

Issue 273

PS

August

1975

THE PREVENTIVE MAINTENANCE MONTHLY

IT'S GOTTA BE
FOD... BUT...

WHAT
KINDA
PLACE IS
THIS...

...TO
SET 'ER
DOWN?...

SPUT-

SPUTTER

...IT'S THE
ONLY CLEAR
SPOT FOR
MILES!

UNITED STATES ARMY

MURPHY
ANDERSON

SEE

"BEWARE . . . FOREIGN OBJECTS"

Pages 29-36

"THE COBRA (AH-1G)

Pages 38-61

SOLOMON,
SOLOMON,
IS IT
REALLY
YOU?

WISDOM IS YOURS

Picture a source of information boiling over with preventive maintenance wisdom . . . popping with the echoes of agonized yelps from organizational maintenance types . . . and penned from the fingers of professionals whose specialty is to ferret out maintenance that should have been, but never was, done by operators and unit repair types.

Color it with availability. See the vigor and interested pride that ring in the words that fill its pages. Measure the cost to you (nothing, if you're an innocent onlooker). And forget that it almost surely made somebody unhappy (to say the least.)

The point is, it can save your unit future pain, bother, cost, time, unnecessary deadline of equipment and a bad materiel readiness profile . . . as well as bring smiles to the face of your CO, your DS unit, and other types who pay the bills.

What, ask you, is this magical missive, this massive boost to PM . . . this transfusion that puts smiles on the miles . . . and PM in the pocket?

GET 'EM
FROM
YOUR DSU!

YUP—THAT'S MY
HANDLE !! WHO WANTS
T'KNOW?

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET (TM 38-750)									
1. ORGANIZATION A-3/51 ARMOR		2. NAME, MODEL AND TYPE TRUCK 5-TON		3. DATE 5 AUG 75		4. TYPE INSPECTION T-I		5. TM DATE	
6. REGISTRATION/SERIAL/FSN Q5C70471		7. HOURS 6059		8. ROUNDS FIRED		9. NO. STOPS		10. TM NUMBER	
11. TM NUMBER TM 92320-260-20		12. TM DATE JUL 1972		13. TM NUMBER		14. TM DATE		15. TM NUMBER	
<p>INSTRUCTIONS—Perform each check listed in the TM applicable to the inspection performed. Following the sequence listed in pertinent TM, complete form as follows:</p> <p>COLUMN a—Enter TM item number.</p> <p>COLUMN b—Enter the applicable condition status symbol.</p> <p>COLUMN c—Enter deficiencies and shortcomings.</p> <p>COLUMN d—Show corrective action for deficiency or shortcoming listed in Column c.</p> <p>COLUMN e—Individual ascertaining completed corrective action.</p>									
<p>ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.</p>									
16a. SIGNATURE (Person performing inspection) L.R. Murphy SPS		16b. TIME 0945		16c. SIGNATURE (Maintenance Supervisor)		16d. TIME 0955		16e. HOURS REQUIRED	
17a. TM ITEM NO. a		17b. STATUS b		17c. DEFICIENCIES AND SHORTCOMINGS c		17d. CORRECTIVE ACTION d		17e. INITIAL WHEN CORRECTED e	
✓		✓		DIRTY BATTERY BOX					
✓		✓		BATTERY MISSING					
✓		✓		R/FRONT LIFT SHACK MISSING					
✓		✓		OIL LEVEL LOW					
✓		✓		ENGINE COMPART. DIRTY					
✓		✓		CAB TOP SECURED WRONG					
✓		✓		NOT LUBED					
✓		✓		FUEL METER					
✓		✓		OUTLET LEAKING					
✓		✓		OIL PAN GASKET LEAKS					
✓		✓		TRANSMISSION OUTPUT					
✓		✓		SEALS LEAKING					
✓		✓		POWER STEERING					
✓		✓		LINES LEAKING					

It's your DSU's technical (turn-in) inspection findings, carefully penned by qualified inspectors on DA Forms 2404 whenever you forward equipment to Direct Support.

PS

THE
PREVENTIVE
MAINTENANCE
MONTHLY

Published by the Department of the Army for the information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limits of availability, older issues may be obtained direct from Editor, PS MAGAZINE, c/o US Army Maintenance Management Center, Lexington, KY 40507.

ISSUE No. 273 AUGUST 1975

GROUND MOBILITY 4-15

Camouflage Painting 4-7
1½-Ton Truck 8-13
2½-Ton Multifuel Truck 13
Leak Information 14-15

FIREPOWER 16-17

M117 Pan Telescope 16 M551 Sheridan 17

ELECTRONICS 18-21

AN/PPS-5 Radar Set 18-20
AN/TPS-21, -33 Radar Sets 21
PP-1578/PD Adapter 21

COMBAT SUPPORT/SUPPLY

Earth Augers 22, 23 M11 Decon 27
Caution Decal 23 New Publications 28
Protective Masks 24-25 DA 2408-9 62-63
M13 Decon 26 Logbooks 63
M12A1 Decon 27 DD 1348-6 64

AIR MOBILITY 37-61

FOD 29-36 UH-1 37
AH-1G 37, 38-61

PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to: Or call: AUTOVON 745-3503.

M S G Half-Mast
PS Magazine
Lexington, KY.
40507

Use of funds for printing of this publication has been approved by Headquarters, Department of the Army, 17 July 1973 in accordance with AR 310-1.
DISTRIBUTION: In accordance with requirements submitted on DA Form 12-5.

PS MORE

Read it, heed it, and forget the yo-yo technique which rubber-bands the equipment between you and your DS until it comes up to standards.

Fact is, if your DS doesn't give you copies of the TI 2404's, you can get hold of a stack of the discarded TI's. It's easy since DS tosses them whenever all the listed faults are corrected . . . (and somebody down there is bound to have a friend in DS who can dig up the discards).

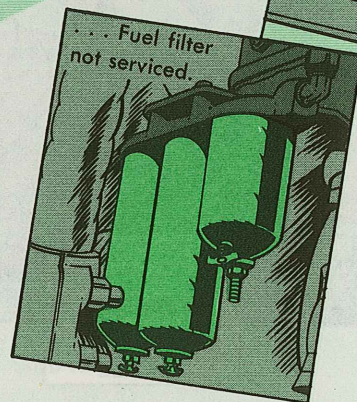
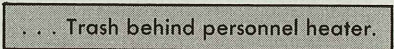
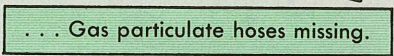
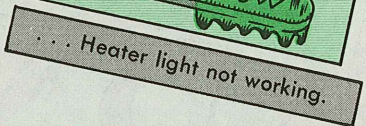
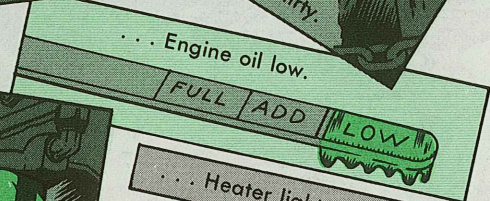
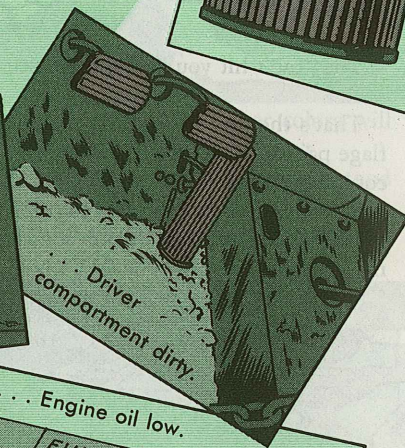
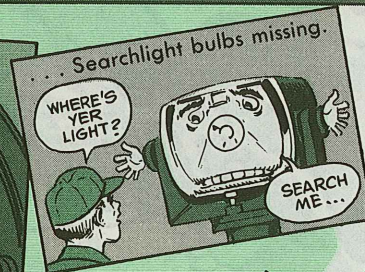
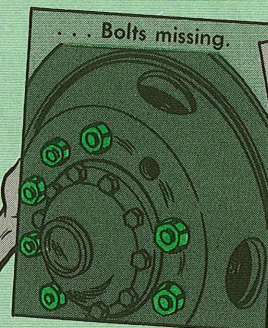
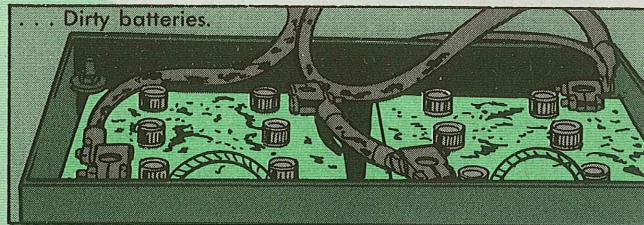
Wouldn't it be nice if you could show your troops how to look for the things the experts find wrong . . . and correct them before they get to the experts?

Like, they're the kind of things operators can look for in their daily checks . . . and shop personnel can spot during periodic services.

IT'S THINGS LIKE THESE
TAKEN FROM RECENT 2404's
AT A BIG POST...

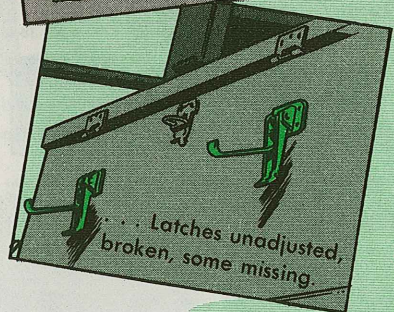
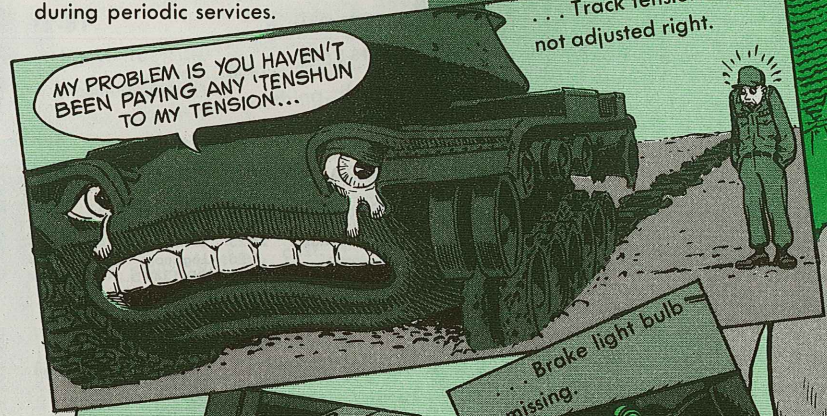
UNDER-
STOOD,
BONNIE!

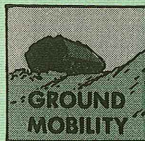
... THAT CAUSE
EQUIPMENT TO
YO-YO BACK TO
THE UNIT AFTER
TURN-IN
INSPECTIONS
ARE MADE!



... Track tension
not adjusted right.

MY PROBLEM IS YOU HAVEN'T
BEEN PAYING ANY TENSUN
TO MY TENSION...





FROM ARMY GREEN TO LEAN AND MEAN . . .

CAMOUFLAGE PATTERN PAINTING

They can't hit you if they don't see you!

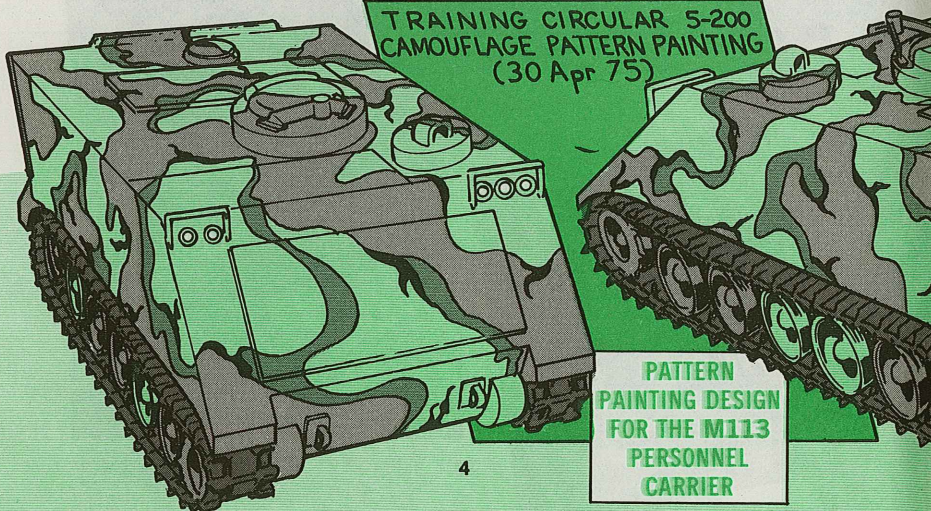
That's the idea behind the camouflage painting you'll be doing on your equipment.

The complete story on the materials needed and how to get the job done is in Training Circular 5-200, Camou-

flage Pattern Painting (30 Apr 75). If your unit didn't get copies, use DA Form 17 to order 'em from your publications center.

Your local command will pass the word on when to paint and what patterns to use. Each pattern (except all white) requires 4 colors chosen

TRAINING CIRCULAR 5-200
CAMOUFLAGE PATTERN PAINTING
(30 Apr 75)



PATTERN
PAINTING DESIGN
FOR THE M113
PERSONNEL
CARRIER

4



specifically by your commander for the terrain in your area. All patterns are available at your local training aids service office (TASO).

In the 4-color design, 2 will be basic colors that'll require about 90 per cent

of the paint. Two other colors will each require about 5 per cent.

Each pattern area has a number and you apply whichever color has been chosen for that number (depending on where you are and when.)

PAIN—BY THE NUMBERS

COLOR	NSN FOR 5 GAL 8010-00-111-	NSN FOR 1 GAL 8010-00-111-
Desert Sand	-8353	-8004
Sand	-8336	-7988
Earth Yellow	-8130	-7968
Earth Red	-8345	-8003
Field Drab	-8129	-7943
Earth Brown	-8338	-7998
Olive Drab	-8069	-7940
Light Green	-8007	-7930
Dark Green	-8042	-7938
Forest Green	-8010	-7937
Black	-8356	-8005
White	(No NSN yet)	(No NSN yet)

PATTERN IS
REPEATED ON
INSIDE OF SURF-
BOARD, REAR DOOR,
AND ALL HATCH
COVERS

5

PAINT THINNERS

Mineral Spirits, Spec TT-T-291

Xylene, Spec TT-X-916

Butyl Cellosolve, Spec TT-E-776B
Thinner, Cellulose-Nitrate Dope,
Spec MIL-T-6095B (For preparing
paint to use on neoprene-coated
taps)

NSN 8010-00-558-7026 (5 gal)
NSN 8010-00-246-6116 (55-gal drum)
NSN 6810-00-584-4070 (5 gal)
NSN 6810-00-290-4166 (55-gal drum)
NSN 6810-00-281-2001 (gal)
NSN 8010-00-162-5289 (gal)

FOR THE PRIMER
YOU'LL NEED **SPEC TT
P-1757, NSN 8010-
00-515-2208** IS FOR
ONE GALLON AND
NSN 8010-00-515-2211
GETS YOU FIVE.

PAINTING TIPS

—Get all dirt and oil off your vehicle. The paint won't stick to a dirty surface.

—Remove all loose or flaking paint. Sand if necessary.

—Remove all plastic letters and insignia and clean the surface with thinner or solvent to remove any remaining glue.

—Cover all grease fittings to prevent fouling.

—Thoroughly stir all new cans of paint before mixing.

—Do not mix one color paint with another. Clean sprayer thoroughly if changing colors.

—Mix the paint and thinner in batches of 3 or 4 gallons for major colors ($\frac{1}{2}$ to 1 gallon for minor colors) and stir thoroughly before each spray cup is filled.

—Adjust paint gun to get the right paint and air mixture.

—Hold the spray gun close to the work to prevent excessive overspray or a spray that's too dry.

—Wipe chalk markings off the vehicle as paint is applied. Don't paint over the chalk... it will flake off later.

HERE'S A CHART ON THE MAN-HOURS AND MATERIAL IT TAKES FOR SOME OF YOUR VEHICLES!

VEHICLE	AVERAGE MAN-HOURS	AVERAGE PAINT (gal)	AVERAGE THINNER (gal)
M35 CARGO TRUCK	15	1.00	.50
M51 DUMP TRUCK	17	2.00	1.00
M60A1 TANK	30	2.16	1.10
M88 RECOVERY VEHICLE	19	1.50	.75
M109 HOWITZER	15	1.00	.50
M109 VAN	18	1.00	.50
M113 PERSONNEL CARRIER	20	.83	.42
M125 CARGO TRUCK	20	.83	.42
M151 UTILITY TRUCK	12	.50	.25
XM163 VULCAN	14	1.00	.50
M561 CARGO TRUCK	12	1.00	.50
M577 C-P CARRIER	20	1.16	.58

—Be sure the new paint coating looks wet on application.

—Do not walk on or touch the coating while it's still tacky.

oops!

—Clean all spray equipment and brushes thoroughly at the end of each day.

—Keep spray guns clean. Run thinner through the gun before each filling or clean it if there are any signs of caking present.

—Cover paint cans and pots to prevent a skin from forming on the paint.

—Maintain good housekeeping in and around the paint mixing and filling area.

BRUSHING'S
YOUR BEST BET
ON SMALL AREAS!
SPRAY PAINT
THE LARGER
AREAS!
FORGET THE
ROLLER BIT!
IT WAS TRIED,
BUT DIDN'T DO
THE JOB!

YOU'LL NEED
THESE PUBS TO
BONE UP ON THE
FINE ART OF
PAINTING!

TM 5-618, Paints and Protective Coatings.

TM 9-213, Painting for Field Use.

TB 750-260, Paint Instructions for Operator and Organizational Maintenance.

TM-244-SERIES 1 1/4-TON TRUCK...

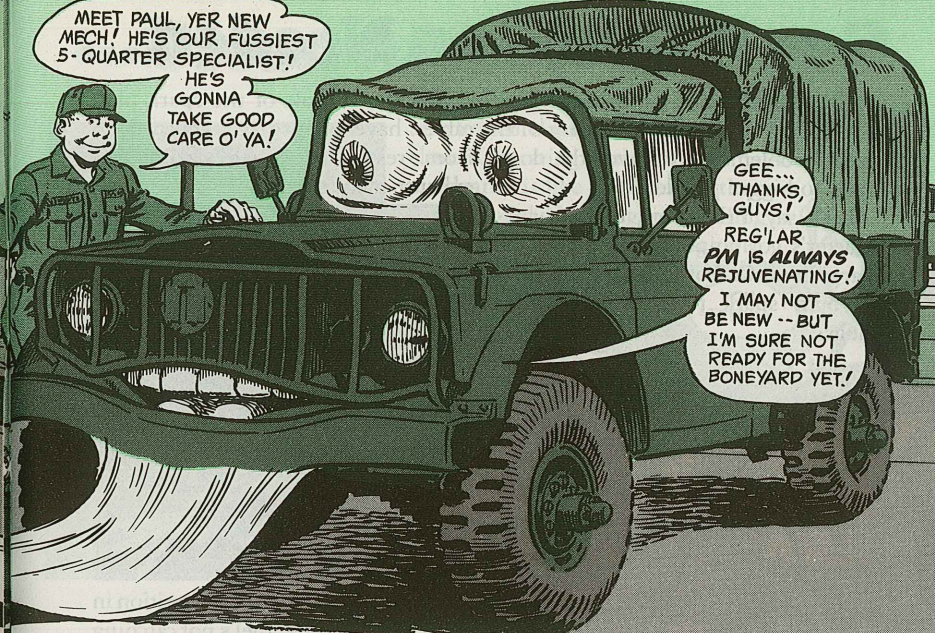
FUSSIN' BEATS CUSSIN'

HI, OL' BUDDY!



MEET PAUL, YER NEW MECH! HE'S OUR FUSSIEST 5-QUARTER SPECIALIST!

HE'S GONNA TAKE GOOD CARE O' YA!



GEE... THANKS, GUYS!

REG'LAR PM IS ALWAYS REJUVENATING!

I MAY NOT BE NEW -- BUT I'M SURE NOT READY FOR THE BONEYARD YET!

All of your M715 1 1/4-ton trucks will be splittin' one of these days. So will the other 5-quarters—the M725 ambulance, the M726 telephone maintenance truck and the contact maintenance truck.

Repair parts will be harder to come by as supply support tapers off. You may not get down to using chewing gum for windshield seals, but you may have to use your good ol' ingenuity

sometimes to keep your 5-quarter on the road.

Until a new replacement vehicle comes along, you'll just have to do the best with what you've got.

"The best" means fussy PM—Preventive Maintenance. This PM is mostly just what the TM's and LO already spell out. Anything less spells trouble.

ENGINE TROUBLE SEEMS TO BRING OUT THE WORST OF EVERYBODY'S VOCABULARY!

... BUT CUSSIN' DOES NOT SOLVE PROBLEMS LIKE—

• Poor power . . .

• Hard Starting . . .

I COULD CRAWL FASTER, YA @*!! @*!!

CHUG! CHUG!

WHY DON'T YA START, YA @*!! # @*!!

RRRR RRRRR

• Gas hogging . . .

• Oil gobbling . . .

2MPG!! WOTTA @*!! !!

• Ruined engines . . .

NOW YA DONE IT-- YA BLANKETY-BLANK!..

URG!

HMMH! 2MPG IS BETTER'N TH' 2MPQ THIS OL' @*!! @*!! @*!! DING BAT GETS!

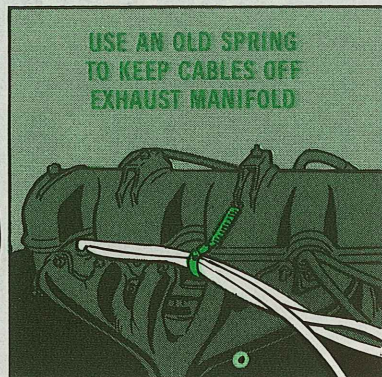
Good Ignition Needed...

And grittin' your teeth is no help, either. Fact is, trying to get along with small problems only leaves the door open to bigger problems.

Let's say, f'rinstance, that your 5-quarter's got no poop in a pull. Or it starts hard. Or both. Could be caused by bum spark plugs. Even wrong plugs.

JUST BECAUSE A SPARK PLUG IS A GOOD SCREW-FIT IN YOUR ENGINE DOES NOT MEAN IT'S THE RIGHT PLUG. USE ONLY THE PLUG SPECIFIED BY YOUR TRUCK'S TM!!

Maybe a couple of the spark plug cables have pooped out—burned up from resting on that sizzlin' hot exhaust manifold.



So you're not getting fuel ignition in all 6 cylinders—the fuel's not catching fire. OK, so that's the reason for poor power and hard starting.

But did you ever stop to think what's happening to the fuel that's not getting burned?

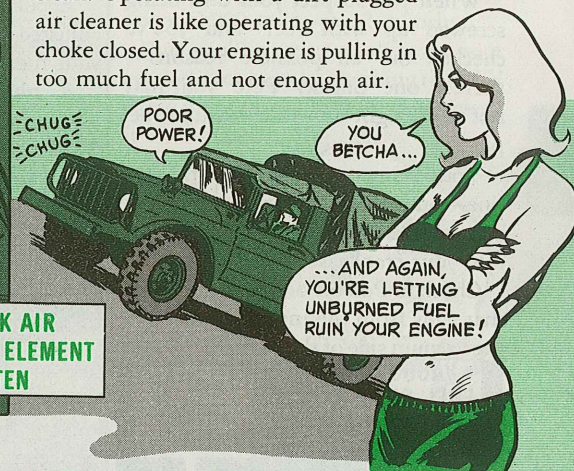
It washes the oil off the cylinder walls. Then you've got metal-to-metal contact between your piston rings and cylinders—no lubrication. Pretty soon, worn out rings and—worse—one shot engine block.



Get the message? When you troubleshoot—and solve—ignition problems, you not only enjoy better engine operation, you actually stretch the life of your engine.

Clean Air Cleaner...

Same goes for keeping your engine air cleaner element in good shape—clean. Operating with a dirt plugged air cleaner is like operating with your choke closed. Your engine is pulling in too much fuel and not enough air.



Adjust Your Carb...

Too much fuel comes, too, from not keeping your carburetor adjusted right. An over-rich mixture of fuel and air only gives you operating trouble, but—in the long run—it's fatal for your engine.

Piston rings and cylinders are not the only things that suffer when poor PM allows fuel to go unburned. That fuel goes on down into the crankcase. It thins the oil, so your crankshaft, cam shaft and other bearing surfaces get real bum lubrication.

Your own nose will tell you when fuel's getting into the crankcase. Just sniff the dipstick when you're checking your oil. You may be able to feel the difference with your fingers, too.

Y'MEAN YA CAN FEEL WHEN FUEL'S GETTIN' INTO THE OIL, CONNIE?

RIGHT ON!... AND ANOTHER WAY TO TELL IS TO SNIFF THE DIP-STICK! YOU CAN SMELL GAS IN THE OIL!

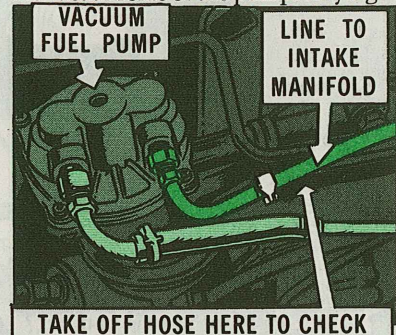


Check the Vacuum Pump...

When you suspect your oil's being screwed up with fuel—and you've checked out all possible reasons—there's one Sneaky Pete you may not've thought of—your vacuum-fuel pump.

Your pump may be working just fine—pumping fuel up to your carburetor. But it could be leaking fuel into your crankcase, too.

Check it. Pull off one end of the line that runs from the intake manifold to the vacuum side of the pump. Any sign



of oil in the line—where only air is s'posed to be going through—means your pump's got a leaking diaphragm. If oil's getting into the pump from the crankcase, fuel is probably getting into the crankcase from the pump.

SO,
REPLACE
THE
PUMP!

Fuel Filter Fails...

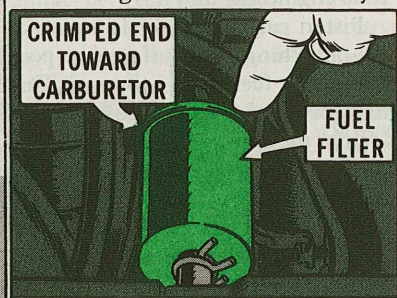
A perfect fuel pump and properly adjusted carburetor won't solve all of your fuel problems.

A plugged fuel filter stops the whole show.



Besides putting on a new fuel filter at every 4,000-mile-or-6-month interval, you can save yourself operating misery by checking the filter in between times. Just take it off, shake the fuel out of it, wipe off the end that goes toward the carb and blow through it. Blowing through opposite from the way the fuel flows may get out any dirt that's giving you trouble.

Make sure, though, that you put the filter back on right. The crimped end of the can goes toward the carb. If you



get the filter on backwards, dirt will stop it up a lot quicker.

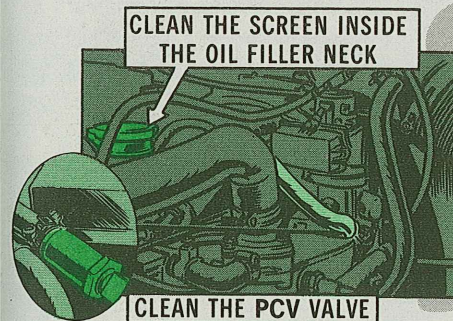
Clean that PCV...

Also often overlooked is the PCV valve—Positive Crankcase Ventilation valve. And the wire mesh tube just inside the rocker arm cover where you put engine oil in.

Part of your 4,000-miles-or-6-months service is cleaning the PCV valve, the wire mesh and the hose that

runs from the oil filler tube to the PCV valve. And you put in a new PCV valve every 12,000-miles-or-12-months.

But you'll save yourself from poor engine operation by checking the PCV valve more often. Take it off and clean it in solvent.



SHAKE IT—
IF IT RATTLES
INSIDE, IT'S
PROBABLY
OK!

IF
YOU'RE IN
DOUBT...
REPLACE
IT!

2½-TON MULTIFUEL TRUCK . . .

TOO MUCH FILTER

When you're ordering the air filter element for the M35A1 and -A2 series, be sure that's all you ask for. It's Filter Element, NSN 2940-00-804-7898, on page 38, TM 9-2320-209-20P (Oct 72).

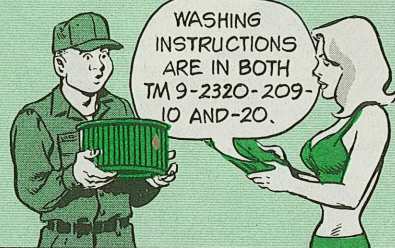
Some guys are ordering Air Cleaner, Intake, NSN 2940-00-129-5339, listed on page 37. This'll bring you the who-o-o-ole thing—shell assembly, element, gasket, head and latch.

And remember—that element's washable, so maybe you won't have to replace it after all.



JUST ORDER THE FILTER ELEMENT—OR
HOW ABOUT WASHING THIS ONE?

WASHING
INSTRUCTIONS
ARE IN BOTH
TM 9-2320-209-
10 AND -20.



SO WHAT'S A LEAK?

Dear Half-Mast,
We're having a lot of local "static" on leaks. Everybody's in the act, and we don't have anything official on this. Most of us maintenance types can tell if a seal should be replaced or not, but some inspectors are calling it a leak when it's only wet in the area. Our main concern is to keep the seal in as long as it's doing the job. Some guidance in this area will be greatly appreciated.

CW4 B.L.M.

WELL,
SPECIALIST...
HOW WOULD
YOU CLASSIFY
IT?

DEFINITELY A LEAK,
SARGE... ACCORDING
TO MY WATCH -- IT'S
MORE THAN FIVE
DROPS A MINUTE!

Dear CW4 B.L.M.,
The best definition of a leak I know is this:

"A leak is considered a loss of fluid or gas at a rate which is readily detected or seen. (Five drops per minute from a cooling system, crankcase, gearcase, and gun recoil is considered a leak. Fuel or brake system leaks, no matter how minor, will render the item inoperable.) For aircraft, the technical manual should be used for specific standards and limits."

This is para 4e of the DA Pamphlet 750-4 (Apr 74), Commander's

Maintenance Evaluation Techniques. The same definition is in para 1-5e of DA Pam 750-18 (Mar 73), Commander's Maintenance Guide.

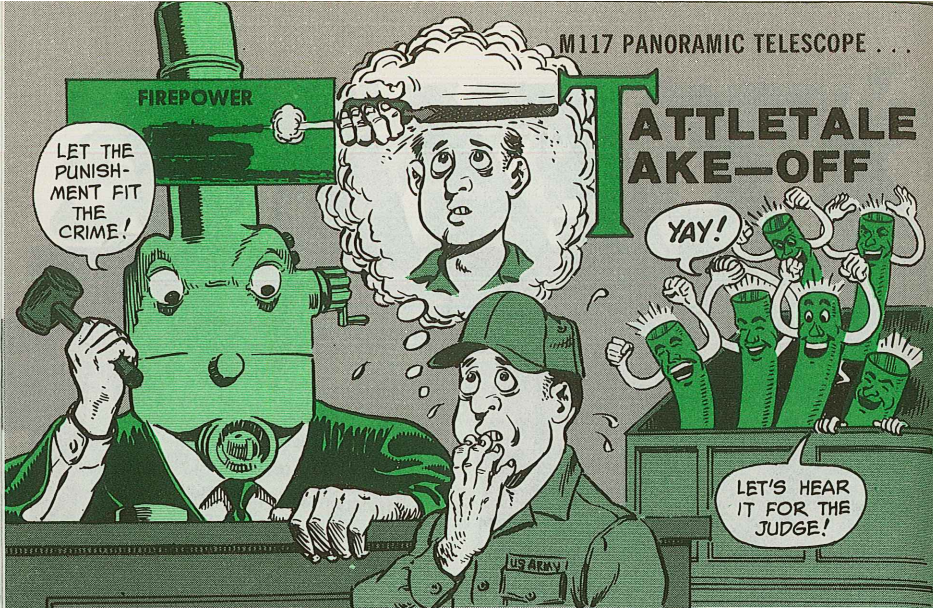
Seals are supposed to let a little fluid through. That's how they keep from drying out. So a seal that's discolored or a little damp doesn't need to be replaced. This condition is called a seep—and it's OK.

A gas leak (like in exhaust gas) is usually a judgment call. Is it dangerous to guys in the vehicle?

'Course, any leak in a fuel or brake system spells bad news. You fix it immediately.

Half-Mast

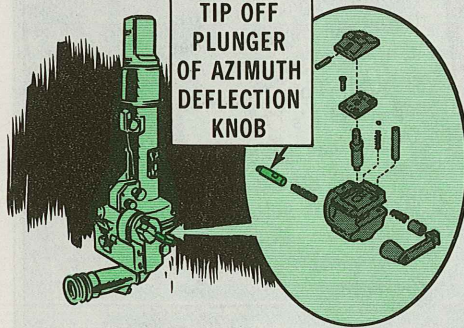




Not every "field fix" improves the operation and maintenance of your equipment. Sometimes fixing a \$2 part "fixes" a \$2,000 item. But good! It has to go to depot for overhaul.

For instance, some SP howitzer crewmen have been filing or grinding the plunger point off the azimuth deflection knob assembly. They think this'll let 'em traverse the 'scope faster.

**NEVER FILE
TIP OFF
PLUNGER
OF AZIMUTH
DEFLECTION
KNOB**



First off, the panoramic telescope's off limits to you for teardown maintenance. Second, filing off the point's not the answer for fast swinging 'scope action.

Step 8, Table 2-6 in Ch 1 to TM 9-2350-217-10 (Dec 69) has the word. The plunger clicks off every 5 mils it's turned when the azimuth deflection knob is in the DIRECT position. You can't use the 'scope for this operation if the plunger point's missing.

When you put the azimuth deflection knob in the INDIRECT position, the plunger is disengaged and you get a no-click, smooth, fast 'n' easy operation.

Smart PM is keeping your hands and tools out of places they don't belong.

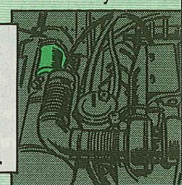
Follow the TM and ask questions about field fixes before you make 'em. It saves downtime and parts.

M551 SHERIDAN—

AIR CLEANER FILTER FACTS

Either you already have a pre-air cleaner on your Sheridan or you'll get one as soon as support lays MWO 9-2350-230-40-5 on you.

**WHEN
YOU
GET A
PRE-AIR
CLEANER ...**



**... YOU'LL
NEED
THIS
NEW
FILTER
ELEMENT**

new filter is covered in TM 9-2350-230-20-1 (Feb 75) on pages 2-128 and 2-129.

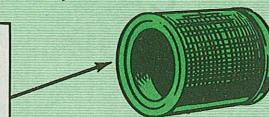
If you have the old set-up without the pre-air cleaner, stay with replacement filter NSN 2940-00-782-1264 as

listed on page 156 on your TM 9-2350-230-24P/1.

The only tricky thing about this is that you'll need a different filter element once the pre-air cleaner has been put in.

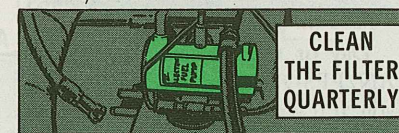
The element you need is NSN 2940-00-052-6033 (P/N 11662983).

Organizational maintenance on the



FILTER FOLLOW THROUGH

Now you can follow through on servicing the filter on the electric fuel pump of your Sheridan personnel/coolant heaters.

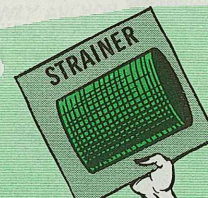


On page 2-27 of your TM 9-2350-230-20-1 (Feb 75) it says to clean the filter quarterly. On page 2-277 it says

to use dry cleaning solvent or mineral spirits paint thinner and dry with low-pressure air.

But nothing tells you how to get another gasket in case it gets ruined when you take the pump apart or where to get another strainer if you find the one in the pump is shot.

So, here's the good news: Order Gasket NSN 5330-00-741-3774 and Strainer NSN 2910-00-679-9721.

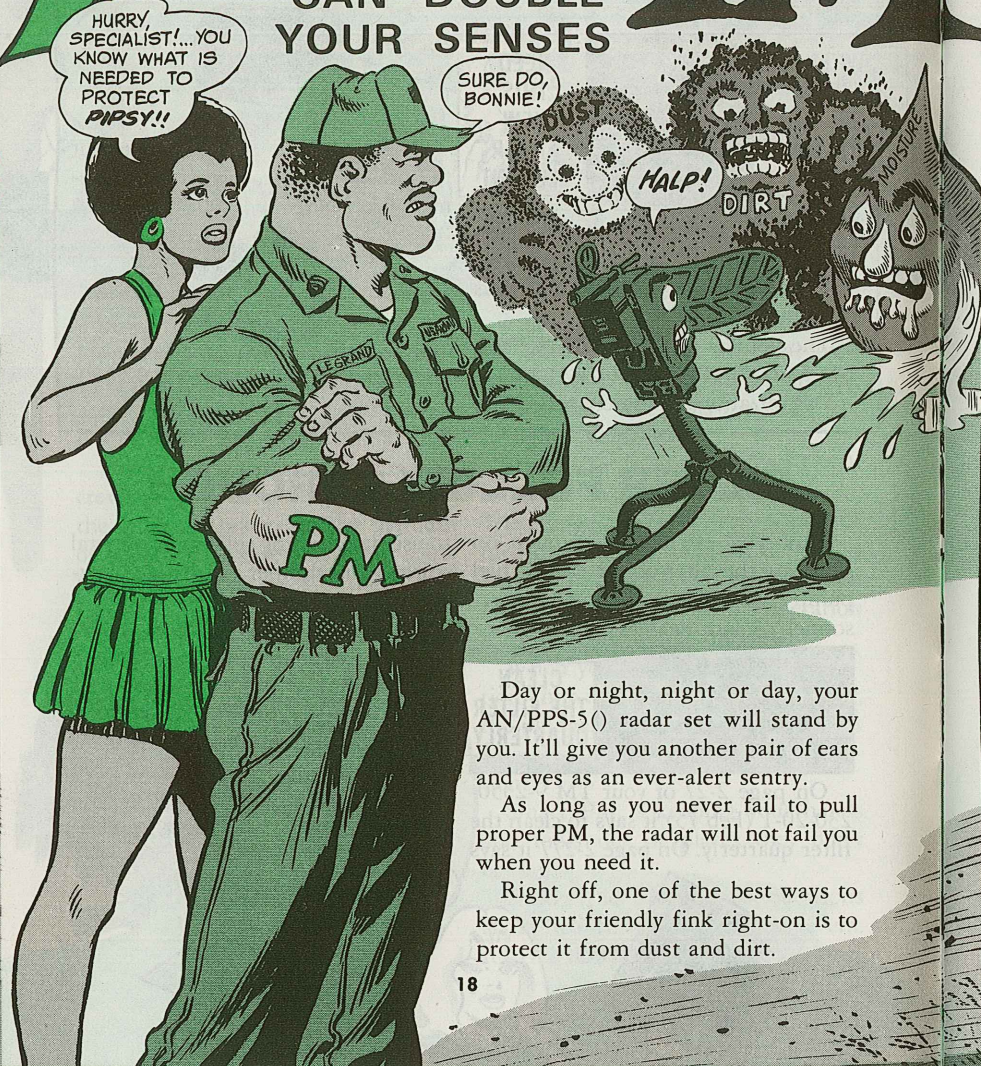


THEY'RE GOOD
IN THE **AMDF!!**



ELECTRONICS **PIPSY-5** PM

**CAN DOUBLE
YOUR SENSES**

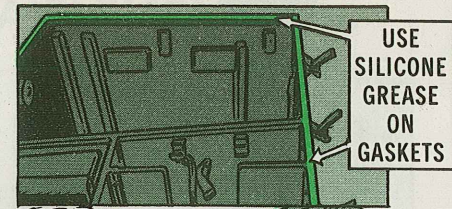


Day or night, night or day, your AN/PPS-5() radar set will stand by you. It'll give you another pair of ears and eyes as an ever-alert sentry.

As long as you never fail to pull proper PM, the radar will not fail you when you need it.

Right off, one of the best ways to keep your friendly fink right-on is to protect it from dust and dirt.

eyeball the gaskets in the CY-3872() transport case and other components' access doors to make sure they make a snug fit. To give 'em added togetherness, put a thin coat of silicone grease NSN 6850-00-880-7616 (8-oz tube) on the gaskets.



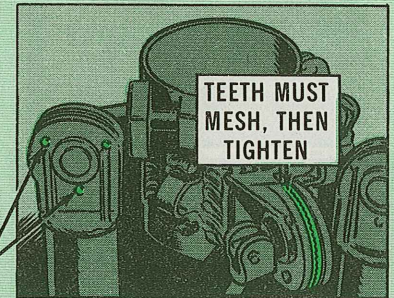
**USE
SILICONE
GREASE
ON
GASKETS**

THIS TENDER TREATMENT WILL ALSO GIVE THE **PIPSY-5** INSIDE PROTECTION FROM OUTSIDE **MOISTURE!**



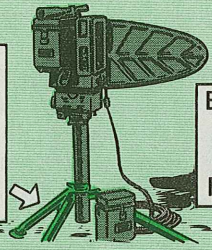
MT-2958 () TRIPOD

When you're setting up the MT-2958() radar tripod, spread the legs a little before removing the waveguide horn and the telescope from the MX-7565() tripod column assembly. Otherwise, you might work up a sweat and damage these components since there isn't enough room to get them out.



**TEETH MUST
MESH, THEN
TIGHTEN**

**WHEN
SETTING
UP,
SPREAD
LEGS
A LITTLE**



**EASY—
DON'T
POP
RIVETS**

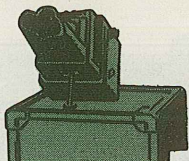
Also, be sure the tripod gear teeth mesh before you tighten the leg locks. This can help you save rivets, gear teeth and bolts.

After you get the tripod set up, anchor it to the ground with spikes, sandbags or some other handy heavy objects. This'll keep your Pipsy from getting tipsy in the wind.

Then, back off the heavy-handed leg spreading. You can pop the rivets and end up with a teetering tripod.

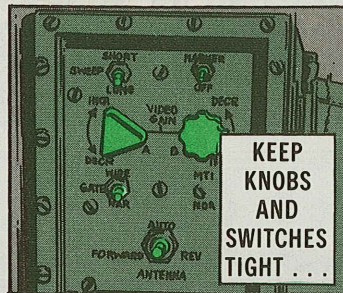
NO, NO, CARMICHAEL! YOU **ONLY** ANCHOR THE TRIPOD-- NOT THE WHOLE UNIT!



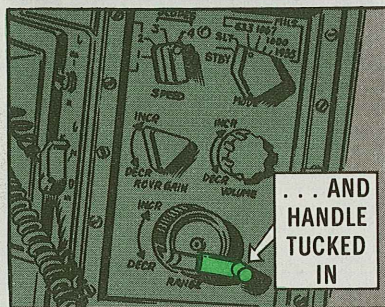


C-4610 () CONTROL-INDICATOR

The C-4610() control-indicator's switches and knobs have a way of working loose. Tighten them and dab the screws with adhesive sealant NSN 8030-00-081-2338 (50-cc). Regularly inspect 'em to see that they're doing their thing . . . holding firm.



**KEEP
KNOBS
AND
SWITCHES
TIGHT . . .**



**. . . AND
HANDLE
TUCKED
IN**

If you're putting the viewing hood on the control-indicator, take care when it comes to the RANGE switch. You can damage or break the switch.

Same goes for the RANGE crank. It'll get broken if the handle is left sticking out, especially when you replace the C-4610() cover. So, fold the handle over and tuck 'er in.

Take care of the exposed waveguide horn window, and keep it clean. If it gets broken, you'll have to replace the horn.

WATCH THAT WINDOW . . .



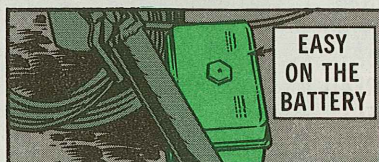
. . . AND KEEP IT CLEAN

Since the Pipsy-5's gears are plated they need no lube, graphite or the like. Putting grease on the gears can bind 'em and knock out your set.



**NO GREASE
ON GEARS**

The BB-622 battery is a rugged power pack, but rough handling can puncture the cells. Damaged cells can kill the battery and maybe injure you from splashed electrolyte.



**EASY
ON THE
BATTERY**

One warning you better believe is that on electromagnetic radiation on page A-B in Ch 2 to TM 11-5840-298-12 (Jun 67).

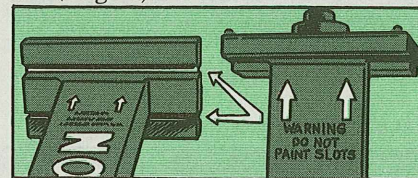
Never stand closer than 2 feet in front of the radar set for more than 10 minutes when it's transmitting. If you feel the slightest warming effect, move away, pronto!

TIPSY ANTENNA ELEMENT TIPS

When you're touchup painting your AN/TPS-21 or -33 radar set, keep those brush bristles away from the AT-808 antenna element's window slots.

Painted slots will make for poor performance of the equipment.

So, back off with the paint and make sure the element has a warning decal or stencil—DO NOT PAINT SLOTS—like it says in TB 43-0001-9-4 (Aug 74).



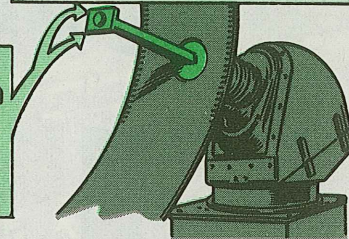
**WARNING
DO NOT
PAINT SLOTS**

While you're at remembering good PM, remember: Never use the AT-808 for a handle. You can bend or break it.

Heed the big letters on both sides of the element—NO HANDLE.



NO HANDLE



GETTING A CHARGER ADAPTER

Dear Half-Mast,

How do we get the NATO adapter for the PP-1578()/PD radiac detector charger? Units here keep getting giggered for not having an adapter.

SFC J.W.S.



**YOU CAN GET
ADAPTER 3 WAYS**

Dear Sergeant J.W.S.,
There's no NSN for the NATO (or United Kingdom) adapter, and it's not in the Army supply system as a separate item of issue.

You can get one through cannibalization, or by replacing the charger, NSN 6665-00-542-1177, which costs \$12. Or you might ask your supply support to order an adapter for you from the manufacturer.

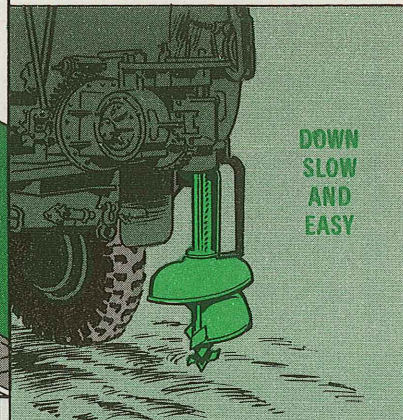
**BE SURE TO
INCLUDE THE FULL
MODEL NUMBER OF
YOUR CHARGER.**



**COMBAT
SUPPORT**
**M764 EARTH BORING
MACHINE**

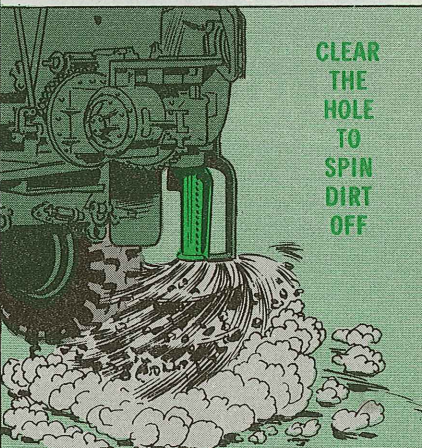
**=BUMP,
GRIND=
AND
STRIP**

Slow and easy is the way to go.



**DOWN
SLOW
AND
EASY**

When the auger is full of dirt, just raise it clear of the hole and spin the dirt off.

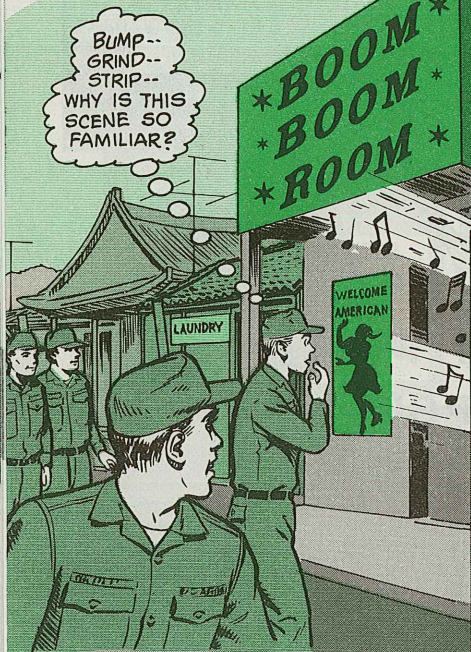


**CLEAR
THE
HOLE
TO
SPIN
DIRT
OFF**

And don't load the auger above the bumper spring.

Save the bumps and grinds for the Boom-Boom Room.

TM 9-2320-209-10 (Feb 65) and Changes 1-10 give you the scoop on operating your auger.

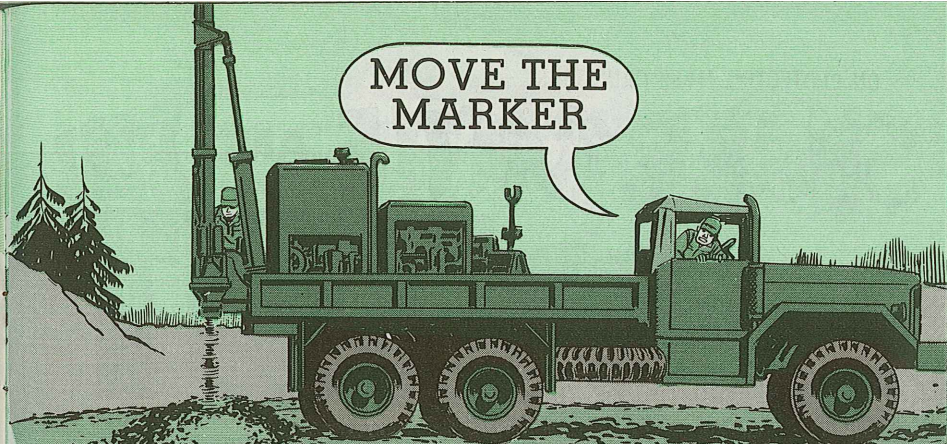


Those words sound out of place when you're digging post holes? They sure are.

Some guys raise the auger out of a hole they're digging and slam it against the housing. After a few of these bumps, you hear the grind of stripped gears.

Slamming the auger doesn't give the friction clutches time to disengage, and the gear teeth get sheared.

**MOVE THE
MARKER**

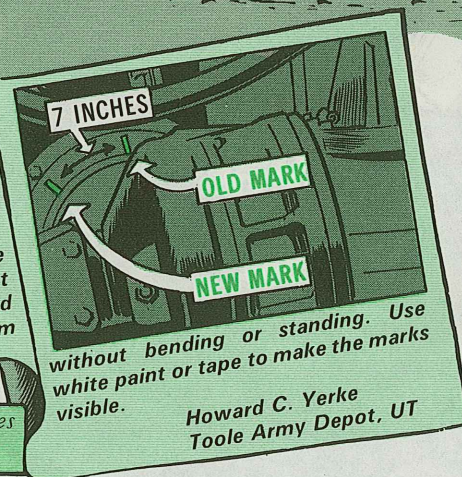


Dear Editor,
Here's a tip to help ease the job of aligning the mast of the Texoma Model 254-10 earth auger before lowering it to the cradle.

There's a set of marks on the right angle drive assembly that should be lined up before lowering the mast. Otherwise, the mast can hit the fuel tank.

But the mark is hard to see from the operator's seat. If you make a new set of marks about 7 inches around toward the operator, he can see them

(Ed Note—Good idea. The head shed gives the go-ahead for painting these marks.)



WATER CAUTION DECALS

The warning decal for water purification units mentioned in PS 266 on page 65 now has other uses.

You can add the decal to any piece of equipment that has water left in its pipes after shutdown and is likely to freeze . . . like CO₂ generating and charging plants, portable 8-showerhead bath units and M532 single trailer mounted laundry unit.

To get the decals, write to:

Commander
US Army Troop Support Command
ATTN: AMSTS-MFP
4300 Goodfellow Blvd
St. Louis, MO 63120

In a hurry? Call AUTOVON 693-2503.

SHAKE, RATTLE AND ROLL IS OUT



Shaking may be OK for medicine, milk shakes and some cocktails, but it really doesn't do much for the canisters on your M24, M25, or M25A1 protective masks.

Sure the TM's on the masks say to give the canisters a shake to test for the rattle of loose particles inside. Then, if a roll of particles results, the canister's no good. However, new inspection criteria make it easier to decide when to replace the canisters by taking the shakes out of inspections.

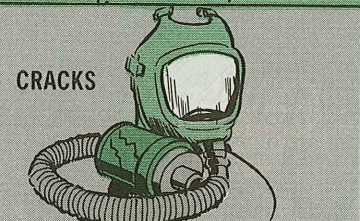
Now, you tank and aircraft CBR types replace the canisters on the masks only for major defects such as rust or mechanical damage.

So, during your next scheduled operator PM, check these critical areas.

Eye the canister nozzle for damage, heavy rust or loose connection with the canister.



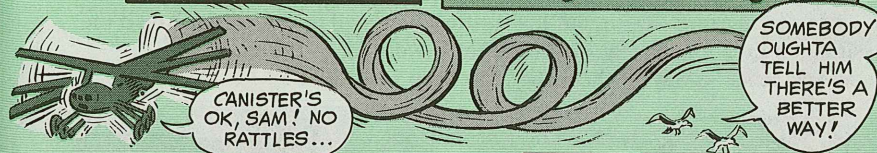
Cracks, breaks or other damage or dents over 1/4 inch deep. Dents under 1/4 inch deep are not considered defects.



Rust or pitting over large areas of the canister body.



Over 10 per cent of the seams or joints covered by corrosion, pitting or scale rust.



Valve disc fails to cover the entire opening at the inlet end of the canister.



That's it. Shaking is out. As long as the canister lot number is good in SB 3-30-2, Serviceability Lists for Protective Mask Canisters and Filter Elements (Jul 74), and no major defects are found during inspection, the canister is usable.



A new TM on the masks will have the new inspection criteria. Until then, get a copy of SB 740-94-120, Storage Serviceability Standard for Protective Masks (All Items) and Ancillary Items (Aug 74). This pub has the new inspection material and more info on the masks. It'll save you lots of time and effort during your next inspection.



BEATS THE
M13 DECON

HALP!
MERCY... PITY, FELLAS!
THIS HEAT IS
KILLING ME!



Your M13 decon and reimpregnating kit takes a beating from heat. Heat won't ruin the kit, but it will affect how well the kit works. And if the situation calls for that kit . . . you want it working to the max! Here're some ways to help the M13 keep its cool . . .



1. Check your storage area. If the temperature tops 120° F, heat becomes an M13 killer.
2. Never store the kit in direct sunlight.
3. Before you lay the kit down, touch the surface with your bare hand. If the spot is too hot for your hand, it's too hot for the kit.



4. Leave the package or carton vapor barrier tapes on till you need the kits.
5. Keep the kits away from flammable materials in storage.
6. If you're storing kits in a warehouse, put them on pallets with the pallets separated by at least 5 inches.

UNTIL THE
EXPERTS FIGURE
OUT WHY THE
HEAT BEATS THE
M13... PROTECT
THAT KIT!



YOUR M12A1 DECON LEAKING?

Next time you're giving that M12A1 decontaminating apparatus the PM once-over, check the seams. There may be leaks from cracks or seams in the tank unit.

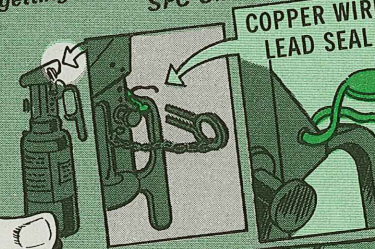
The leaks usually occur under the tank drain valve in the welded seam which joins the side and bottom of the tank. Leaks can also start in cracks in the tank wall.

If you've got a leakage problem, check Chapter 4, para 4-8 in TB 43-0001-36-3 (5 Jul 74), for a quick fix. That's the EIR and Maintenance Digest: Chemical Equipment.

SEAL THAT M11 DECON

Dear Half-Mast,
The NSN for the lead seal on the M11 decon apparatus is not getting to the units. I know it's in Change 1 to TM 3-4230-204-13, but maybe if you print it in PS we'll have more luck getting the word out.

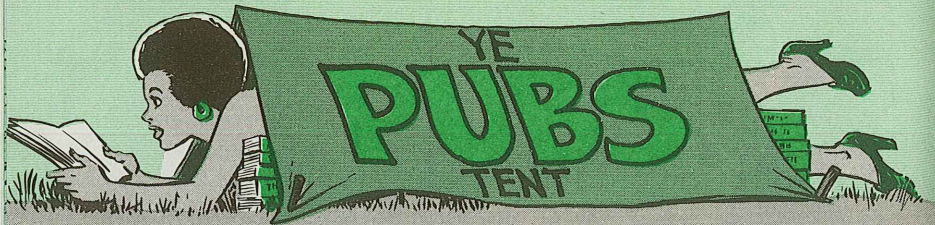
SFC C.R.B.



HERE IT IS...

NSN 5340-00-835-9815
GETS THE 2-STRAND COPPER WIRE
LEAD SEAL USED ON THE
M11 DECON APPARATUS!





This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Nov 74) and Ch 1 (Feb 75), TM's, TB's, etc.; DA Pam 310-6 (Jul 74), and Ch 1 (Jan 75), SC's and SM's; and DA Pam (C) 310-9 (Aug 74), COMSEC Pubs.

TECHNICAL MANUALS

TM 746-234 Apr Presser & Pkg Redeploy Retrograde Materiel, LCSS
TM 3-6665-303-10 Feb Calculator ABC-M28A1
TM 5-4210-213-24P Mar Fire Truck Pump; 500-GPM 400-Gal Tank
TM 5-4320-234-12 Mar Centrifugal GED 1500-GPM (Peabody Barnes US90CCG-1)
TM 5-4830-230-13 Mar Tank-Pump Unit Truck Mount Advance Ind 1100
TM 5-5420-203-24P Mar Bridge Armored-Vehicle Launched; Aluminum 60-Fl, for use with M-48 and M-60 Launcher
TM 5-6115-425-20P Apr Diesel Generator Set 60KW 120/208-240/416-V SF-60MD/CIED and HF60MD
TM 9-1015-200-ESC Mar 81-MM Mortar M29, M29A1
TM 9-1315-249-12AP Apr 81-MM Mortar Training Device
TM 9-1425-380-10-1 Mar PERSHING
TM 9-1425-470-L Apr Pubs for TOW
TM 9-1425-550-L Mar List of Pubs for LCSS
TM 9-1430-466-24P Mar LANCE
TM 9-1430-532-14P Apr IMPROVED HAWK
TM 10-3930-632-12 Apr Fork Lift Truck GED 2000-Lb Cap, Army Model MHE-229
TM 11-4940-202-24P Mar Electronic Shop AN/MSM-16
TM 11-5805-347-24P Mar Telephone Term AN/FTA-15A
TM 11-5806-647-14 Apr Order Wire Intercom Termination Units
TM 11-5810-271-12P Apr TSEC/KG-30/33/34 Series Expts.

TM 11-5810-272-12P Apr TSEC/KG-31/35 Series Expts.
TM 11-5810-274-12P Apr TSEC/KG-20A/33A/34A Series Expts.
TM 11-5810-275-12P May TSEC/KG-31A, TSEC/KG-31A-2, -31A-12
TM 11-5815-283-12 Mar AN/FGC-70, -70X teletypewriter sets
TM 11-5815-305-14P Mar PP-3424A, B power supplies
Ch 3, TM 11-5815-334-12 Apr AN/GRC-142J, -122J, radio teletypewriter set
Ch 3, TM 11-5820-598-12 Apr AN/FRT-77 radio transmitting set
Ch 3, TM 11-5820-599-12 Apr AN/FRT-77 radio transmitting set
Ch 3, TM 11-5820-601-12 May AN/FRR-79 radio receiving set
Ch 1, TM 11-5820-820-12 Apr AN/URC-80 (V) 1, 3 radio sets
TM 11-5825-231-24P-1 Apr Direction Finder Sets
TM 11-5895-241-20P Apr Commo Control Set AN/FSW-8(V)
Ch 2, TM 11-5895-441-10 May AN/GLQ-3 countermeasures set
Ch 2, TM 11-6130-250-15 Apr PP-4127/U battery charger
Ch 2, TM 11-6130-266-15 Apr PP-6224/U power supply
Ch 1, TM 11-6140-203-15-1 Apr Nickel-Cadmium Batteries (general)
Ch 2, TM 11-6140-203-15-2 Apr Aircraft Nickel-Cadmium Batteries
Ch 2, TM 11-6140-203-15-3 Apr Nonaircraft Nickel-Cadmium Batteries
Ch 3, TM 11-6140-208-15 May BB-451/U storage battery
Ch 2, TM 11-6140-214-15 Apr BB-643/PPS-5 battery assembly
TM 11-6525-202-12 Mar X-Ray AN/TAQ 2
TM 11-6615-204-12 Mar AN/ASW 12(V) 2 auto flight control system
TM 11-6625-230-24P Mar Meter, Audio Level ME-71/P/CC series
TM 11-6625-412-24P Mar Radio Test Set AN/URM-44
TM 11-6625-648-24P Mar Test Set,

Telephone AN/PTM-7
TM 11-6660-228-10 May Radiosonde Set AN/AMT-4D
Ch 8, TM 55-1510-201-10/4 Apr U-8D, RU-8D and U-9C
Ch 5, TM 55-1510-209-20/2 Apr RU-21B and RU-21C
Ch 6, TM 55-1510-209-20/3 Apr U-21G and RU-21E
Ch 1, TM 55-1510-209-20P Apr U-21 series aircraft
Ch 1, TM 55-1520-214-20 Apr OH-6A
Ch 1, TM 55-1520-217-CL-1 Mar CH-54A
Ch 1, TM 55-1520-228-20P Apr OH-58A
TM 55-2300-216-15-1 May Transport Guidance Artillery M107, M110, M110E2
TM 55-2320-233-15-1 May Transport Guide Cargo Truck 8-Ton

MISCELLANEOUS

AR 220-1 Mar Unit Readiness Reporting
AR 710-13 Apr Forecast of Dry Battery Requirements
CTA 50-913 May Office Furniture, Equipment
DA Cir 700-18 Mar Preventive Measures For Improved Army Logistical Support
DA Form 2715 Jan Replaces DA Form 2715, 1 Jul 73 which is obsolete, (AR 220-1)
DA Pam 750-32 Apr M551 Sheridan PM
FM 38-24 May Classes of Supply
FM 10-526 Apr Airdrop Rigging 5-Ton Truck
LO 10-3930-632-12 Feb Fork Lift Truck GED 2000 Lb, MHE-229
TB 34-9-345 May Helicopter OH-58 Series
TB 9-1315-248-20 Mar Inspect 105-MM: APDS-T, M392-Series M60A1 Tank
(C) TB 11-5810-214-14-2 Feb Gen Maint Info TSEC/KW-26 (I)
(C) TB 11-5810-222-14-2 Mar Gen Maint Info TSEC/KG-3/13
(C) TB 11-5810-225-14-2 Feb Commo-Sec TSEC/KY-3/3A (U)
TB 11-5810-227-14-2 Apr TSEC/HW-8 COMSEC Equipment
TC 17-15-2 Mar Maintenance Tips For Tank Platoon Leader

Sign Off Red X

The entries on the DA Form 2408-13 on page 37 of PS 272 (July 75 issue) are way out—and off. Ignore 'em. The point is, make sure aircraft grounding conditions have been corrected and noted in block 18 and signed off on by an inspector. The mechanic's signature in block 19 and his initial over the status symbol in block 16 are also required.

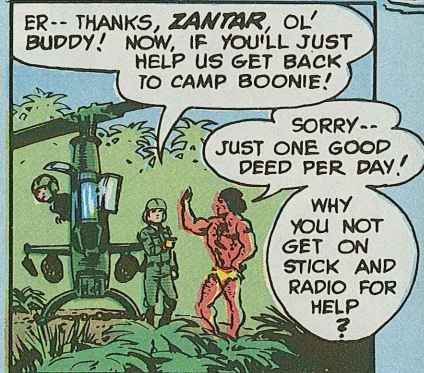
CVC Helmet Repair Parts

Have some DH-132 combat vehicle crewman's helmets you can't get repairs for?

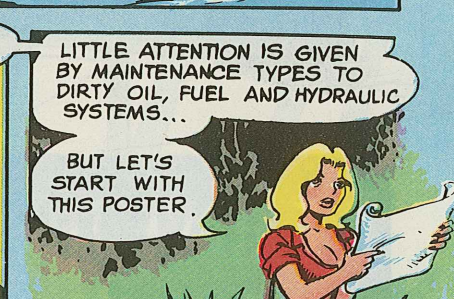
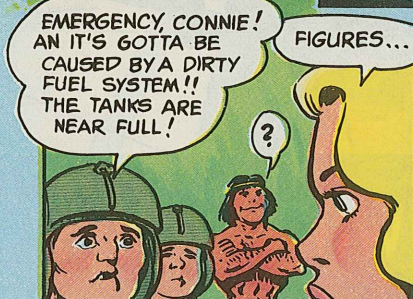
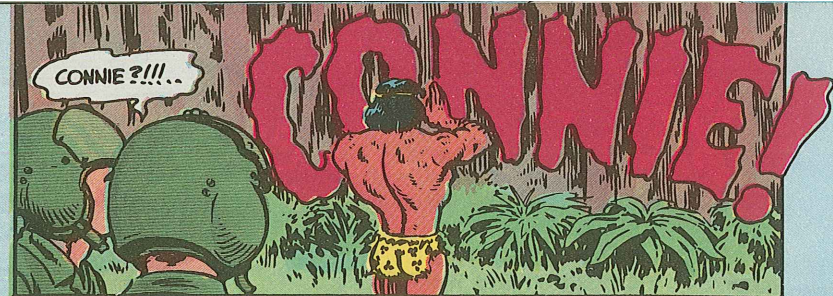
Sweat no longer—TM 10-8400-201-23, Ch 3 (Oct 73), has the parts and numbers for everything except electrical items.

Electrical components of Headset-Microphone kit MK-1697/G are in TM 11-5965-286-14 (Jan 74).





CONNIE!

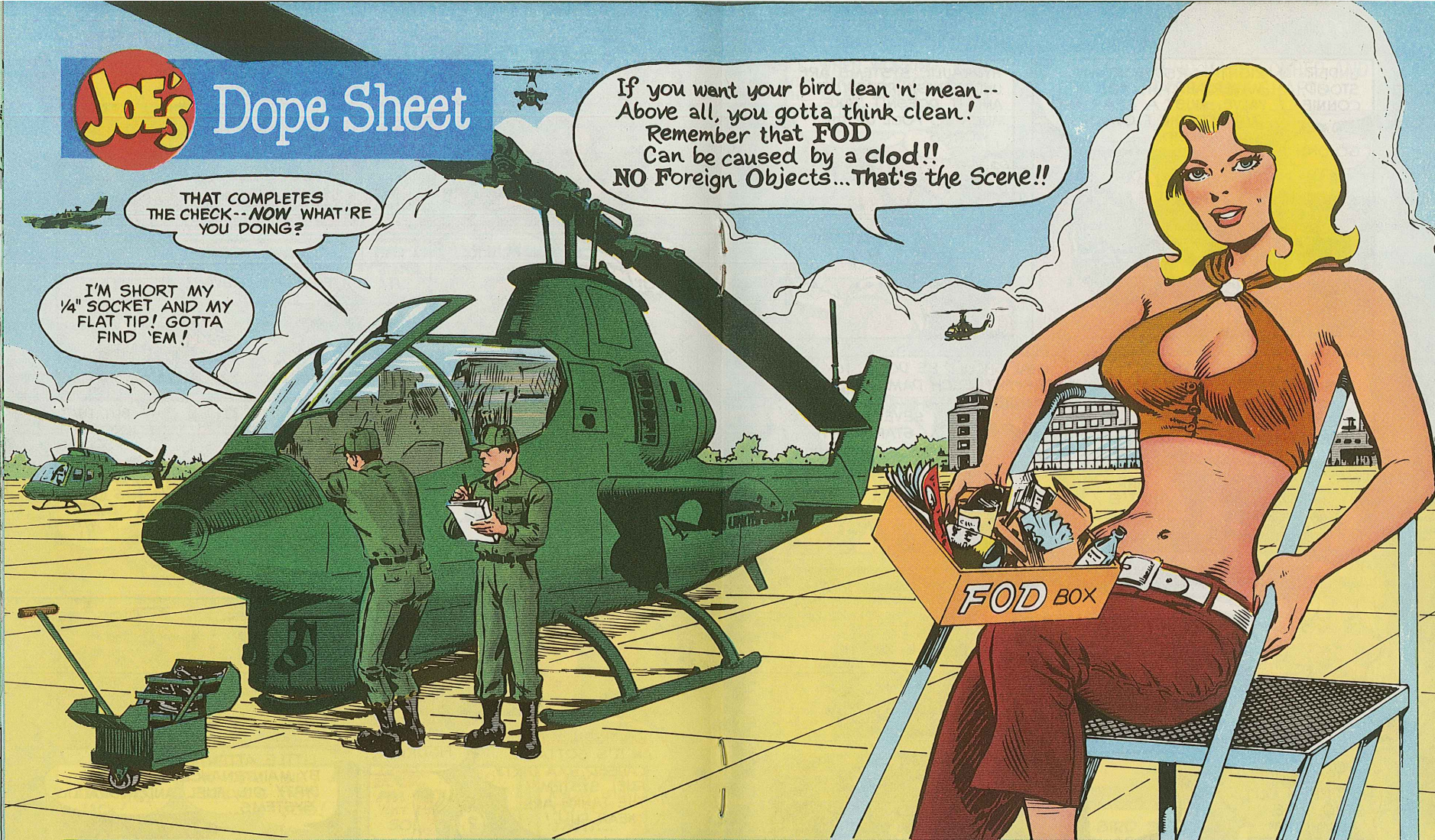


Joe's Dope Sheet

THAT COMPLETES
THE CHECK--NOW WHAT'RE
YOU DOING?

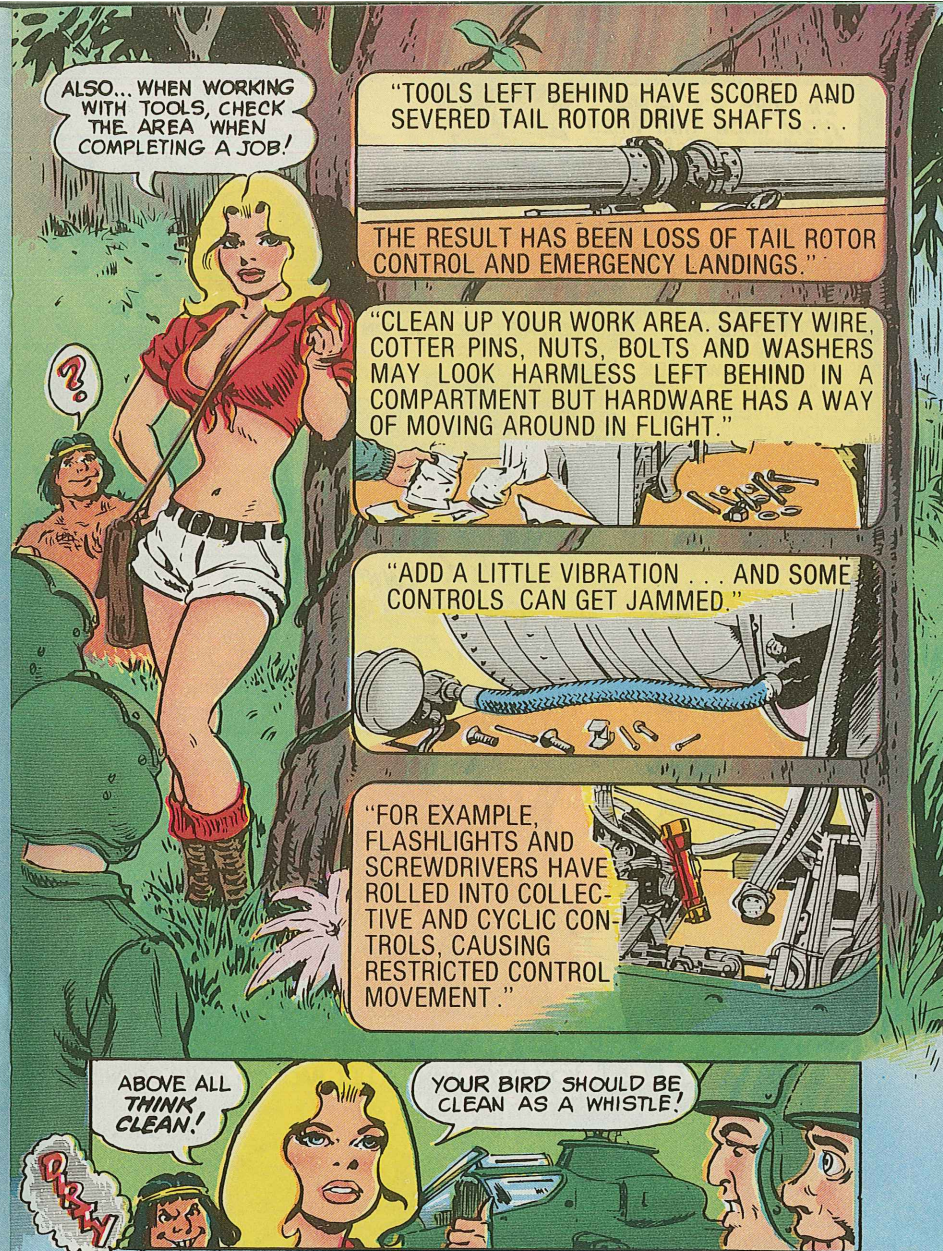
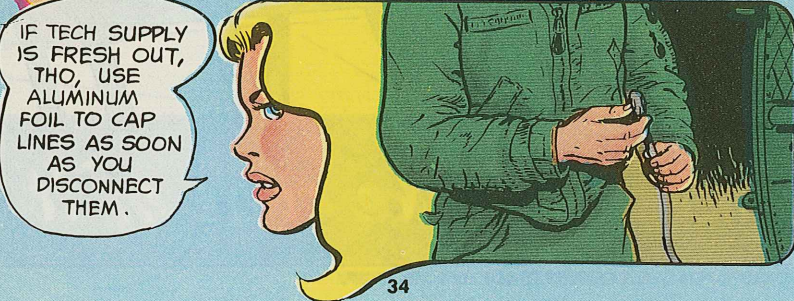
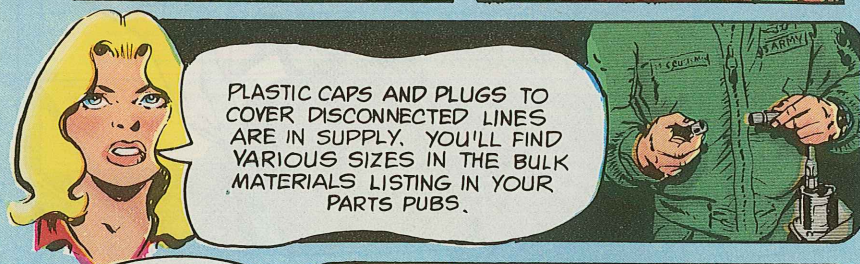
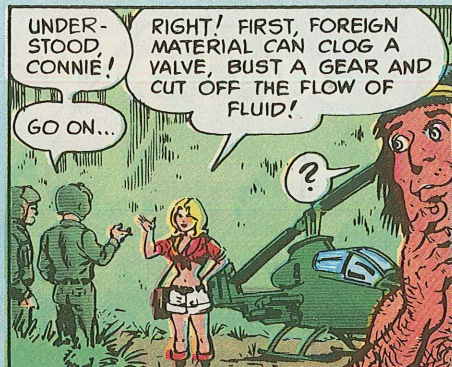
I'M SHORT MY
1/4" SOCKET AND MY
FLAT TIP! GOTTA
FIND 'EM!

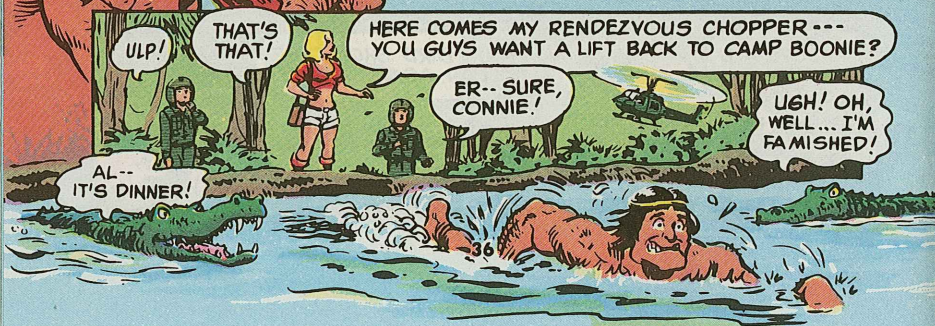
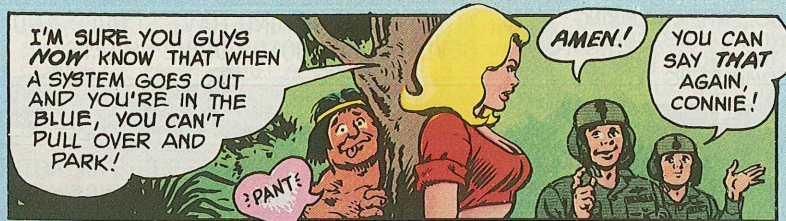
If you want your bird lean 'n' mean--
Above all, you gotta think clean!
Remember that **FOD**
Can be caused by a clod!!
NO Foreign Objects...That's the Scene!!



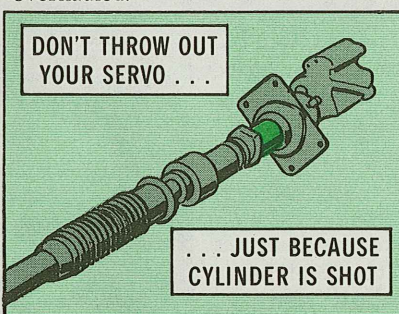
WE HAVE THE WORLD'S BEST EQUIPMENT ...*Take care of it*

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.





Keep turning in the servos on your UH-1, Huey types, because they can be overhauled.



'Course the SMR code (source, maintenance and recoverability) in TM 55-1520-210-20P (Apr 74) says that servo cylinder, P/N 204-076-052-9, is not recoverable. That cylinder, tho, is only part of the servo cylinder assembly, P/N 205-076-038-7, NSN 1650-00-183-4426, which is recoverable.

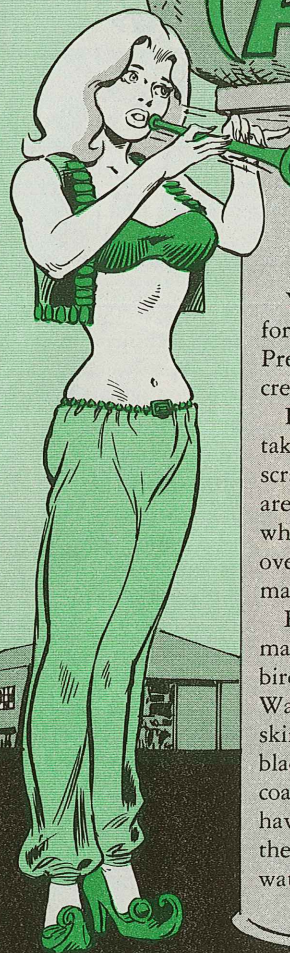
So, if both part numbers are stamped on the data plate, use only the assembly number on your paperwork. That's the way to help keep the supply pipeline filled.

NO LIMIT

Skip the 2-year replacement of Cobra (AH-1G) seat covers called for on Page 3-25.3 of TM 55-1520-221-20 (Sep 71). The pub is being changed. The entire twenty-two hundred hour inspection is kaput. Unlike other covers stretched between metal tubing, the Snake cushions carry the load. Replace the covers on a condition basis.

BE YOUR OWN INSPECTOR . . .

The Cobra (AH-1G)



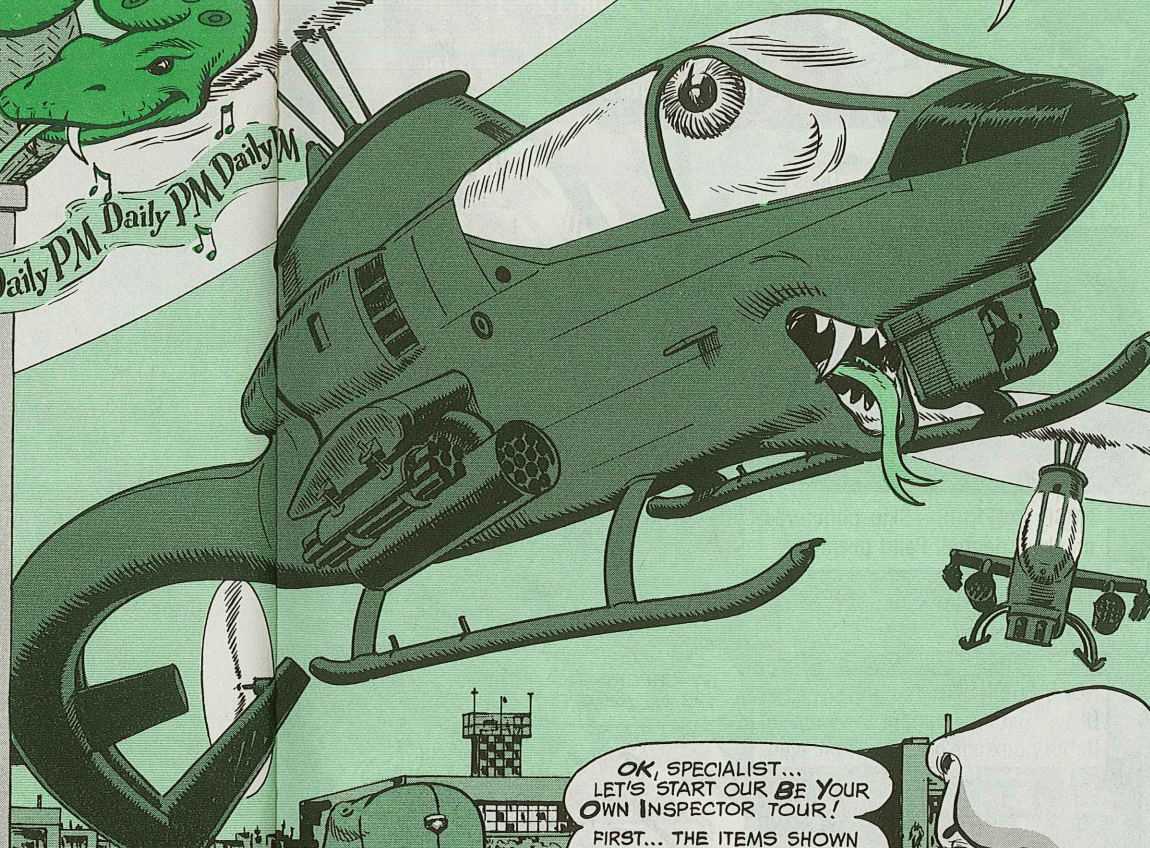
Your snake will be coiled and ready for action when you pull a complete Preventive Maintenance Daily, crewchiefs.

Damage you find on your bird can take many forms. Cracks, dents, scratches, punctures, chafing and wear are easy to spot. Not so with corrosion, which has a sneaky way of building up over a period of time to cause maintenance headaches.

Head off the villain before he causes major problems; do it by keeping your bird clean. Dirt breeds corrosion. Wash the exterior of your thin-skinned baby, including the rotor blades, regularly . . . daily along the coast in salt-laden air and in areas that have a humid climate. Always rinse the bird using a low pressure spray of water.

38

AHHH,SSS-SSSSSS...
I'M CHARMED...YER
PLAYIN' MY SONG,
CONNIE!



WHADDAYA
MEAN?
THAT'S
MY
SONG!

OK, SPECIALIST...
LET'S START OUR **BE YOUR
OWN INSPECTOR** TOUR!

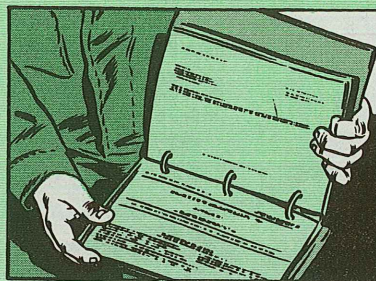
FIRST... THE ITEMS SHOWN
IN **GREEN CAPITALS** ARE
CRITICAL AND NEED
YOUR BEST EFFORT.

RIGHT ON,
CONNIE!

39

PS MORE

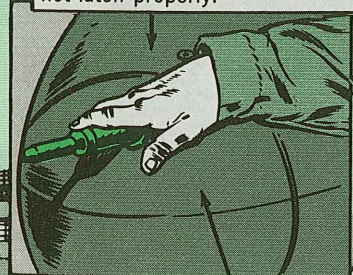
NOSE



FORMS, RECORDS—DEFICIENCIES LISTED IN LOG BOOK NOT CORRECTED.

(NOTE: Pay attention to the DA Form 2408-12, -13, -14 and -18. Correct squawks unless they're transcribed for future action.)

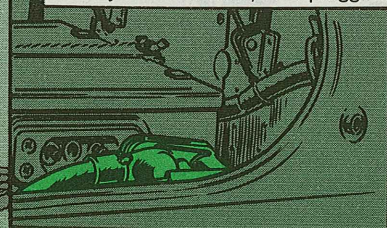
NOSE COMPARTMENT DOOR—Does not latch properly.



NOSE EXTERIOR—Skin punctured, cracked, dented. Paint peeling.

PITOT TUBE—LOOSE, DIRTY, PLUGGED WITH DIRT.

NOSE COMPARTMENT INTERIOR—Dirty. Battery connections loose. Battery box corroded, vent plugged.



OK-- WE START BY CHECKING OUT THE NOSE AREA!

?

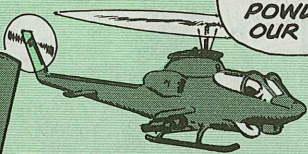


TURRET

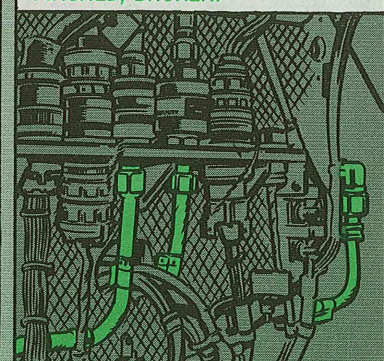
'ATTA GIRL CONNIE... TELL 'EM TRUE...



YEH -- MAKE SURE HE UNDERSTANDS IT TAKES MORE'N POWDER FER OUR NOSES!



AMMUNITION COMPARTMENT DOORS—SKIN PUNCTURED, DENTED, CRACKED. INTERIOR DIRTY. ELECTRICAL CABLES LOOSE, CORRODED, WIRES BROKEN. AMMO CHUTE AND TURRET DRIVE CABLE PINCHED, BROKEN.



SEARCHLIGHT—Glass broken, dirty.



EXTERNAL SURFACES—Fiberglass skin cracked, paint peeling.



HYDRAULIC LINES, HOSES, COMPONENTS—CHAFED, LEAKING.

NOW
CHECK OUT
THE COCKPIT
AREA FOR
LOOSE
OBJECTS!
AND...

...PAY
SPECIAL
HEED TO
THE NOTES!

WHAT
BOTTLE
DID SHE
POP
OUT
OF?

FOD BOX

GUNNER,

PILOT COCKPITS

PLEXIGLASS—Scratched.

(NOTE: Never use solvent to clean transparent plastic or you'll craze the plastic. Those minute cracks will turn the plastic hazy and ruin it... those big canopies don't come cheap!! Use transparent plastic polish, NSN 7930-00-634-5340, to clean the plexiglass.)

COMPASS CORRECTION CARD—
Dirty.

200 PROOF
PM!

GUNSIGHT—Loose. Moisture in lens.

COCKPIT INTERIOR—Dirty. Loose hardware, tools, clothing.

(NOTE: Remove any objects that could jam any controls. Stow personal gear in the authorized space behind the pilot's seat.)

INSTRUMENTS—Gage lenses loose, dirty. Range markings not readable.

FIRST AID KIT—12-mo inspection overdue. Seal broken.

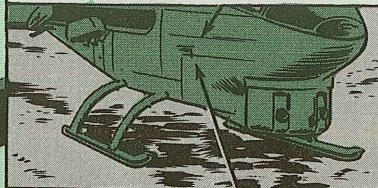
STORAGE COMPARTMENT—Cargo straps behind the pilot's seat broken.

FIRE EXTINGUISHER—6-mo weight test overdue. Seal broken.

DOORS—**DO NOT LATCH PROPERLY. STRUTS LOOSE, DO NOT OPERATE PROPERLY.**

LOWER FORWARD FUSELAGE

EXTERIOR SKIN—ACCESS PLATES LOOSE. Paint chipped, peeling. Decals not legible. Steps slippery.

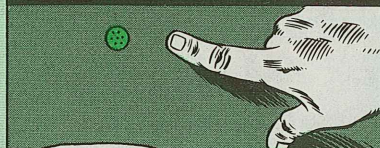


(NOTE: Make a mental note to renew the anti-skid paint on the steps during your next Periodic inspection. Decals are not stocked in the supply system. Reapply lettering by using paint and a stencil nearest to the size lettering called for in TB 746-93-2.)

DRAINS—Dirty, plugged with dirt.

STATIC PORTS—PLUGGED WITH DIRT, PAINTED OVER.

(NOTE: Those ports have to be spotless to keep the instruments operating properly.)



HMMP! HE SHOULD WATCH HIS STEP!

YOU NEED NEW SKID SHOES, SPECIALIST!

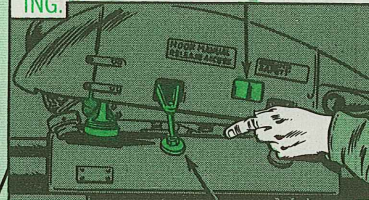


WING

EXTERIOR SURFACES—Chipped, peeling paint. Decals not legible. Ejector rack fairing dented.



ACCESSORY DOORS—BENT, CHAFING.



STORES EJECTOR RACK—LOOSE, CRACKED.

(NOTE: Clean the ejector rack jettison mechanism daily, when in use, or after each second firing. This will protect the rack from corrosion caused by the rocket motors.)

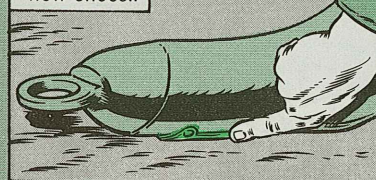
STORES EJECTOR, SAFETY PINS—EXTERNAL STORES NOT SEATED PROPERLY. EJECTOR OUT OF ADJUSTMENT. EXTERNAL STORES LOOSE IN RACK. SAFETY PINS NOT INSTALLED.

LANDING GEAR

LANDING GEAR, CROSS TUBE FAIRINGS—Bolts loose, missing. Fairing buckled.



SKID SHOES—Holes . . . baby needs new shoes!!



(NOTE: A buckled fairing could mean excessive gear spread. If the stinger appears to droop, better check your sagging bird for a damaged landing gear.)

MAIN ROTOR BLADES—
SCRATCHES, CRACKS, NICKS,
DENTS. LEADING EDGE ERODED.
BONDING FAULTY.

MAIN

ROTOR

CHECK THE
BLADE GRIPS...

HERE,
CONNIE...
CHECK MY
GRIPS...

(NOTE: Eyeball the top and bottom of the blades about mid-span for cracks. Check the tip weight by shaking the blade vertically. Focus in on the top and bottom surfaces of blades looking for cracks. Look at the grip plates and all doubler bond lines on the top and bottom of the blades for bond separation. TM 55-1520-221-20 (Sep 71) lists the maximum allowable voids for the grip plates and doublers. Bond separation will cause paint to crack or flake off in the bond lines. You may also have cracks in the paint and not bond separation. If you spot bond separation, further check the depth and length of the suspected bond with a 0.001 to 0.002-in feeler gage or a thin piece of paper or plastic. Focus on the entire length of the blades when looking for cracks. Blades that're beyond limits have to be replaced, right away.)

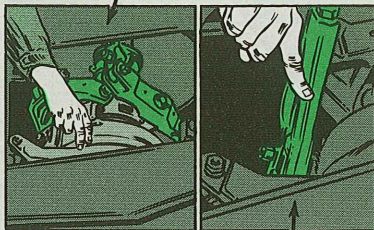
...AND ESPECIALLY
WATCH FOR BOND
SEPARATION--

-- AS THIS
NOTE SPELLS
IT OUT!

HUB, BLADE GRIPS, PITCH HORNS, DRAG BRACES—LOOSE, CORRODED.

SAND DEFLECTORS—CRACKED,
BONDING FAULTY.

SWASHPLATE, SCISSORS, SLEEVE—**NICKED, CRACKED, CORRODED.**

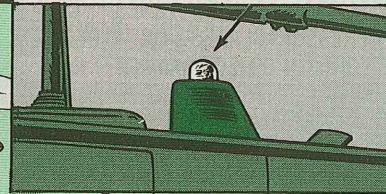


SCISSORS DRIVE LINK BEARINGS **LOOSE.**

MAST (EXPOSED PORTION)—**DIRTY, CORRODED.**



ANTI-COLLISION LIGHT—**BROKEN.**

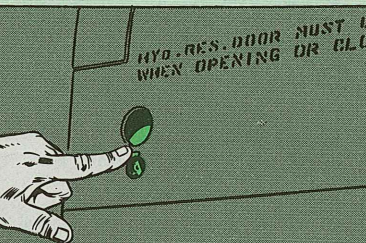


OUCH!

HERMAN-- YOU **GOTTA** GET THAT ANTI-COLLISION LIGHT FIXED!

YER RIGHT, JONATHAN!

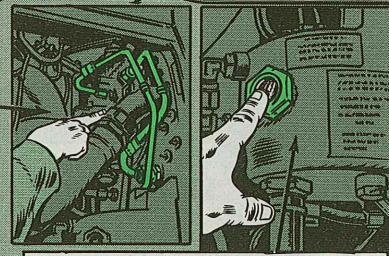
AGAIN-- AS YOU CHECK YOUR BIRD, WATCH FOR THAT OL' DEVIL **CORROSION!** HE'S A **SNEAKY** ONE!



HYD. RES. DOOR MUST BE WHEN OPENING OR CLOSING.

HYDRAULIC RESERVOIRS, MODULES, LINES, HOSES IN HYDRAULIC COMPARTMENT—**LOOSE, chafing, LEAKING.**

(NOTE: Re-position lines to remove any chafing problems. Follow the line routing and clamping poop in TM 55-1500-204-25/1 on general practices.)

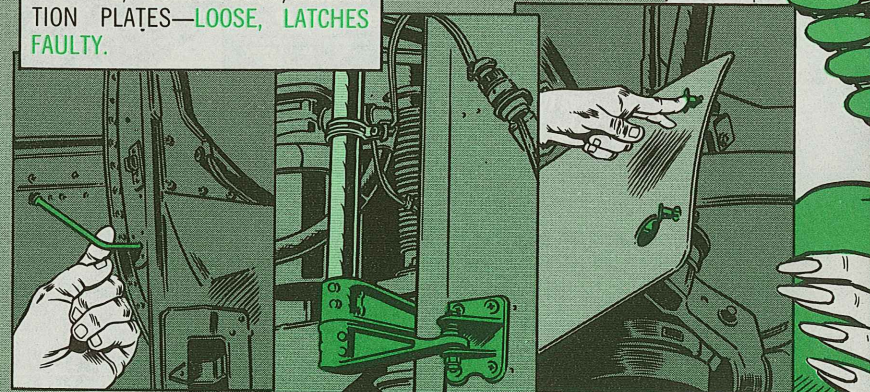


HYDRAULIC RESERVOIRS—**FLUID LEVEL LOW.**

(NOTE: Empty the hydraulic accumulator for a check of the #1 system.)

HYDRAULIC MODULE FILTER INDICATORS—**BUTTONS POPPED.**

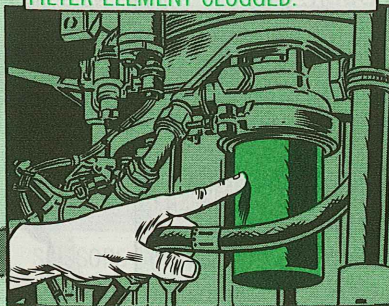
COWLING, ACCESS DOORS, INSPECTION PLATES—**LOOSE, LATCHES FAULTY.**



PYLON AREA

(Continued)

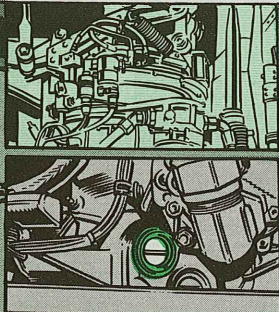
TRANSMISSION EXTERNAL OIL
FILTER BYPASS INDICATOR—
FILTER ELEMENT CLOGGED.



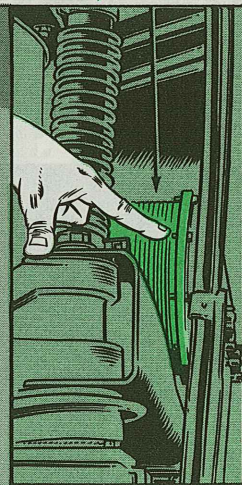
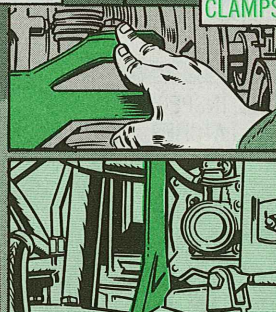
ENGINE INLET HOUSING, AIR
DUCTS, GUIDE VANES, COM-
PRESSOR BLADES—OIL STREAKS.
FOREIGN OBJECT DAMAGE.

ENGINE INLET SCREEN,
ACTUATORS—SCREEN DIRTY. AC-
TUATORS LOOSE.

TRANSMISSION, CONNECTIONS—
CRACKS, OIL LEAKING.



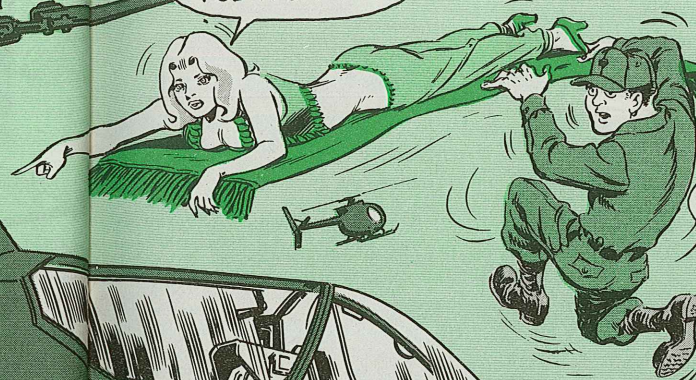
MAIN (INPUT) DRIVE SHAFT
COUPLINGS—GREASE LEAKING.
CLAMPS CRACKED, LOOSE.



(NOTE: Eyeball the transmission sump
for water contamination as you check the
oil level. The lift link should be tight. Look
for cracks in the lift link lugs and focus in
on the right link lug in the bushing area.)



EYEBALL-- INLETS
CAREFULLY... THEY'RE A
GREAT SOURCE OF
FOD PROBLEMS!



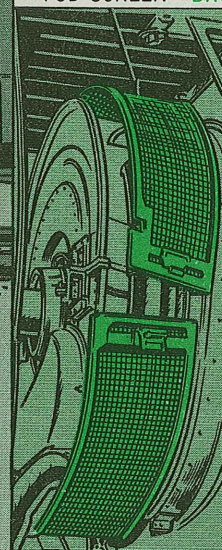
RIGHT ON,
CONNIE!

I
SEE WOT
YA MEAN!

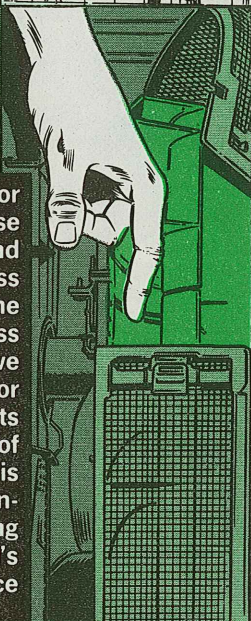
DUNNO--
A
UFO??

HEY FRED!...
LOOKIT!! WHAT'S
TH' FUNNY
BLIP ON TH'
SCREEN.

FOD SCREEN—BROKEN.



(NOTE: Replace a torn or
punctured screen because
foreign objects can enter and
damage the engine. If grass
and other debris are on the
screen pull a special grass
blockage inspection. Remove
the top half of the separator
and eyeball seals and gaskets
for tears, rips and lack of
adhesion. If the separator is
damaged disassemble, in-
spect and clean it according
to the poop in the bird's
organizational maintenance
pub.)



HALP!

SIT DOWN
CONNIE -- PUH-LEEZ!
I AIN'T NO BIRD!!

RIGHT ON,
CONNIE!

CENTER

FUSELAGE

BOY, JONATHAN--
THE SKIES ARE GETTIN'
CLUTTERED!

EXTERIOR SURFACES—Paint
chipped, peeling. Decals not
readable.

ACCESS DOORS—HINGES CRACK-
ED. DOORS DO NOT LATCH PROPER-
LY. FASTENERS MISSING.

EXTERNAL POWER RECEPTACLE—
Access door bent, loose.

EXTERNAL
POWER

OIL COOLER SCREEN,
BLOWER—Dirty,
loose. Blower leaking
grease.

FUEL TANK SUMP DRAINS—FUEL
CONTAMINATED?

(NOTE: Latch onto a jar and
sample the 2 fuel sumps and
the fuel filter.)

CLEAN
FUEL IN A
BIRD IS AN
ABSOLUTE
MUST!

YIPE

WHATSAMATTER?...
IT'S ONLY A
FUEL SAMPLE!

FUEL CELLS—LEAKING AT DRAIN.

EXTERNAL DRAINS—Corroded,
plugged.

DRAIN
FUEL FILTER
ENGINE DECK
ENGINE TAIL PIPE
ENGINE FUEL CONTROL
ENGINE COMB CHAMBER

FUEL SUPPLY LINES—LEAKING.

CENTER FUSELAGE

(Continued)

(NOTE: Re-position hoses to get rid of any chafing problems. The cylinder should not be loose on the mount. Eyeball the slippage marks on the cylinder mount nuts and the bearing retaining nut for alinement.)

HYDRAULIC CYL-
INDERS, HOSES—
HOSES CHAFED,
LEAKING.

WHAT'S
CLEMENTINE
SQUAWKIN' ABOUT,
JONATHAN?

SHE SEZ HE'S
GOT ELECTRICAL
PROBLEMS THAT ARE
WORSE'N HIS **HYDRAULIC!**

HALP!
GLUB! MY
HYDRAULICS ARE
LEAKIN'!
GLUB!

ELECTRICAL COMPARTMENT—
Components loose. Wiring chafing,
broken.

TAIL ROTOR BOOST CYLINDER,
HYDRAULIC HOSES—Cracked, leak-
ing.

GAGE →

HYDRAULIC ACCUMULATOR—
PRECHARGED?

(NOTE: Discharge hydraulic
pressure for the charge
check.)

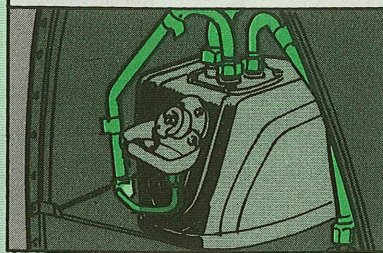
DISCHARGE ...

... FOR CHECK

PAY HIM NO
MIND, CONNIE!!

HE ALWAYS LIKES
TO DRAMATIZE
A PROBLEM!

OIL TANK, LINES, HOSES—**CHAFED, LEAKING.**



TAILPIPE FAIRING, EJECTOR—**LOOSE, CRACKED, DENTED.**

UPPER FAIRING—**LOOSE, PUNCTURED. PAINT PEELING.**

COWLING—**LOOSE, LATCHES BROKEN, PAINT PEELING.**

THIS GREAT BIRD IS SURE NO **GOOSE**-- BUT SHE'S GOT LOTS O' PARTS AS LOOSE AS!

WHAT DO WE DO FIRST?

HEY, CONNIE!

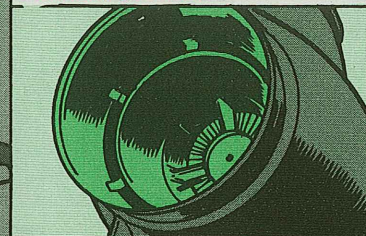
ENGINE COMPRESSOR HOUSING—**CRACKED.**

ENGINE CONTROL LINKAGES, ACTUATOR, CAMBOX—**LOOSE, WORN EXCESSIVELY, DENTED.**

ENGINE ACCESSORIES, CONNECTIONS—**LOOSE, CRACKED, DENTED, CHAFING, WORN EXCESSIVELY.**

ENGINE

ENGINE COMBUSTION CHAMBER HOUSING, EXHAUST DIFFUSER, SUPPORT CONE, FIRESHIELD, TAILPIPE—**CRACKED, DENTED, BURNED, BUCKLED.**



ENGINE MOUNTS—**LOOSE, CRACKED.**

(NOTE: Look for cracks on both trunnions. Pushing and pulling on the engine mount rods can worsen bearing wear. Unless the pilot says there is a high frequency vibration, or the weight of the engine is lifted out of the trunnion pillow blocks during an inspection, never tug on the rods. To prevent unnecessary removal of a mount assembly for a bearing believed to be excessively worn, remember that axial and radial play is the same for all the rod end bearings . . . 0.018-in axial and 0.008-in radial.)

NEVER-- BUT **NEVER**-- PUSH, PULL OR TUG ON THE ENGINE MOUNT RODS ... AND YOU'LL CUT DOWN ON BEARING WEAR!



TAILBOOM

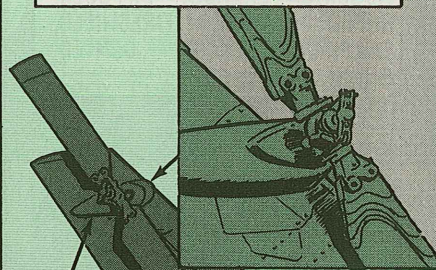
TAIL ROTOR CONTROL
INSTALLATION—**LOOSE.**



(NOTE: Make with the flashlight and fingers, crewchiefs, and focus in on the sprocket, chain and cables. The parts should be clean with no breaks or other damage. The speed rig barrels have to be safetied.)

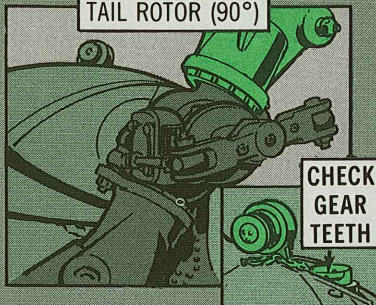
TAIL ROTOR CROSSHEAD NUTS,
BOLTS—**RETAINING NUTS AND
BOLTS NOT SAFETIED.**

TAIL ROTOR HUB, BLADE—**HUB
LOOSE. BLADE DENTED, CRACKED.**



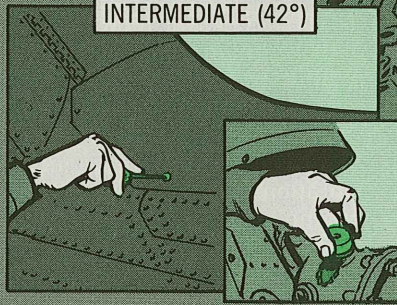
GEARBOXES—**LOOSE, LEAKING, OIL LEVEL LOW.**

TAIL ROTOR (90°)

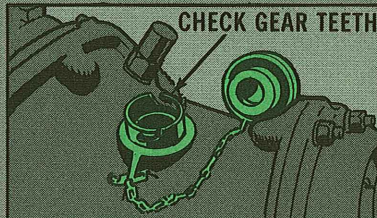


CHECK
GEAR
TEETH

INTERMEDIATE (42°)



CHECK GEAR TEETH



(NOTE: Check the gear teeth for scoring by looking thru the filler cap. When adding oil to the gear box, or any reservoir for that matter, never overfill the system. Otherwise, you could blow some seals—ground your bird.)

TAILBOOM EXTERIOR—**SKIN
PUNCTURED.**

ELEVATORS, TAIL SKID—**LOOSE.
RIVETS LOOSE, MISSING.**

(NOTE: Move the elevators in-and-out and up-and-down to check for excessive play.)

TAIL ROTOR DRIVE SHAFT—**LOOSE.**



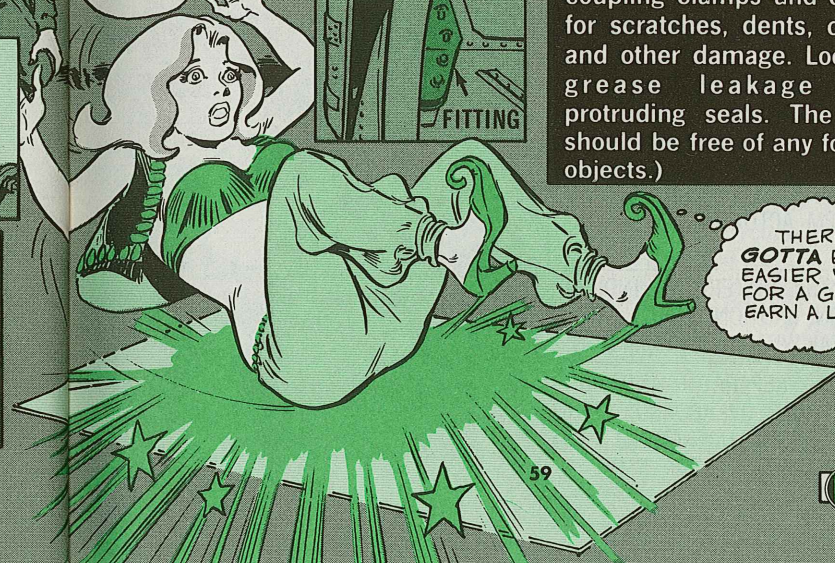
(NOTE: Plant your mitts on the shafts to check for security. Eyeball the shafts, hangers, coupling clamps and covers for scratches, dents, cracks and other damage. Look for grease leakage and protruding seals. The area should be free of any foreign objects.)

TAILBOOM ATTACHING FITTINGS—**CRACKED, LOOSE. BOLT SLIPPAGE
MARKS NOT ALINED.**



FITTING

HAH!
YOU
GOTTA
WATCH
FER
SLIPPAGE,
CONNIE!



THERE'S
GOTTA BE AN
EASIER WAY
FOR A GIRL TO
EARN A LIVIN'!

POWER ON CHECKS

PITOT HEATER—TUBE COLD.

CAUTION PANEL LIGHTS—DO NOT WORK ON TEST SWITCH POSITION.

INTERIOR LIGHTS—COCKPIT, INSTRUMENT LIGHTS NOT WORKING.

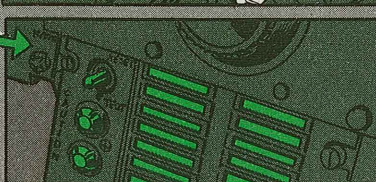
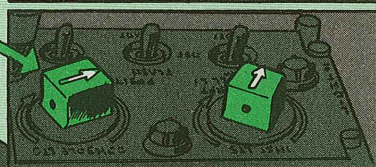
EXTERIOR LIGHTS—NAVIGATION, ANTI-COLLISION, SEARCH LIGHTS INOPERABLE.

FUEL QUANTITY INDICATOR—NO INDICATION WITH TEST SWITCH.

ENGINE CONTROLS—NO FREE MOVEMENT THRU FULL RANGE. IDLE STOP RELEASE AND GOVERNOR RPM ACTUATOR NOT WORKING.

MAIN FUEL FILTER—NO INDICATION ON CAUTION PANEL. FUEL LINE LEAK WITH BOOST PUMPS ON.

PARTICLE SEPARATOR—NO AIR FLOW FROM OVERBOARD VENT DURING ENGINE OPERATION.



AVIONICS, ARMAMENT

CREW-CHIEFS!..

YOUR FAVORITE AVIONICS SECTION SHOULD PULL ANY DAILY CHECKS CALLED FOR IN THE TM 11-SERIES PUBS ON THE COBRA!

The same deal goes for armament subsystems. Armorers check and service the 2.75-in rocket system, 7.62-MM Minigun, and the 40-MM grenade launcher according to the TM 9-series manuals.

LUBRICATION SERVICE

Lube the tail rotor blade grips, and service your baby with fuel, oil and hydraulic fluid.

Page thru the log book to make sure all forms are up to snuff and sign off the Daily ... then, your bird's ready for the wild blue.

BYE!
...AND HAPPY PM!

GAINING

AND

LOSING

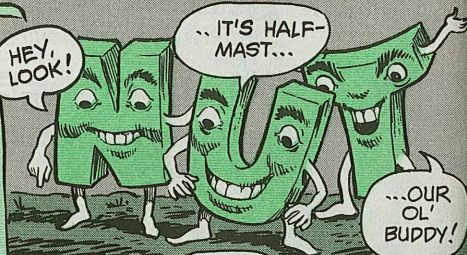
ON YOUR

DA FORM 2408-9

Dear Half-Mast,
I have a DA Form 2408-7 and 2408-8 in my logbook for the 106-MM recoilless rifle. The NSN, serial number and model number have changed.

Do I initiate both a loss and a gain report? If so, what codes do I use? Is an acceptance report required? The note under para 4-9b(2)(a) of TM 38-750 leads me to believe one is required.

Also, what happens when an item of equipment has been added to Appendix E for the first time? Do I make up both an acceptance and gain report? SSG W.E.B.



YOU USE CODES "N", "T", OR "U"!!



Dear SSG W.E.B.,

When the NSN, serial number and model number are changed on an item, make sure the new model is listed in Appendix E, TM 38-750.

If it is listed, submit a loss report on DA Form 2408-9 using code "N". Put the old NSN, serial number and model number on the form, and destroy the logbook copy.

Send in a gain report, DA Form 2408-9, with the new NSN, serial number and model number. Use code "T". Mark the logbook copy as the permanent copy and file it in the logbook.

You do not make a new acceptance report.

If the new model is not listed in Appendix E, send in a loss report on the old NSN, serial number and model number.

You submit only a gain report using code "U" on equipment that has been added to Appendix E.

An acceptance report is submitted only when an item requiring logbook forms is first accepted into the Army inventory.

Half-Mast

1. ORGANIZATION B Co, 4th Bn, 5th Inf Ft Bragg, NC 28307		2. LOCATION WH 72 Co		3. UNIT IDENT CODE ON		4. UTILIZATION CODE		5. VEHICLE USE CODE	
6. NOMENCLATURE Rifle Recoilless		7. MODEL M40A4		8. NATIONAL STOCK NO. 1015-00-133-8485		9. SERIAL NO. 7243		10. REGISTRATION NO.	
11. YEAR OF MFG		12. MANUFACTURER (MFG Code)		13. CONTRACT NO.		14. PURCHASE ORDER NO.		15. WARRANTY PERIOD	
16. TYPE REPORT		17. REPORT CODE		18. USAGE		19. SHIPPED TO & ORGANIZATION		20. SHIPPED TO UIC	
a. ACCEPTANCE AND REGISTRATION				a. HOURS					
b. USAGE				b. MILES					
c. TRANSFER				c. ROUNDS 1038					
d. LOSS									
e. GAIN		T							
f. OTHER									
21. REMARKS									
IF THE NEW MODEL IS LISTED IN APPENDIX E OF TM 38-750, SUBMIT A GAIN REPORT WITH THE NEW NSN, SERIAL NUMBER AND MODEL NUMBER. USE CODE T FROM APPENDIX A, TABLE A-20.									
22. INSPECTOR'S SIGNATURE								23. JULIAN DATE 3213	
EQUIPMENT CONTROL RECORD									
For use of this form, see TM 38-750; the proponent agency is the Office of the Deputy Chief of Staff for Logistics.									
DA FORM 2408-9				REPLACES DA FORMS 2408-7, 1 JAN 64, AND 2408-8, 1 JAN 64, WHICH ARE OBSOLETE.				NMP COPY 1	

TAILORING LOGBOOKS

You probably thought logbooks, combine the logs into 1 logbook like fatigues, pretty well fit a standard binder? If so, then go with 1. Use a DA Form 2408-10 as an index to keep tabs on the different items.

Maybe you have several items of equipment that really operate as a system—like a RATT rig, truck and generator, or a generator, trailer and pumps.

Do you keep 1 logbook binder with the equivalent of 3 or 4 logbooks in it, or separate logs?

It depends on you. Either way you're covered by TM 38-750. Is it easier to

But, if you use 1 or more of the items for more than 1 set or system, then it's probably easier to keep the items in separate logbook binders.

THIS IS ONE TIME WHEN YOU CAN STRICTLY SUIT YOURSELF!



GETTING AHEAD OF NON-NSN REQUESTS

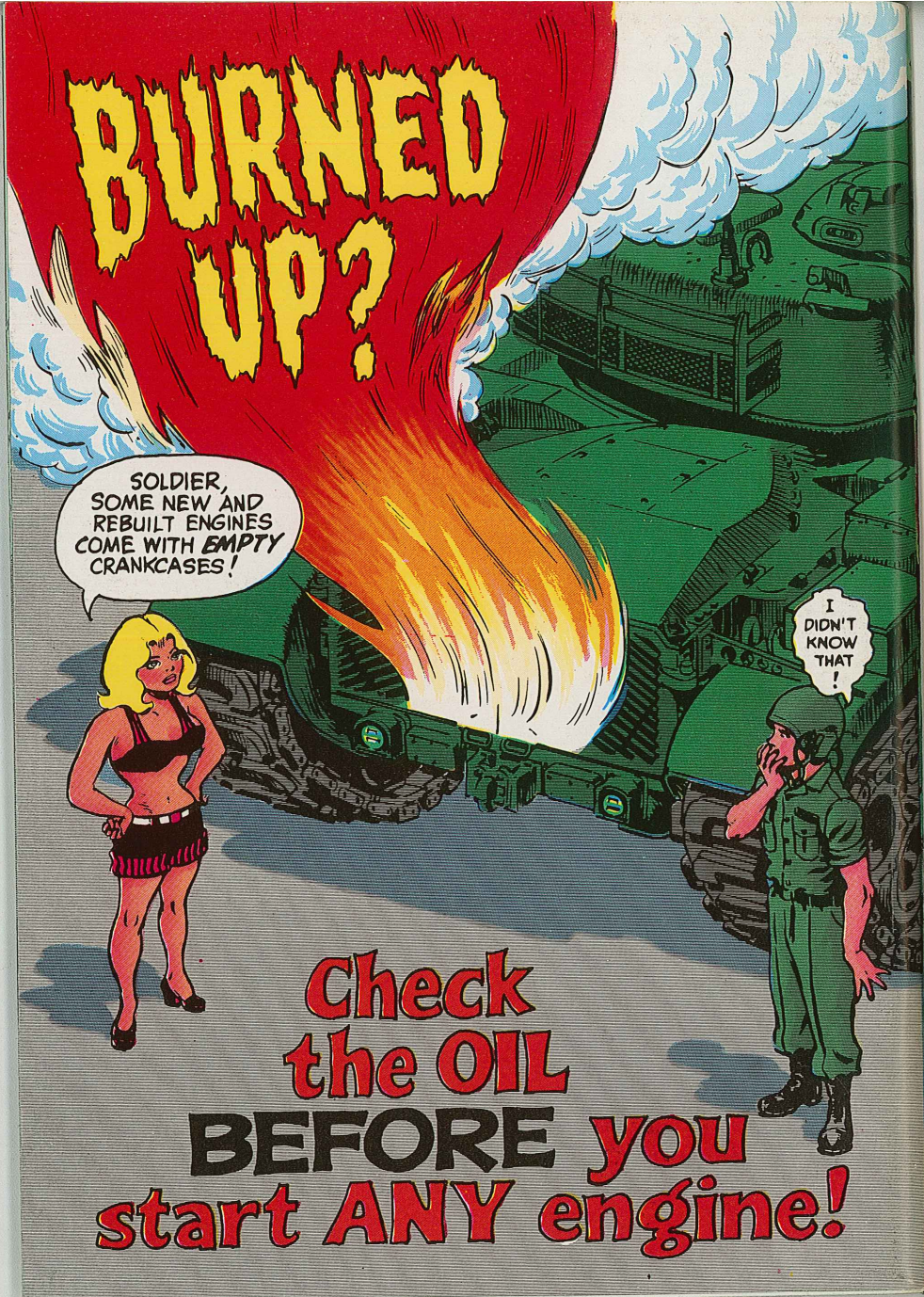
If your DA Form 2765's for non-NSN'd items are bouncing back empty-handed, check your local supply SOP.

Could be you should be using DD Form 1348-6 when you don't have an NSN and you need to put down more info than your regular supply form has space for.



GATHER ROUND, SUPPLY CATS, AND EYEBALL THIS DD FORM 1348-6! IT MAY BE JUST THE GOODIE YOU NEED!

DOCUMENT IDENTIFICATION		MANUFACTURER'S CODE AND PART NUMBER		UNIT OF ISSUE	QUANTITY	REQUISITIONER	DATE	SERIAL
1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54
55	56	57	58	59	60	61	62	63
64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117
118	119	120	121	122	123	124	125	126
127	128	129	130	131	132	133	134	135
136	137	138	139	140	141	142	143	144
145	146	147	148	149	150	151	152	153
154	155	156	157	158	159	160	161	162
163	164	165	166	167	168	169	170	171
172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189
190	191	192	193	194	195	196	197	198
199	200	201	202	203	204	205	206	207
208	209	210	211	212	213	214	215	216
217	218	219	220	221	222	223	224	225
226	227	228	229	230	231	232	233	234
235	236	237	238	239	240	241	242	243
244	245	246	247	248	249	250	251	252
253	254	255	256	257	258	259	260	261
262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279
280	281	282	283	284	285	286	287	288
289	290	291	292	293	294	295	296	297
298	299	300	301	302	303	304	305	306
307	308	309	310	311	312	313	314	315
316	317	318	319	320	321	322	323	324
325	326	327	328	329	330	331	332	333
334	335	336	337	338	339	340	341	342
343	344	345	346	347	348	349	350	351
352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369
370	371	372	373	374	375	376	377	378
379	380	381	382	383	384	385	386	387
388	389	390	391	392	393	394	395	396
397	398	399	400	401	402	403	404	405
406	407	408	409	410	411	412	413	414
415	416	417	418	419	420	421	422	423
424	425	426	427	428	429	430	431	432
433	434	435	436	437	438	439	440	441
442	443	444	445	446	447	448	449	450
451	452	453	454	455	456	457	458	459
460	461	462	463	464	465	466	467	468
469	470	471	472	473	474	475	476	477
478	479	480	481	482	483	484	485	486
487	488	489	490	491	492	493	494	495
496	497	498	499	500	501	502	503	504
505	506	507	508	509	510	511	512	513
514	515	516	517	518	519	520	521	522
523	524	525	526	527	528	529	530	531
532	533	534	535	536	537	538	539	540
541	542	543	544	545	546	547	548	549
550	551	552	553	554	555	556	557	558
559	560	561	562	563	564	565	566	567
568	569	570	571	572	573	574	575	576
577	578	579	580	581	582	583	584	585
586	587	588	589	590	591	592	593	594
595	596	597	598	599	600	601	602	603
604	605	606	607	608	609	610	611	612
613	614	615	616	617	618	619	620	621
622	623	624	625	626	627	628	629	630
631	632	633	634	635	636	637	638	639
640	641	642	643	644	645	646	647	648
649	650	651	652	653	654	655	656	657
658	659	660	661	662	663	664	665	666
667	668	669	670	671	672	673	674	675
676	677	678	679	680	681	682	683	684
685	686	687	688	689	690	691	692	693
694	695	696	697	698	699	700	701	702
703	704	705	706	707	708	709	710	711
712	713	714	715	716	717	718	719	720
721	722	723	724	725	726	727	728	729
730	731	732	733	734	735	736	737	738
739	740	741	742	743	744	745	746	747
748	749	750	751	752	753	754	755	756
757	758	759	760	761	762	763	764	765
766	767	768	769	770	771	772	773	774
775	776	777	778	779	780	781	782	783
784	785	786	787	788	789	790	791	792
793	794	795	796	797	798	799	800	801
802	803	804	805	806	807	808	809	810
811	812	813	814	815	816	817	818	819
820	821	822	823	824	825	826	827	828
829	830	831	832	833	834	835	836	837
838	839	840	841	842	843	844	845	846
847	848	849	850	851	852	853	854	855
856	857	858	859	860	861	862	863	864
865	866	867	868	869	870	871	872	873
874	875	876	877	878	879	880	881	882
883	884	885	886	887	888	889	890	891
892	893	894	895	896	897	898	899	900
901	902	903	904	905	906	907	908	909
910	911	912	913	914	915	916	917	918
919	920	921	922	923	924	925	926	927
928	929	930	931	932	933	934	935	936
937	938	939	940	941	942	943	944	945
946	947	948	949	950	951	952	953	954
955	956	957	958	959	960	961	962	963
964	965	966	967	968	969	970	971	972
973	974	975	976	977	978	979	980	981
982	983	984	985	986	987	988	989	990
991	992	993	994	995	996	997	998	999
1000	1001	1002	1003	1004	1005	1006	1007	1008
1009	1010	1011	1012	1013	1014	1015	1016	1017
1018	1019	1020	1021	1022	1023	1024	1025	1026
1027	1028	1029	1030	1031	1032	1033	1034	1035
1036	1037	1038	1039	1040	1041	1042	1043	1044
1045	1046	1047	1048	1049	1050	1051	1052	1053
1054	1055	1056	1057	1058	1059	1060	1061	1062
1063	1064	1065	1066	1067	1068	1069	1070	1071
1072	1073	1074	1075	1076	1077	1078	1079	1080
1081	1082	1083	1084	1085	1086	1087	1088	1089
1090	1091	1092	1093	1094	1095	1096	1097	1098
1099	1100	1101	1102	1103	1104	1105	1106	1107
1108	1109	1110	1111	1112	1113	1114	1115	1116
1117	1118	1119	1120	1121	1122	1123	1124	1125
1126	1127	1128	1129	1130	1131	1132	1133	1134
1135	1136	1137	1138	1139	1140	1141	1142	1143
1144	1145	1146	1147	1148	1149	1150	1151	1152
1153	1154	1155	1156	1157	1158	1159	1160	1161
1162	1163	1164	1165	1166	1167	1168	1169	1170
1171	1172	1173	1174	1175	1176	1177	1178	1179
1180	1181	1182	1183	1184	1185	1186	1187	1188
1189	1190	1191	1192	1193	1194	1195	1196	1197
1198	1199	1200	1201	1202	1203	1204	1205	1206
1207	1208	1209	1210	1211	1212			

A comic-style illustration showing a large fire consuming a military vehicle. In the foreground, a blonde woman in a black bikini top and skirt stands on the left, and a soldier in a green uniform stands on the right, looking at the fire with a shocked expression. The background shows other military vehicles and a large plume of white smoke.

BURNED UP?

SOLDIER,
SOME NEW AND
REBUILT ENGINES
COME WITH **EMPTY**
CRANKCASES!

I
DIDN'T
KNOW
THAT
!

**Check
the OIL
BEFORE you
start ANY engine!**