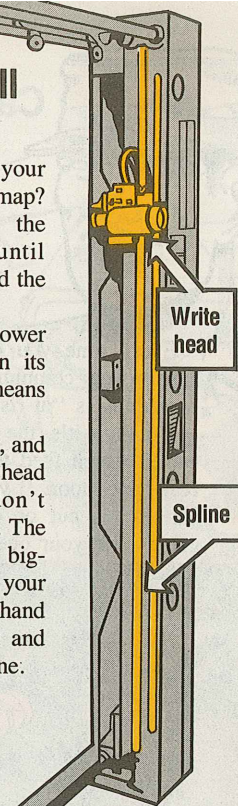
Write-Heading for a Fall



Thru with your digital plotter map? Don't shut the power off until you've lowered the write-head.

If you don't lower it, it drops on its own. That means damage.

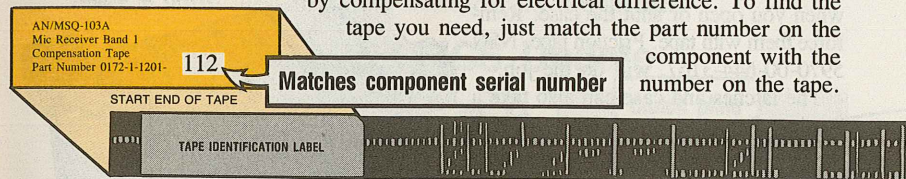
If you forget, and you see the head dropping, don't grab the spline. The head can do big-time damage to your hand, or your hand will leave dirt and oil on the spline.



Send the Tape

Remember to send the compensation tape along with any component of your AN/MSQ-103A or -103C receiving set that goes in for repair.

There are 14 tapes. Each tape mates its component to the rest of the system by compensating for electrical difference. To find the tape you need, just match the part number on the component with the number on the tape.



Without your tape, depot maintenance will have to make a new tape. That takes time and costs more money.

If you have a question about a tape, Call AUTOVON 249-6703/6704/6705 or write to:

**Commander
USAEMRA
ATTN: SELEM-ME-E-M
Vint Hill Farms Station
Warrenton, VA 22186-5141**

Case for AN/UGC-74 PM

IT'S AN OPEN AND SHUT CASE, BUT BE CAREFUL!

Every time you open or shut the case on your communications terminal, something is "at risk."

Usually, it's the power and data cables which feed through the case's rear panel door. If you're the least bit careless, a cut or crimp will KO a cable—and your operation.

Protect cables

Give the cables a hand. Guide them when you open or shut the case. Reinforce them with tape. Friction tape, NSN 5970-00-644-3167, will do the job.

The latches and case can also take a beating. Some troops use a screwdriver or other pry bar to crack the case open once the latches are released.

A better way is to use the latches to pry open the case. Once they're released, just slip the latches back inside their slot and push. That moves the case far enough to let you pull it open easily.

Use latch to push terminal

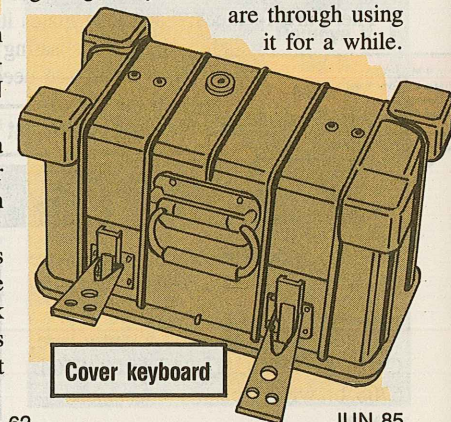
Be sure you've got a ground strap attached between the UGC-74's GRD terminal and an earth ground or the shelter's rack.

Use stranded, insulated wire no smaller than 14 AWG. NSN 6145-00-578-7516 will do.

The strap should be at least 8 inches long, too. If not, it or the terminal can break when you pull the set out of its case.

Protect your keyboard. Slip the cover assembly back on when you're getting ready to move the terminal or are through using it for a while.

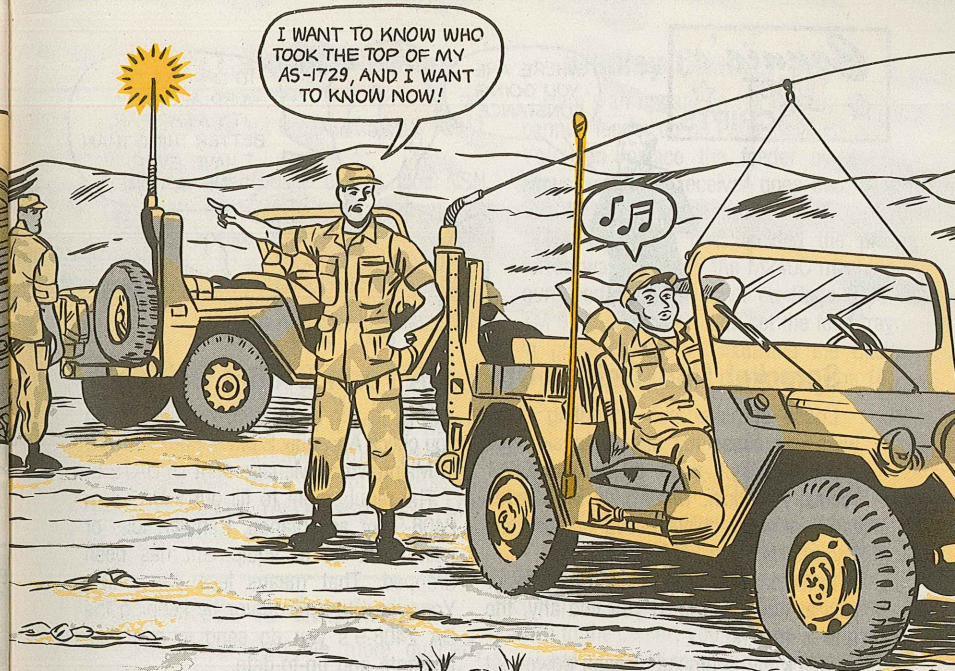
Cover keyboard



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I WANT TO KNOW WHO TOOK THE TOP OF MY AS-1729, AND I WANT TO KNOW NOW!



Time for a Short One

Tired of having a 3-section R-442 receiver antenna waving from the side of your vehicle?

Then use a single AT-1095 section, NSN 5820-00-856-2728. That's the top section of your AS-1729 antenna.

The headshed has approved a switch to this setup. It's shorter, cheaper and easier to install. Best of all, you won't lose any performance.

R0-526 PMCS Update

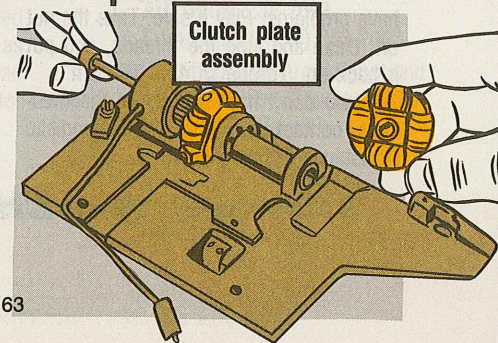
When the clutch assemblies on the card punch/reader-interpreter for the DAS-3 get dirty, the cards jam.

The PMCS in TM 11-7040-200-10 and -23 call for a semiannual clutch cleaning. Turns out that's too long an interval.

The headshed now says to clean the assemblies monthly. Changes to the TM's are on the way.

JUN 85

Clutch plate assembly



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Connie's ★ POST ★ SCRIPTS



Sprocket Hub Tighten-Up

Loose sprocket hub mounting hardware can cause the hub to break away from the final drive on your M88A1 recovery vehicle, M48A5 or M60-series tank—or any vehicle based on the tank chassis, like the SGT York.

Look for shiny areas around the nuts or rust at the nut area. If you find any, the hub is moving.

Check the tightness of each dowel nut or nut and bushing using the PD1201 torque wrench and tighten to 450-460 lb-ft. Do not loosen the nuts before checking tightness.

If the nut moves, you've got problems. The word on what to look for then, and how to do the repair work, is in TACOM Safety-of-Use Msg AMSTA-MCA 222300Z Mar 85.

If the nut doesn't move, you may still have problems. Play it safe. Take the nut off, clean and lube the threads, and put it back on. Torque to 450-460 lb-ft.

If you don't have a copy of the message, contact your local TACOM Logistic Assistance Representative.

DA Form 2408-9 Deletions

You're in for a pleasant surprise when you check Appendix E of DA Pam 738-750 in Maintenance Management UPDATE 6.

The requirement to fill out a DA Form 2408-9 for acceptance, transfer, loss or gain on a lot of equipment has been dropped. That means less paperwork. You can return the favor by keeping the DA 2408-9's you do send in readable, accurate and up-to-date.

Equipment requiring DA 2408-9 Usage or Registration reports isn't affected by the change.

Slow Down Toggle Switching

Give your AN/UYQ-10 plasma display's power switch a rest between "toggles" or it'll fail you.

You can still use the switch to reset the host computer logic, just do it less often—about once each 15 seconds.

If you switch it more often than that, current building up between switch contacts will arc, killing the switch.

M911 Circuit Breakers

Use NSN 5925-01-058-4970 to get a 15-AMP Circuit Breaker for your M911 Truck.

The 20-AMP Breaker comes under NSN 5925-00-643-5070. These are items 21 and 22 of Figure 22 in TM 9-2320-270-20P.

CAT CCE...

Air's OK, Too

Either nitrogen or compressed air is OK for refilling the tires on your M130G grader, M950B scoop loader or M621B scraper. The commercial manuals call for nitrogen only. But if it's not available use compressed air. TACOM Msg AMSTA-MVB 191803Z Feb 85 has the word.

Adios to Quarterlies

How 'bout that! No more quarterly services for combat vehicles! TACOM Msg AMSTA-MCA 242100Z Jan 85 has the word. If your local command OK's it, you just skip any quarterly called for and go with the semiannual and annual services.

Idling's a No-No

Hold one on following the 10-KW generator set shutdown info on Page 47 of PS 389. Instead of idling the set for 3-5 minutes, you should run it at rated speed with no load for 3-5 minutes as we've said many times before. Idling can wreck your set's exciter, voltage regulator or rotor rectifier diodes.

Bradley Cannon Shots

Here's an update on the Bradley M242 cannon feeder tip on Page 13 of PS 387. You **can** replace the feeder by itself. However, if the receiver goes bad, you turn in the entire cannon.

The headshed has decided the preferred way to install the M240C machine gun feed tray is shown on Page 3-30, TM 9-1005-313-10. Just set the feed tray in place instead of installing the back first. Go with the TM instead on Page 14, PS 387.

Only One 2408-9 to MRSA

Para 5-6d of DA Pam 738-750 tells you to send the NMP copy of #1 of DA Form 2408-9 through your local data reduction center to MRSA. Once you've sent the form to the center, you're done—no need to send a second copy of the form directly to MRSA. The duplicate only creates extra work for the data processing types.

Thumtug Hotline

If you have maintenance, supply or operational problems with Thumtug (THM-TG, target holding, mechanism, tank gunnery), call:

AUTOVON 238-7693
Commercial (717) 263-7693

That'll get Letterkenny Army Depot and the Thumtug info center. Thumtug's TM is 9-6920-442-12&P (Nov 83).

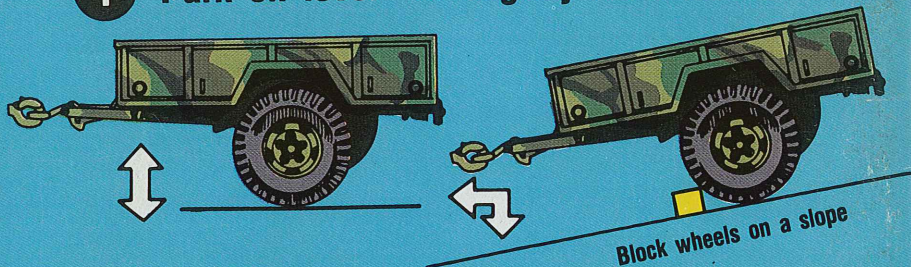
Would You Stake Your Life ^{right now} on

the Condition of Your Equipment?

Prevent Tip-back!

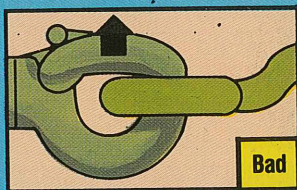
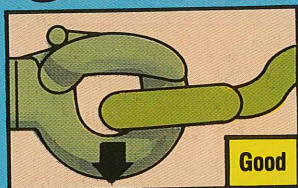
Before you unhook your
2-wheeled trailer...

1 Park on level—or slightly nose-down



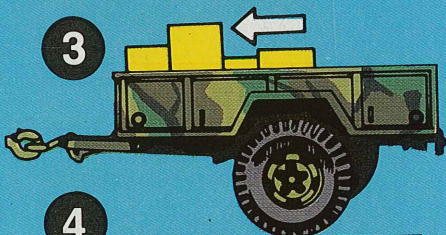
2 Make sure lunette presses

down in
tow
pintle



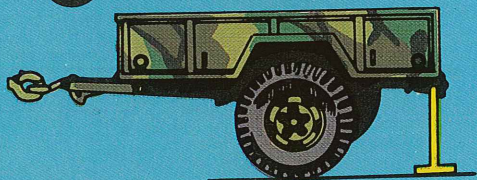
3

Move cargo
forward,
if needed



4

Add insurance—
rear support leg



(1 1/2-Ton)

NSN 2590-01-026-4179

(3/4-Ton)

NSN 2590-01-179-9080