

Issue 213

PS

1970 Series
August

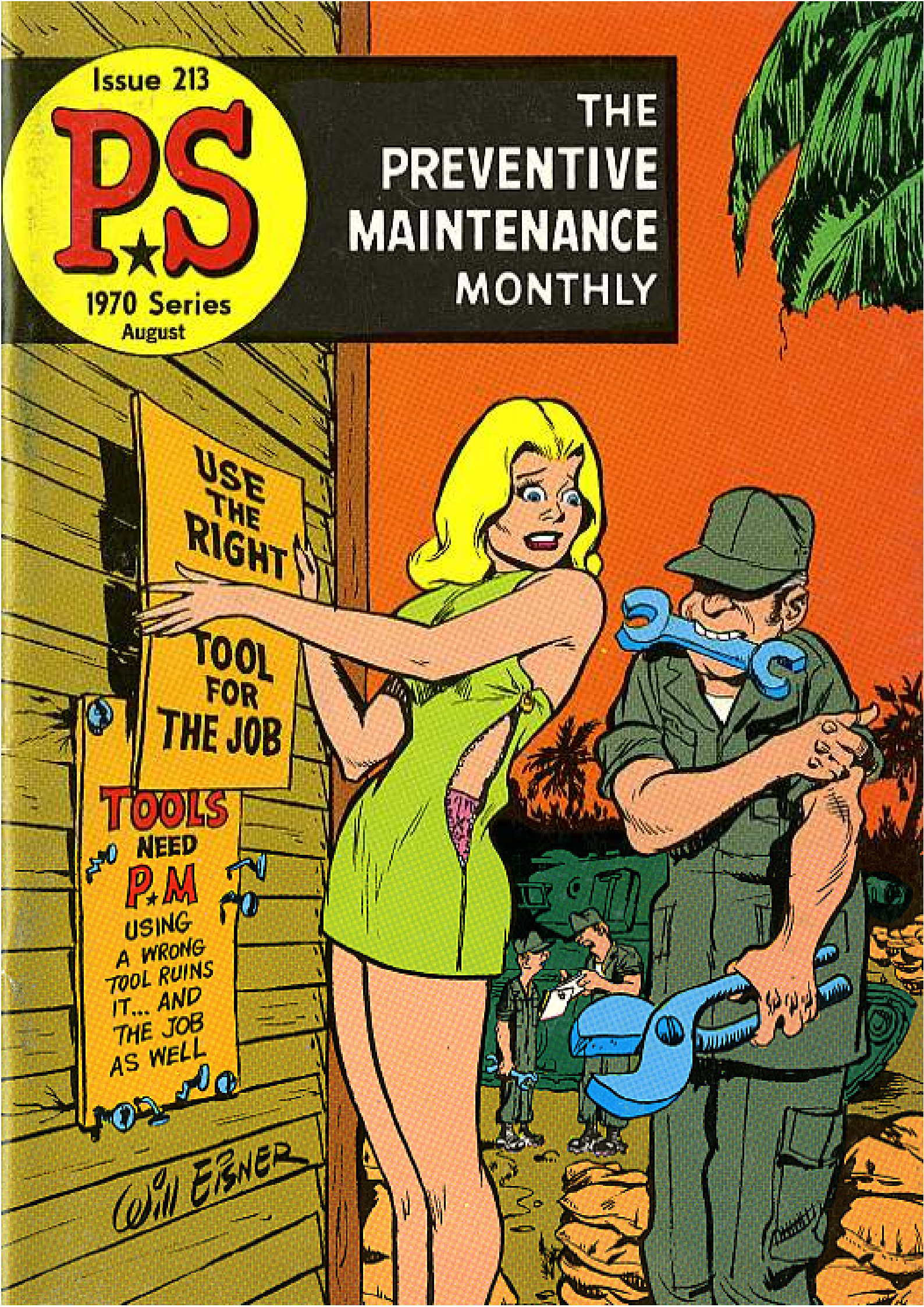
THE PREVENTIVE MAINTENANCE MONTHLY

USE
THE
RIGHT

TOOL
FOR
THE JOB

TOOLS
NEED
P.M.
USING
A WRONG
TOOL RUINS
IT... AND
THE JOB
AS WELL

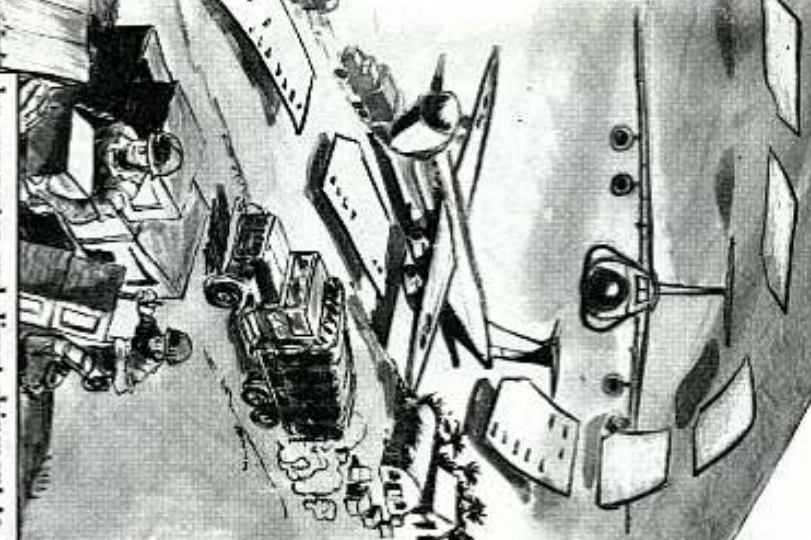
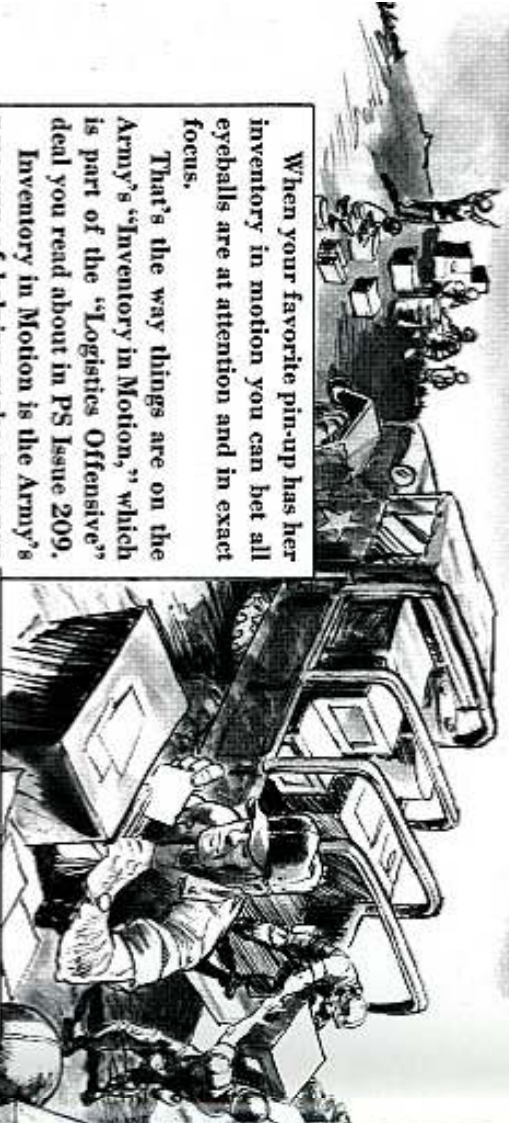
Will Eisner



"INVENTORY IN



"MOTION"



When your favorite pin-up has her inventory in motion you can bet all eyeballs are at attention and in exact focus.

That's the way things are on the Army's "Inventory in Motion," which is part of the "Logistics Offensive" deal you read about in PS Issue 209. Inventory in Motion is the Army's new way of helping make sure you get the equipment, repair parts and supplies when and where you need them.

HMMMA... YES!... NOW - WHAT WERE YOU SAYING??



Just this: There'll be no big piles of things stacked up in your unit, in your support, or in the combat area depot—all where the enemy can sneak up and clobber it, or where it could get old or stale.

Instead, there will be rapid ordering, shipping and transporting of the stuff you need from back in CONUS to wherever you are . . . ordering by fast electronics communications, keeping tab on movement of the stuff

by computer and direct shipment to you by jet yet.

So, you can see there can be big advantages to you and to Uncle Sam of having inventory (supplies) "in motion" by fast direct delivery than by having big gobs stacked up in your combat area. Of course, there'll still be enough supplies and parts in your area to be sure you can fight.

It's the modern touch. You'll see more items in PS about "Logistics Offensive."

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Use of funds for printing of this publication has been approved by Headquarters, Department of the Army, 28 February 1983. DISTRIBUTION, in accordance with requirements submitted on DA Form 124.

PS wants your letters and contributions. And it's glad to answer your questions. Name and address, 16 VPI in street, please, will write to:

Sgt. Wally Mast,
 PS Magazine,
 Post Kees, Ky.
 40121



TRUCKDRIVERS DIG THAT

AS OL' BEN FRANKLIN ONCE SAID: "LITTLE STROKES FELL GREAT OAKS."

YA GOTTA TELL ME HOW YA DO IT, BUG!



Did y'ever see an ant sweat?

Nope. But he sure gets a lot done—the easy, no-sweat way—just keep pluggin' away!—no strain, no worry.

How 'bout you? Does takin' care of your truck seem like an awful big job? Then take a tip from that ol' ant—and don't let your truck PM bug you. Do your PM checks one at a time. You'll whittle down your before-operations routine while the other guy is strewin' and frettin' over what's ahead of him.

Fact is, you've got it a lot easier'n that ant. There's not much real work in doin' your truck PM. It's the same idea as takin' care of yourself. Like you have to take on food 'n' water to keep you peckin' along. Like you holler for a medic when there's something wrong with you.

Keeping your truck in top operating shape is just that simple.

COOL BUG

HERE'S HOW TO DO TRUCK PM—AND KEEP COOL.

BEFORE MOUNTING UP, CHECK THESE!

HUNGRY? THIRSTY?

Make sure:

—Fuel's up to the **FULL** mark—or pretty darn near it.

—Engine crankcase oil is at least over the **ADD** mark on the dipstick.

(Remember, checking the crankcase oil level in your multifuel engine truck is different—like it says in FS 205, page 54, and in TB 750-981-3 (Jul 69), Article 3-8).



—Engine coolant is up to 1 inch below the top of the radiator (this doesn't mean 1 inch below the top of the filler neck—that's too much).

NOT THIS POINT

1" BELOW THIS POINT...

3/4"



ANYWHERE BETWEEN "ADD AND FULL" IS SAFE.



Make sure:

— Battery electrolyte is over the tops of the plates in every cell (be careful when adding water so you don't overflow or you'll flood out your electrolyte).

— Every tire is up to snuff (check dusts with a 2-by-4 or a pry bar in case a soft tire doesn't show because of a good one hidden fit up—use your tire gauge on any tire you're suspicious of).



WHACK IT WITH YOUR LUG WRENCH TO SEE IF IT'S SOFT!



There's nothin' hard about keepin' your eyes open as you go along takin' care of those things. You just look for leaks and for loose, damaged or missing parts. Any one of these can be a "seed of destruction"—a little problem that grows until you've got a real big problem on your hands.

THAT RADIATOR HOSE HAS BEEN LEAKIN' FOR A WEEK, BUT NOW IT'S TOO LATE!



Let's say, f'instance, that you miss a leaking radiator hose (or you do spot it, but you slip up on reporting it). Pretty soon pressure in your engine cooling system is going to make that pin-hole leak bigger—and you're goin' to lose more 'n' more engine coolant. Your engine gets hotter 'n' hotter. Then the pistons jam solid in the cylinders—bloody—connecting rods bust or even go right out through the side of your engine! That "little" leak could've been stopped by your mechanic putting on a new radiator hose.

SEE 'N' TELL

It's up to you to spot these little problems. You have to look, listen, smell 'n' feel.

And it's up to you to report 'em—right away—on your DA Form 2404, if you don't have the tools 'n' know-how to fix 'em yourself.

FE FI FO FUM DUM
I SMELL A LEAK!

If you're not sure whether it's a real problem, report it anyway. Then, if it turns out to be no problem, you'll know next time you run across it.

Never try to fix something unless you're sure you're authorized to do it. You could turn little trouble into big trouble right on the spot!

Trouble-spotting—and reporting—is one of the most important parts of your PM.

IF YOU'RE NOT
AUTHORIZED TO FIX
IT, REPORT IT RIGHT
AWAY.

DON'T
WORRY! I KNOW
JUST WHAT THE
PROBLEM IS. I
HAD THIS MINI
BIKE THAT USED
TO DO THE SAME
THING.



HOW OFTEN?

There're thousands of parts in your truck. You can keep tabs on an awful lot of 'em with your eyes, ears, nose 'n' hands.

Natch, you've got to make the rounds more often when you're operatin' hot 'n' heavy—and when conditions are "unusual," like real dusty or real muddy or real cold.

HOT AND DUSTY
WET 'N' COLD—
RATHER UNUSUAL
WEATHER CONDITIONS.



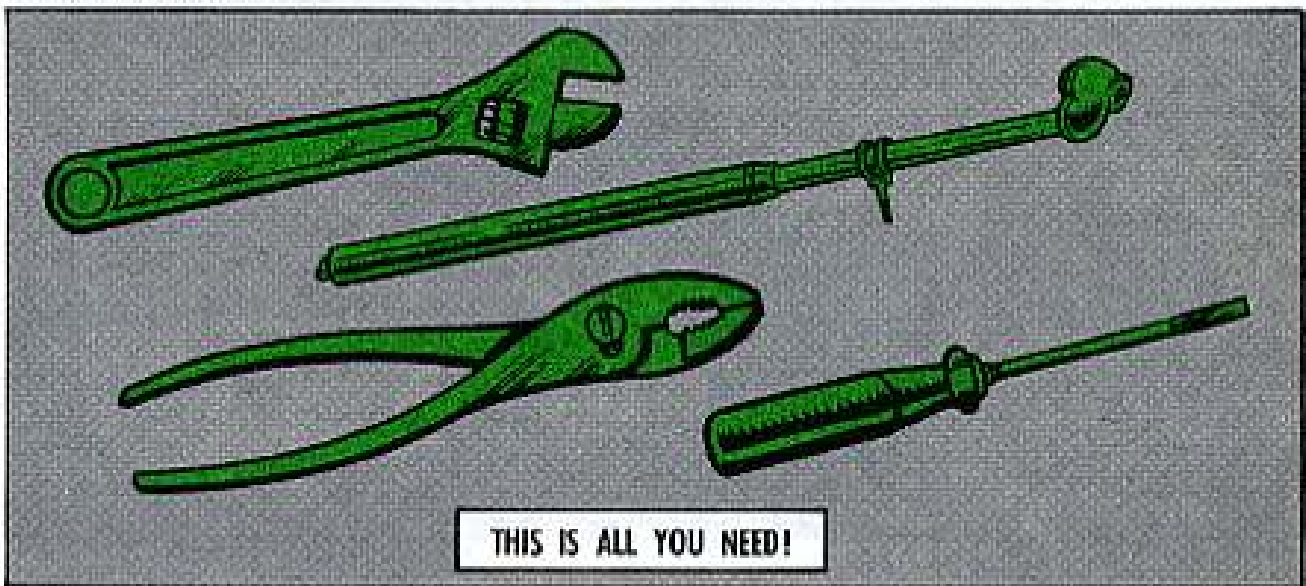
KNOW BEFORE YOU GO

Most important, though, is a close before-operations check. If you know everything is "go" before you go, you stand a good chance of getting through your operation with no trouble.

Take a tip from the flyboys—make a system out of your before-operation inspection. Make the same rounds the same way every time. Maybe a check list will help (See PS 208). You'll be sure to hit every point.

You'll know before you go!

You don't have to lug along a lot of fancy tools. You use the wrench, pliers, screwdriver 'n' such in your truck's BILI (Basic Issue List Items) for most of your inspection. And you need a tire gage to check your tires—just lookin' isn't good enough this time.

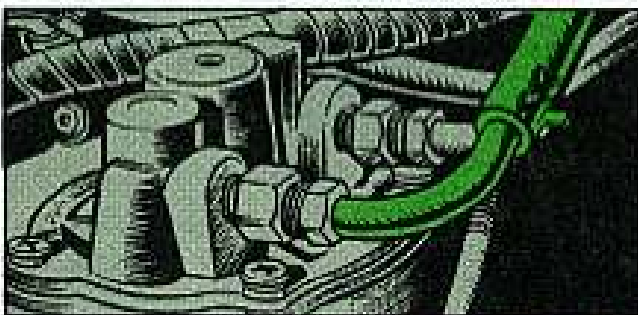


TOO MUCH!

You can't over-inspect when you're looking, listening, smelling and feeling.

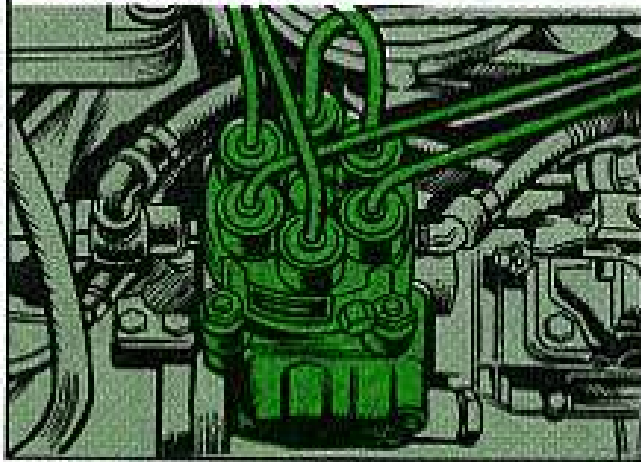
But you can sure mess things up by goin' hog-wild with that wrench, screwdriver or pliers! You can make trouble—like a leak—where there wasn't any before.

So play it safe—and smart—when you're checkin' fuel lines 'n' brake lines—anything that's got fluid in it:

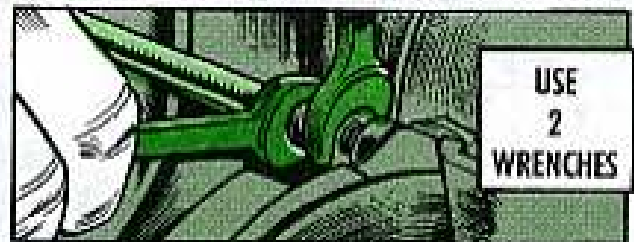


If you don't see a leak, leave the lines alone—they're OK.

Especially, look-but-don't-touch when you're eyeballin' the fuel injector pump and high-pressure fuel lines on your multifuel or straight-diesel truck.



Even when you do spot a leak at a tube or pipe connection, you'd better be mighty sure you've got 1, the authorization and 2, the right tools to tackle it. Most such hookups need 2 wrenches of exactly the right size — not a crescent wrench, pliers or plier-wrench. If you're not safe on both counts, report the leak to your mechanic.



USE
2
WRENCHES



WHEN'S TIGHT?

And you don't have to bust a gut when you're checkin' for loose parts with your wrench, screwdriver or pliers. If the nut, bolt or screw doesn't move easy, it's not loose! Too much muscle can bust a perfectly good part.

S'pose you do latch onto a loose part. Just snug it down easy — and then report it. Most parts on your truck have a specified torque — tight enough to do the job but not too tight. Your mechanic will get it right on the nose with a torque wrench.

DIG THAT COOL OPERATOR



THE **SECRET**
OF GOOD DRIVER
PM:

Do only
what you're s'posed
to do — and do all
of that.



TACTICAL TRUCKS ARE RUGGED, BUT...

THERE'S A LIMIT

Trucks are built to take a beating... but not from the guy at the wheel.

Tactical trucks were designed as a cross-country rough-and-tough general purpose vehicle. Loaded with men, supplies and equipment they rush cross country over hill and dale, thru mud, sand, snow, deep streams, highball up-and-down supply routes, but they can't take a driver that's a dum-dum with his operating savvy—the kind that grinds a truck into salvage material long before its time.

Nasty reports have been reaching Connie's pink-and-shell like cars that some boys have been cracking frames stripping transfer and transmission gears and burning up clutches like mad. Tsk, tsk, tsk.

It seems that they don't allow for the operating limitations placed on the truck by the terrain and tactical conditions.



LIMITING CONDITIONS

Almost every post, camp and station has its own maximum allowable road speed limits—and some of them are pretty low. Even some geographical areas have low maximum allowable speed limits. Korea, Frinrance, there,

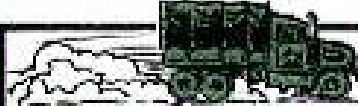
the maximum allowable speed on open roads is 25 MPH, in built-up areas it's 20 MPH and thru villages it's 10 MPH and even 5 MPH. These speeds are about equal to a sticky boy's trotting pace.

And there's the off-the-road travel that limits your payload and speed. In spite of these limiting operating requirements, your tactical trucks are designed to take them in their stride. But it's up to you to pull it off. You've got to know how to maintain a working balance between the vehicle's speed, transmission and transfer gear range and the engine RPM regardless of payload, terrain or speed limits.



Your—10 TM spells out the off-the-highway payload limits in the Tabulated Data Tables . . . and lists the maximum road speeds for various gear ranges pretty well; but it's the fine points of low-speed driving that's least understood.




A low road speed (25 MPH and under) operation would work like this . . .





2 1/2-Ton G742-Series Multifuel Trucks

| Transmission  | Speed in MPH | | Cruising  | Tachometer RPM | | Lowest Under Load |
|---|---------------|--------------|---|----------------|------|-------------------|
| | Transfer High | Transfer Low | | Shifting | | |
| | | | | Up | Down | |
| 1st | 0-9 | 0-5 | 15-2400 | 20-2600 | | 1200 |
| 2nd | 9-16 | 5-8 | 15-2400 | 20-2600 | 1400 | 1200 |
| 3rd | 16-27 | 8-14 | 15-2400 | 20-2600 | 1400 | 1200 |
| 4th | Stay in 3rd | 14-22 | 15-2400 | 20-2600 | 1400 | 1200 |
| 5th | | 22-28 | 15-2400 | 20-2600 | 1400 | 1200 |



5-Ton G744-Series Multifuel Trucks

| Transmission  | Speed in MPH | | Cruising  | Tachometer RPM | | Lowest Under Load |
|---|---------------|--------------|---|----------------|------|-------------------|
| | Transfer High | Transfer Low | | Shifting | | |
| | | | | Up | Down | |
| 1st | 0-6 | 0-3 | 18-2400 | 20-2600 | | 1400 |
| 2nd | 6-11 | 3-5 | 18-2400 | 20-2600 | 1800 | 1400 |
| 3rd | 11-22 | 5-10 | 18-2400 | 20-2600 | 1800 | 1400 |
| 4th | 22-39 | 10-19 | 18-2400 | 20-2600 | 1800 | 1400 |
| 5th | Stay in 4th | 19-25 | 18-2400 | 20-2600 | 1800 | 1400 |

THE CRITICAL SPOTS

When you're faced with low road speeds—like 25 MPH and under . . . Keep within the transmission gear range and road speeds just like it's shown on the dash instruction plate.

Too high a gear range can result in lugging.

To do this right you gotta . . .

1. Keep one good eye on the speedometer . . .



2. Keep the other eye on the tachometer . . .



3. Keep the transmission in the right gear range for that road speed . . .

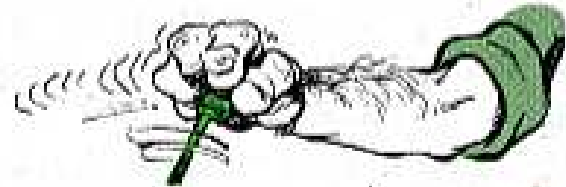


4. Keep the engine operating within the right RPM limits . . .

5. Keep your foot OFF the clutch unless you're actually shifting gears . . .



6. Keep the engine from lugging — when the engine RPM is forced down to 1400 . . . DOWN-SHIFT.



7. Never skip gears while shifting — Up or Down.



A DING-A-LING

The transfer . . .

Trained drivers pre-select the High or Low operating range before they move out.

LOW Gives a lower gear ratio and produces a higher power train torque. So it's main use is for off-the-road operation through mud, ditches, swamps, soft ground, sand, deepstreams and for steep hills, like in SEA.

HIGH Is for normal driving on highways and secondary type roads.

Although the transfer can be shifted from High to Low range while the truck is moving, it's not recommended as a standard practice. If the game is new to you, the best and safest method of making a High to Low shift is to drop your vehicle speed to 4-5 MPH — or better yet, bring the truck to a standstill. Then make the shift.

Follow this policy — make "moving" transfer shifts only when it's absolutely necessary.

CLUTCH CALAMITY

Slipping the clutch and revving up the engine to keep from down-shifting is a NO-NO!

When the engine RPM drops to about 1400-1200 regardless of the vehicle speed, cool cats **DOWNSHIFT**. And they keep their foot on the clutch only long enough to make the shift.

Learn to recognize the first signs of lugging — overloading the engine. The engine that powers your truck is hefty enough to do the job. All it needs is the proper grip on your load — you give it that with your transfer and gear range selection and the engine RPM you maintain.



HAND BRAKE ADJUSTMENT



Dear Half-Mast,

When the TM for a truck or trailer does not give specs for hand brake adjustment, is there some rule-of-thumb we can use to be sure it's adjusted right?

Dear Specialist N. M. I.,

The hand brake on your truck or trailer should hold the vehicle on a gentle slope with at least 1/3 of the brake lever's travel range "in reserve."

"Full range" is the distance your brake lever will travel when it's not connected to the brakes. So your parking brake should hold when the lever's been moved 2/3 of full range. This leaves 1/3 "in reserve."

You need this reserve for steep hills and heavy loads. If you've got only about 1/4 "in reserve", you're askin' for trouble — get your parking brake adjusted quick!

Half-Mast



BRAKES OF THE GAME

Two truckers met at the Pearly Gate, their stories were much the same — they'd pushed their luck in Buzzer Roulette and lost to that dangerous game.

Each had his way of risking the odds, taking a chance on his brakes, and both of 'em learned — the hardest way — that one chance is all it takes.

Freddie, the guy with sensitive ears, unhooked his warning device, so he didn't know his air was low . . .
. . . on a hill he paid the price.

Johnnie could take the buzzing noise, but he couldn't stand to wait . . .
. . . his brakes pooped out at a crossroad where he met a tank — and his Fate.

Do you wait for your buzzer to quit?
Is it safe to take off yet?
Do you have air pressure for your brakes?
If not, that's buzzer roulette!

WARNING

Do not put the truck in motion until the low air pressure warning buzzer is silent, and the air pressure gauge indicates pressure of at least 65 psi. Satisfactory braking action depends on this minimum pressure.

NEW FOR BUS



You're supposed to have the new, improved, rear suspension on your DSPA 5019 GMC 44-passenger bus — either through modification or production. If your bus was delivered after October 1967 (check block 19 on the DA 2408-8), it should have the new production setup.

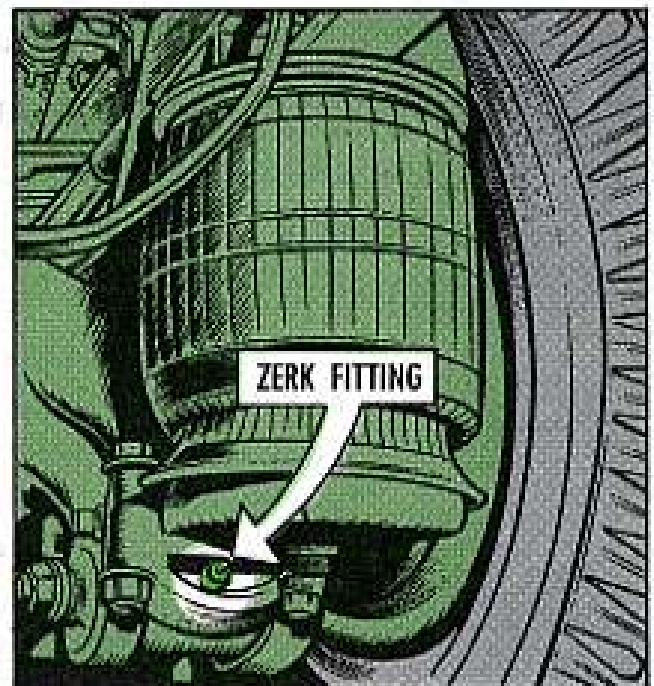
But it seems a lot of older jobs (delivered before October 67) haven't yet got the modification mentioned in USATACOM Msg TT 218780 (2 Feb 68). It's free!

GMC will take care of the whole deal on buses located in the 50 states. So check with your nearest GMC dealer.

Overseas . . . the kits have been shipped to major commands. If you haven't got your kit yet, send a request (thru channels) to: Commanding General, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MTC, Warren, Mich. 48090. Be sure to give the serial and contract number on each vehicle.

How do you tell if your bus needs the modification? Take a squint in front of the rear wheels at the rear spring front mounting bracket. Is the front of the

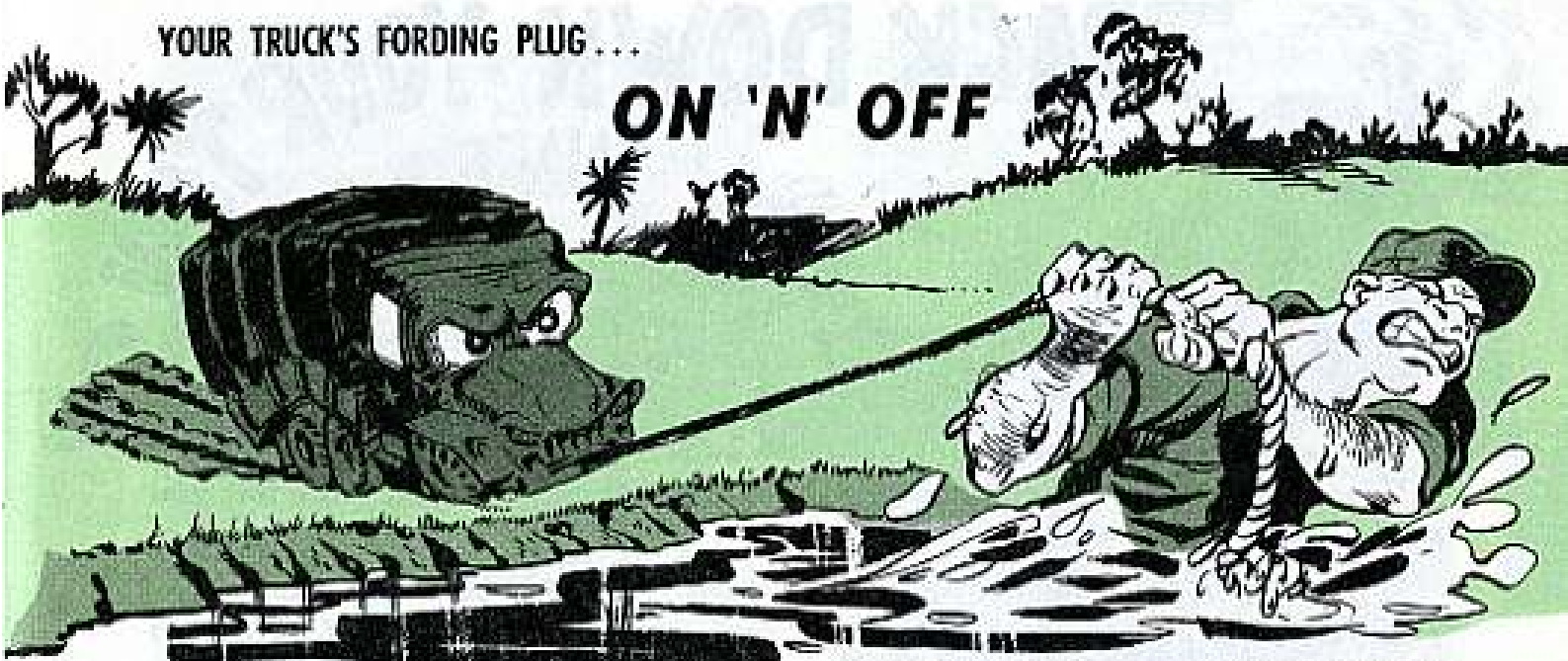
rear spring mounted onto the bracket with a long hex head bolt and nut? Or is a large pin and wedge bolt still used to do the job? If it's attached by the hex bolt/nut, your vehicle already has been modified.



Another way to tell is from the rear of the rear wheels. Take a look at the right side of the new suspension setup. Just ahead of the bellows you should spot a zerk fitting and another hex-head bolt/nut hookup. If either of these is missing, start action to get the kit.

YOUR TRUCK'S FORDING PLUG ...

ON 'N' OFF



You can take your truck to water, but can you make it ford?

Not without the flywheel housing drain plug, you won't.

This pipe plug is the key to a clean clutch. Get to know the one that fits your truck.

You screw it on for deep water fording and extremely wet weather.

You take it off for normal driving to prevent clutch slippage and break-downs caused by trapped engine and transmission lube.

When stored, this fording plug should always be taped up and in the glove or tool box of all wheeled ve-



IF YOU HAVE A STORAGE BOSS ON THE FLYWHEEL HOUSING, USE IT

hicles without automatic transmissions, just like it says in Item 3-3 of TB 750-981-1 (Jan 70), or if you have a storage boss on the multifuel flywheel housing, use it.

Is your plug handy?

If you need a fording plug, check your truck's repair parts manual.



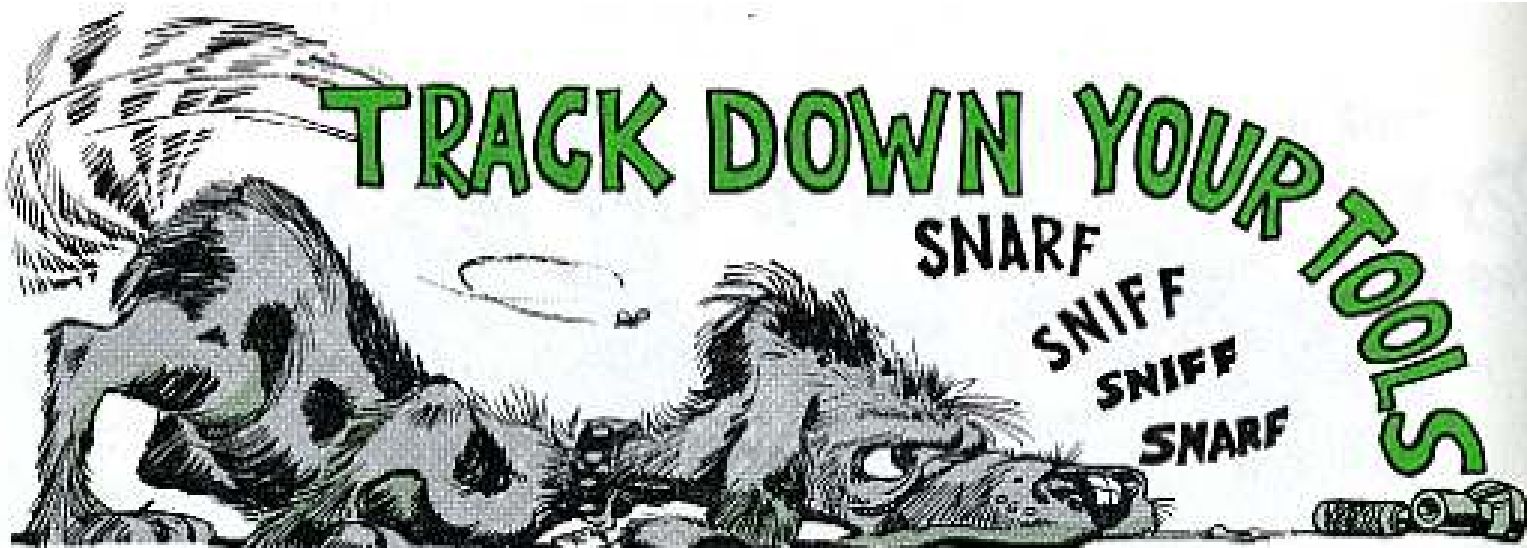
Here are some latest FSN's:

| | |
|-------------------------|---------------|
| 1/4-Ton, M151-Series | 4730-202-9170 |
| 3/4-Ton, G741-Series | 4730-278-3380 |
| 1 1/4-Ton, G890-Series | 4730-485-9289 |
| 2 1/2-Ton, G742-Series | 4730-278-3380 |
| 5-Ton, G744 (Gas) | 4730-088-8665 |
| 5-Ton, G744 (Multifuel) | 4730-359-3872 |
| 10-Ton, G792 (Diesel) | 4730-289-4770 |



TRACK DOWN YOUR TOOLS

SNARF
 SNIFF
 SNIFF
 SNARF



IF you had known the Federal Stock Number of the tool in your tool set, you would have ordered the tool.

IF you had ordered the tool, your equipment would not be deadlined.

IF your equipment had not been deadlined, your buddy would not have been zapped.

No ifs, ands or buts about it, you've got to have the tool and know how to use it.

To bring you up-to-date on your supplemental No. 2, tool set, here's what you should have in your set. SC 4940-95-CL-A08 (Dec 69), is the latest pub for your set.

When you need the whole set, you order it from your support, but if you need just some items to bring it up to date, you can order the individual items.

You get one each of the following unless noted.

TOOL SET, VEHICLE FULL TRACKED: Organizational Maintenance, Supplemental, No. 2, FSN 4940-754-0743, LIN W65747.

APRON, BLACKSMITH'S: leather, bib type, button closing at side, w/o tapes or pockets, 40½ in. lg, 27 in. w



FSN 8415-234-9254

2

ARGON, TECHNICAL: water pumped, 99.985 percent min assay as Argon, oil free, w/197 cu ft cyl (FSN 8120-151-9747)



FSN 6830-782-2637

BRUSH, WIRE, ROTARY WHEEL: 0.014 in. dia crimped S wire, 1⅞ in. w x 2 in. dia center opng, 6 in. od



FSN 5130-473-6444

BRUSH, WIRE, SCRATCH: S wire, curved hdl, rocker rect face, 1⅞ in. to 1¼ in. lg clear of block, 4 rows w, 18 rows lg, 5½ in. to 6¼ in. lg of brush part, 13⅛ to 14¼ in. o/a lg.



FSN 7920-291-5815

3

BRUSH, WIRE, SCRATCH: S wire, shoe hdl, stght rect face, 1⅞ in. to 1¼ in. lg of wire clear of block, 4 rows w, 16 rows lg, 4¾ in. to 5½ in. lg brush part, 10 in. to 10½ in. lg o/a

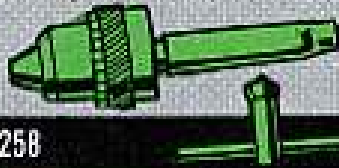
FSN 7920-282-9246

CHISEL, CAPE, HAND: half rd nose style, ¾ in. w cut



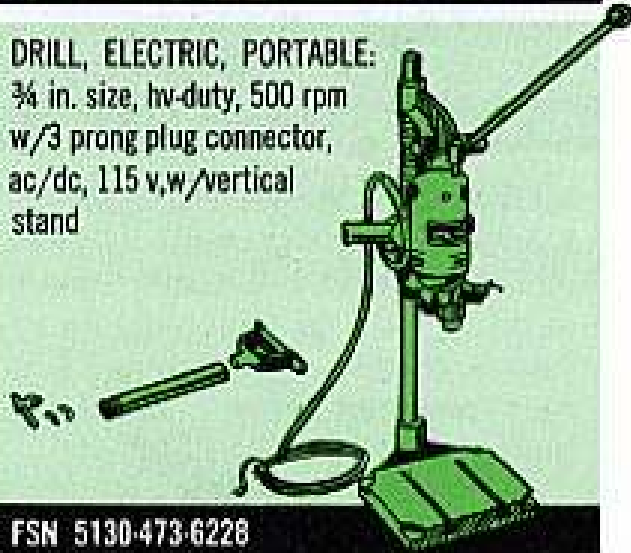
FSN 5110-271-9943

CHUCK, DRILL: 3 jaw key, ball brg type w/ arbor, No. 2 Morse taper hole, $\frac{3}{32}$ in. to $\frac{3}{4}$ in. cap., hv-duty



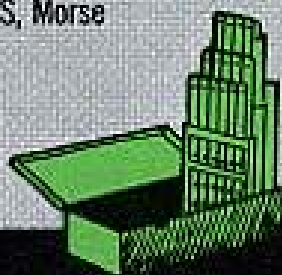
FSN 3460-231-2258

DRILL, ELECTRIC, PORTABLE: $\frac{3}{4}$ in. size, hv-duty, 500 rpm w/3 prong plug connector, ac/dc, 115 v, w/vertical stand



FSN 5130-473-6228

DRILL SET, TWIST: HSS, Morse taper shk, fractional series, w/case,



FSN 5133-596-8088

Consisting of 1 ea of the following:

| | dia. in. | flute lg. in. | o/a lg. in. |
|---------------|-----------------|----------------|----------------|
| 5133-189-9323 | $\frac{33}{64}$ | $\frac{45}{8}$ | $8\frac{1}{2}$ |
| 5133-189-9324 | $\frac{13}{32}$ | $\frac{45}{8}$ | $8\frac{1}{2}$ |
| 5133-189-9325 | $\frac{35}{64}$ | $\frac{47}{8}$ | $8\frac{3}{4}$ |
| 5133-189-9326 | $\frac{9}{16}$ | $\frac{47}{8}$ | $8\frac{3}{4}$ |
| 5133-189-9327 | $\frac{37}{64}$ | $\frac{47}{8}$ | $8\frac{3}{4}$ |
| 5133-228-1325 | $\frac{19}{32}$ | $\frac{47}{8}$ | $8\frac{3}{4}$ |
| 5133-228-1326 | $\frac{39}{64}$ | $\frac{47}{8}$ | $8\frac{3}{4}$ |
| 5133-228-1327 | $\frac{5}{8}$ | $\frac{47}{8}$ | $8\frac{3}{4}$ |
| 5133-228-1328 | $\frac{41}{64}$ | $\frac{51}{8}$ | 9 |
| 5133-228-1329 | $\frac{21}{32}$ | $\frac{51}{8}$ | 9 |
| 5133-228-1330 | $\frac{43}{64}$ | $\frac{53}{8}$ | $9\frac{1}{4}$ |
| 5133-228-1331 | $\frac{11}{16}$ | $\frac{53}{8}$ | $9\frac{1}{4}$ |
| 5133-228-1332 | $\frac{45}{64}$ | $\frac{55}{8}$ | $9\frac{1}{2}$ |
| 5133-228-1333 | $\frac{23}{32}$ | $\frac{55}{8}$ | $9\frac{1}{2}$ |
| 5133-228-1334 | $\frac{47}{64}$ | $\frac{57}{8}$ | $9\frac{3}{4}$ |
| 5133-228-1335 | $\frac{3}{4}$ | $\frac{57}{8}$ | $9\frac{3}{4}$ |

ELECTRODE, CUTTING AND WELDING: for $\frac{1}{4}$ in. to $1\frac{1}{2}$ in. mtl thk, ac/dc electrode arc (Eutectic Welding Alloys Corp, No. 1, size $\frac{5}{32}$ in., or equal)



FSN 3439-766-7749

10

GLOVES, LEATHER: men's work type, gauntlet cuff, cream or light gray, knitted wool and cotton lining, large size



FSN 8415-268-7859

GOGGLES, INDUSTRIAL: w/ventilated plastic eye cups and adj nose bridge, rd shape, 50-mm dia hardened clear glass nonpolarized lens ea aperture, headband supported, to be worn over personal spectacles, w/o carrying case



FSN 4240-269-7912

GRINDER, ELECTRIC, PORTABLE: 6 in. dia x 1 in. thk wheel cap., $\frac{5}{8}$ in. dia spl, ac/dc, 115 v, shielded to prevent radio interference, w/bench stand



FSN 5130-293-2488

BE SURE YOUR
SAFETY GEAR
IS IN GOOD
SHAPE.



YEOW!!
THESE GOGGLES
ARE SO SCRATCHED
I CAN'T SEE!

HELMET, WELDER'S: 1 pc molded plastic body, w/safety glass, w/tilting headgear and hinged cover glass holder, w/o cover pl or filter lens (Fed Spec GGG-A-211, type 1, class 2)



FSN 4240-540-0623

2

HOLDER, ELECTRODE, WELDING: clamp type, metallic filler type electrode, $\frac{1}{8}$ in. thru $\frac{1}{4}$ in. dia electrode cap., 300 amp, fully ins, air cooled, manually operated, $11\frac{1}{8}$ in. lg o/a



FSN 3439-238-1638

2

JACK, HYDRAULIC, HAND: self-contained, 30 ton cap., 11 in. closed h, 17 in. extended h, sgle or dble pump



FSN 5120-188-1790

2

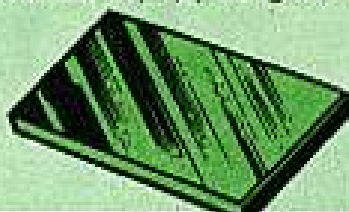
LENS, HELMET, WELDER'S: cover lens, $4\frac{1}{4}$ in. lg x 2 in. w



FSN 4240-203-7764

10

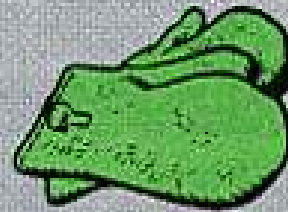
LENS, HELMET, WELDER'S: glass filter lens, co-bs shade no. 10, $4\frac{1}{4}$ in. lg x 2 in. w



FSN 4240-276-8940

10

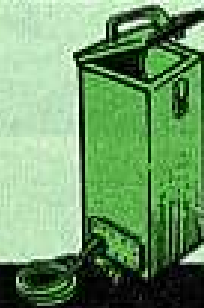
MITTENS, CLOTH: men's asb work type, w/gauntlet cuff, 1 sheath excl thumb, fingers 1, 2, 3, & 4 sheathed, napped natural wool knit lined



FSN 8415-266-8843

4

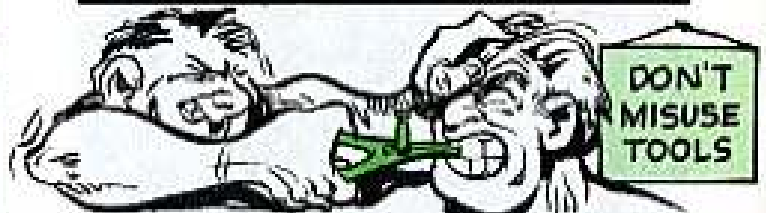
MOISTURE STABILIZER, WELDING ELECTRODE: S, portable 50 lb storage cap., 18 in. lg electrodes accommodated, w/heating element, ac/dc, 115 v, 200 deg F operating temp, w/thermostatic control, w/4 compartment dividers, w/power cord, treated to resist fungus growth



FSN 3439-440-0090

PLIERS, RETAINING RING: exter, fl jaws, stght tips, 0.870 in. to 1 in. ring size, 0.083 in. dia. w/bracket

FSN 5120-288-9717



PLIERS, RETAINING RING: exter, fl jaws, stght tips, 1.430 in. to 2 in. ring size, 0.070 in. dia, w/bracket

FSN 5120-293-0049

PLIERS, RETAINING RING: int, fl jaws, 0.25 in. to 0.31 in. ring size, 0.022 in. dia stght tips, w/o adj stop and spg

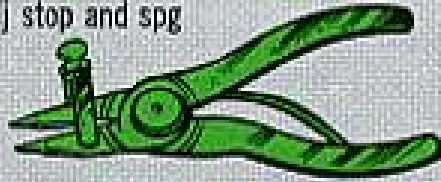


FSN 5120-596-1106

PLIERS, RETAINING RING: int, fl jaws, 1.020 in. to 1.370 in. ring size, 0.038 in. dia stght tips, w/adj, stop and spg

FSN 5120-293-0048

PLIERS, RETAINING RING: int, fl jaws, 1.750 in. to 2 in. ring size, 0.070 in. dia stght tips, w/adj stop and spg



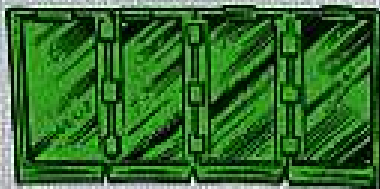
FSN 5120-293-0045

PLIERS, RETAINING RING: int, fl jaws, 3.00 in. to 3.50 in. ring size, 0.090 in. dia stght tips, w/adj stop and spg

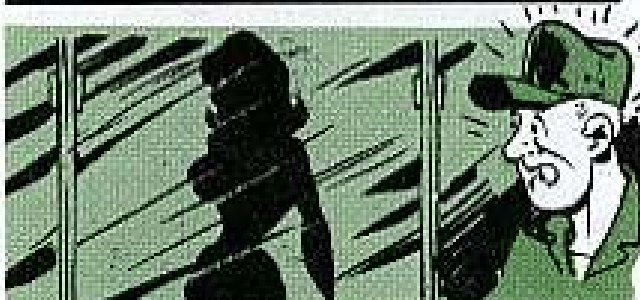


FSN 5120-293-0046

SCREEN, WELDING: collapsible, 3 hinge connected panels, 4 ft w by 7 ft h, dark green vinyl ctd fbrglass panels



FSN 3439-198-8348



SOCKET, SOCKET WRENCH: 1 in. sq-drive, 1¹/₁₆ in. 12 pt opng



FSN 5120-261-2836

SOCKET, SOCKET WRENCH: 1 in. sq-drive, 2³/₁₆ in. hex opng

FSN 5120-234-7647

SOCKET, SOCKET WRENCH: 1 in. sq-drive, 2¹⁵/₁₆ in. hex opng

FSN 5120-180-1013

SOCKET, SOCKET WRENCH: 1 in. sq-drive, 3¹/₈ in. hex opng

FSN 5120-234-7651

SOCKET, SOCKET WRENCH: u/o power tools, hex opng



| FSN | sq drive in. | opng |
|---------------|--------------|---------------------------------|
| 5130-293-1411 | 3/4 | 1 ¹ / ₁₆ |
| 5130-221-8017 | 1 | 1 ³ / ₁₆ |
| 5130-221-8019 | 1 | 1 ⁵ / ₁₆ |
| 5130-221-8020 | 1 | 1 ⁷ / ₈ |
| 5130-221-8021 | 1 | 1 ³ / ₁₆ |
| 5130-221-8022 | 1 | 1 ¹ / ₂ |
| 5130-221-8023 | 1 | 1 ⁵ / ₈ |
| 5130-221-8024 | 1 | 1 ¹¹ / ₁₆ |
| 5130-618-7786 | 1 | 1 ¹³ / ₁₆ |

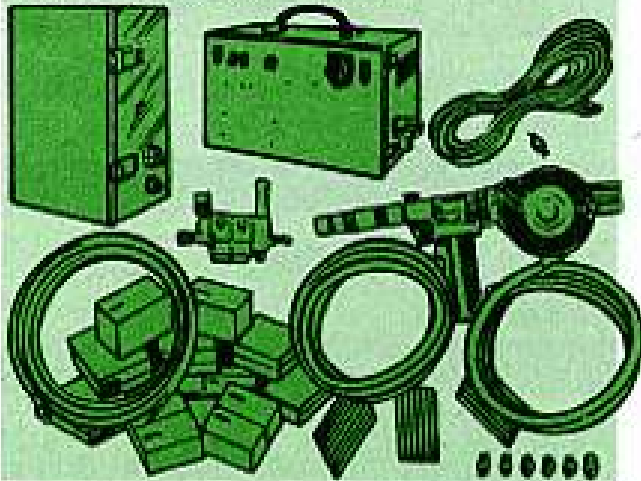
(Keep these until electric impact wrench, FSN 5130-317-8058, is no longer economically repairable then turn them in)

WELDING MACHINE, ARC: generator type, gaso-line engine driven, sgle operator remote control type, 300 amp dc arc, 60 amp at 20 v min & 375 amp at 40 v max cur., 115 v, 3 kw, dc auxiliary power, skid mtd



FSN 3431-239-8185

WELDING SET, ARC, INERT GAS SHIELDED: plastic or mtl lnd gun, equipped for $\frac{3}{4}$ in. wire, 115 v, dc, w/accessories



FSN 3431-691-1415

WRENCH, IMPACT, ELECTRIC: 1 in. sq-drive, $1\frac{1}{4}$ in. bolt dia cap, ac/dc 115 v, 60 c, sgle-ph, rvrs



FSN 5130-317-8058

Consisting of:
EXTENSION, SOCKET WRENCH: designed for power tools; sq end 1 in., 7 in. lg
 FSN 5130-449-6656
PIN, SOCKET RETAINER
 FSN 5315-390-5187
CONNECTOR, PLUG, ELECTRIC
 FSN 5935-054-3802
PACKING PREFORMED: "O" ring, $1\frac{3}{4}$ in. ID, $2\frac{1}{8}$ in. OD, $\frac{3}{16}$ o/a height
 FSN 5330-505-6211
 (Use wrench until no longer economically repairable, then replace with FSN 5120-961-9815)

WRENCH, OPEN END BOX: flare nut type, sgle-end, $1\frac{3}{8}$ in. 12 pt opng

FSN 5120-277-2697



WRENCH, OPEN END, FIXED: dble-hd type, 15 deg angle, $1\frac{3}{8}$ in. and $1\frac{1}{2}$ in. opngs, $\frac{3}{4}$ in. thk hd, $15\frac{3}{8}$ in. lg o/a



FSN 5120-449-8141

WRENCH, OPEN END, FIXED: dble-hd type, 15 deg angle, $1\frac{3}{8}$ in. and $1\frac{1}{2}$ in. opngs, $\frac{3}{8}$ in. thk hd, $15\frac{1}{2}$ in. lg o/a



FSN 5120-277-2325

WRENCH, OPEN END, FIXED: dble-hd type, 15 deg angle, $1\frac{1}{2}$ in. and $1\frac{3}{4}$ in. opngs, $\frac{3}{4}$ in. thk hd, $16\frac{1}{2}$ in. lg o/a



FSN 5120-277-9818

WRENCH, OPEN END, FIXED: dble-hd type, 15 & 75 deg angles, $\frac{5}{16}$ in. opng, $\frac{3}{16}$ in. thk hd, $4\frac{1}{4}$ in. lg o/a



FSN 5120-184-8543

WRENCH SET, COMBINATION BOX AND OPEN END BOX

FSN 5120-895-9566

Consisting of:

| FSN | opngs, in. |
|---------------|-----------------|
| 5120-895-9567 | $\frac{3}{8}$ |
| 5120-895-9568 | $\frac{7}{16}$ |
| 5120-895-9569 | $\frac{1}{2}$ |
| 5120-895-9570 | $\frac{5}{8}$ |
| 5120-895-9571 | $\frac{3}{4}$ |
| 5120-895-9572 | $1\frac{1}{16}$ |
| 5120-895-9573 | $\frac{3}{4}$ |
| 5120-895-9574 | $\frac{7}{8}$ |
| 5120-895-9575 | $1\frac{3}{16}$ |
| 5120-895-9576 | 1 |
| 5120-895-9577 | $1\frac{1}{8}$ |
| 5140-322-6009 | TOOL ROLL |



WRENCH SET, IMPACT, HAND: tor type 3/4 in. and 1 in. sq-drive rvrs, rtc type wrench, 2000 lb tor, w/sockets, hdl's, attachments, and case (Curtis Wright Corp, no. 41-00013, or equal)

FSN 5120-961-9815

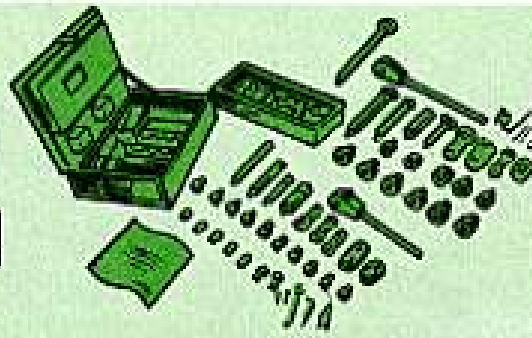
Consisting of:

| | FSN or mfr p/n |
|-------------------------------------|----------------|
| BOX, TOOL KIT | 80899 |
| EXTENSION: Special Budd Wheel | 42-71001 |
| EXTENSION: Special Budd Wheel | 41-71074 |
| EXTENSION: Special for turret studs | 42-71002 |
| EXTENSION: Special for turret studs | 42-70704 |

| EXTENSION, SOCKET WRENCH | lg. in. | FSN or mfr p/n |
|--------------------------|---------|----------------|
| | 7 | 5130-449-6656 |
| | 7 | 5130-449-6658 |
| | 9 | 41-70781 |
| | 14 | 5130-449-6659 |
| | 12 | 5130-449-6657 |

| | |
|---------------------|------------|
| LINK, OFFSET: Short | 41-70783 |
| LINK, OFFSET: Short | 41-71083 |
| LINK, OFFSET: Long | 41-70783-1 |
| LINK, OFFSET: Long | 41-71083-1 |
| MANUAL, MFR'S | |

| SOCKET, SOCKET WRENCH | opngs, in. | FSN or mfr p/n |
|-----------------------|------------|----------------|
| | 3/4 | 5130-227-6701 |
| | 13/16 | 5130-227-6676 |
| | 7/8 | 5130-227-6677 |
| | 15/16 | 5130-293-1411 |
| | 1 | 5130-227-6679 |
| | 1 1/16 | 5130-293-1412 |
| | 1 1/8 | 5130-227-6681 |
| | 1 3/16 | 5130-293-1413 |
| | 1 1/4 | 5130-227-6683 |
| | 1 5/16 | 5130-227-6684 |
| | 1 3/8 | 5130-227-6685 |
| | 1 1/2 | 5130-227-6686 |
| | 1 1/2 | 5130-236-3979 |



GIVE THE OLD BLOODHOUND A REST — KEEP TRACK OF YOUR TOOLS!

WHAT'S THE FSN ON THE TOOL BOX.



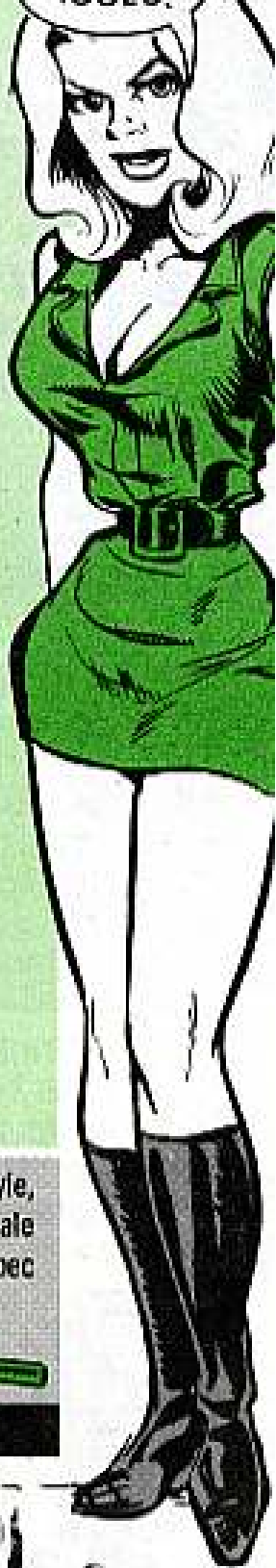
| SOCKET, SOCKET WRENCH (Cont'd) | opngs, in. | FSN or mfr p/n |
|--------------------------------|------------|----------------|
| | 1 1/8 | 5130-684-0919 |
| | 1 3/8 | 5130-221-8023 |
| | 1 1/4 | 5130-221-8024 |
| | 1 3/4 | 89561 |
| | 1 13/16 | 5130-221-8025 |
| | 1 7/8 | 5130-235-5880 |
| | 1 15/16 | 89621 |
| | 2 | 5130-235-5881 |
| | 2 1/16 | 89661 |
| | 2 1/8 | 89681 |
| | 2 3/16 | 5130-293-1375 |
| | 2 1/4 | 5130-293-1374 |
| | 2 5/16 | 89741 |
| | 2 3/8 | 5130-293-1373 |
| | 2 3/4 | 89781 |
| | 2 1/2 | 89801 |
| WRENCH, BOX | | 41-00787-6 |
| WRENCH, BOX | | 41-01087-6 |
| WRENCH, BOX | | 41-00787-8 |
| WRENCH, BOX | | 41-01087-15 |
| WRENCH, BOX | | 41-00787-11 |
| WRENCH, IMPACT HAND:750 | | 5120-440-8047 |
| WRENCH, IMPACT HAND:1000 | | 5120-440-8011 |

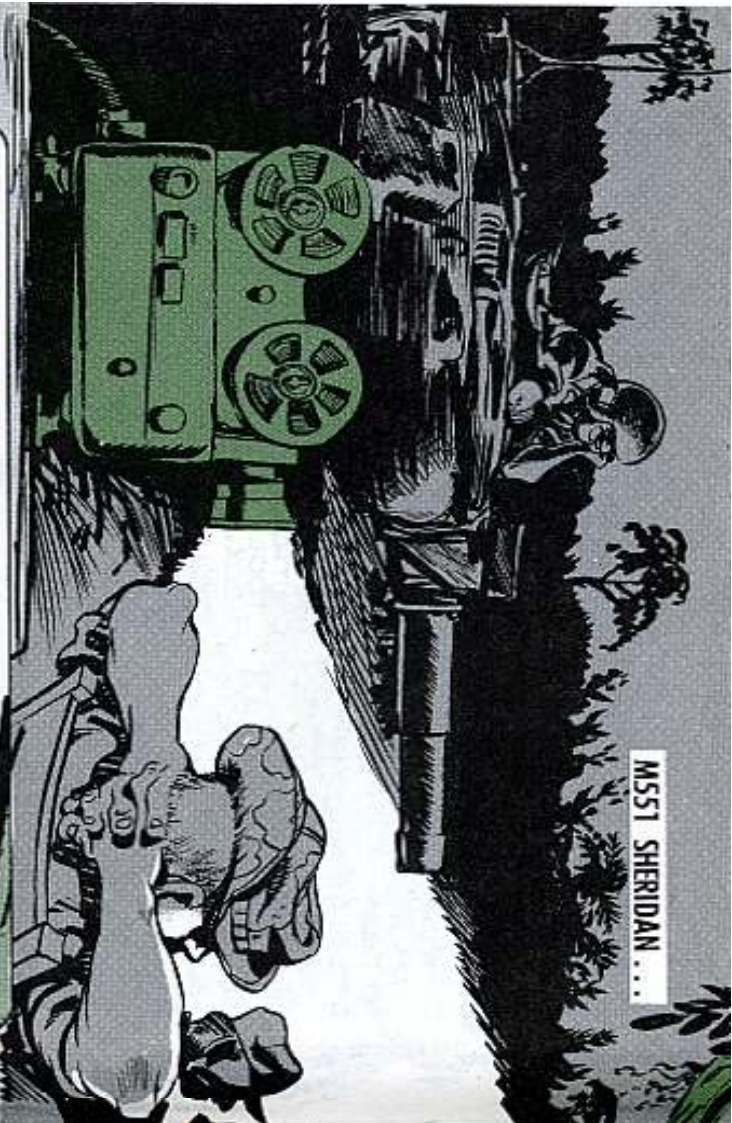
WRENCH, TORQUE: rigid frame end drive style, w/visual dial indicating tor mech, 3/4 in. male sq-drive, 0 to 600 ft-lb cap., w/case (Fed Spec GGG-W-686, type II, style A)



FSN 5120-221-7983

HEY! HAND ME A SMALLER SOCKET.



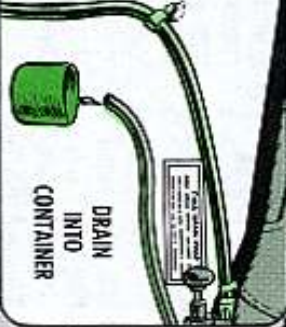


HERE ARE A FEW MORE GOOD-TO-KNOW ITEMS ON YOUR MS51 SHERIDAN.

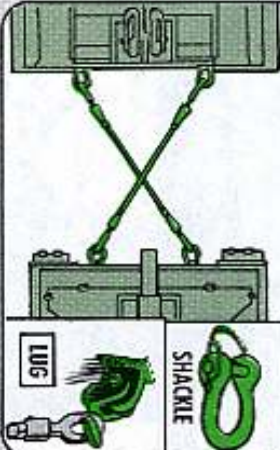
SELECTED SHORT SUBJECTS



FUEL TANK CONDENSATION: Pump out condensation daily with the turret pump. A decal near the pump tells how it works. In case the decal is missing, page 5-12 of your TM 9-2350-230-12 has a photo. The decal doesn't say so but it's best to catch the contaminated fuel in a container instead of draining it into the crew compartment where it could ruin the voltage regulator and make a messy stop that might also be a fire hazard.



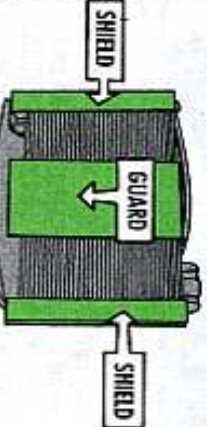
TOWING SHACKLES: A tow bar is better but 2 tow cables will work O.K. Always take up the slack in the cables very slowly when you start to tow. Trying to do the job with one cable is a sure way to rip your shackles off.



HOLD IT! YOU'RE GONNA RIP MY SHACKLES!



SPEEDOMETER ADAPTER: The speedometer adapter key is easy to lose when you pull the power pack. You can't get along without it, either, because the odometer won't work unless it's in place. So secure it either by cementing it in place with epoxy or tape it to the speedometer cable so it won't get lost when not in use.



RADIATOR GUARD: When removing/installing the power pack, protect your radiator with a guard. The specs are on page 9-8 of your trusty -12 TM. Aluminum is the best material to use, with steel second choice and wood third.

COOLING FAN: Locking the cooling fan drive is a good idea in hot places such as SEA. Page 5-11 of your -12 TM says it's an emergency procedure but you can figure hot weather is an emergency.



KEEP THE INSULATION: The insulation around your engine exhaust is provided on a once-only basis. Replacement engines come without it — so reuse the old insulation with the new engine. It helps prevent fires in the engine compartment.

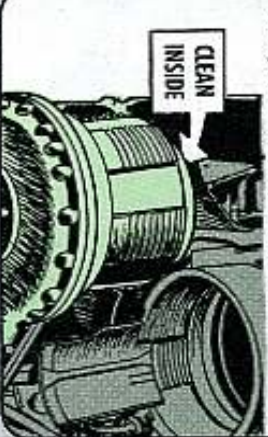


SAFETY PRECAUTIONS

1. When you transfer ammo from the hull to turret storage, be sure the turret power switch is turned off — otherwise a sudden movement of gun or turret could clobber somebody.
2. Whenever you're operating with turret power switch on and/or in STAB Mode, be alert so a sudden movement of the gun can't hurt you.



FIRING PROBE: Clean the probe after every few rounds if you can but, in any case, clean it after 10 rounds.



MISSILE FIRING: When you're firing conventional ammo in STAB Mode and want to launch a missile, you just switch your fire-control handle to MISSILE. This will automatically take you out of STAB Mode even though your STAB Mode switch is still up.



PINK PLYCAT DOWN 24 HRS.



I TOLD YOU YA SHOULD'A PUT THAT INSULATION BACK ON THE EXHAUST.

MISSILE RACKS: Check for tightness at your before-during-after inspection. If the bolts work loose the missiles can bounce around and get dented.

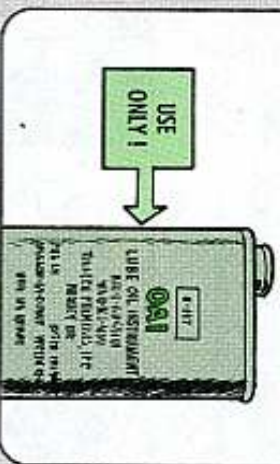


WATCH — DONT STEP: Be careful not to step on the missiles when you climb in and out of the vehicle. The nose cones dent real easy — remember?

HARRY!
I THINK THAT'S THAT ROUND YOU STOMPED ON!



COMPRESSOR NEWS — Replacement compressors are shipped without oil in the oil reservoir. Make sure you add oil to the FULL level on the dipstick (about ½ pint) before operating or you'll ruin your compressor within 2 hours.



DUMMY ROUND: If and when you load the M29 dummy round (M29A if you happen to have the deep slot) make sure your ejector is in the NON-EJECT (UP) position.



Use only OAI oil (instrument lubricating oil), FSN 9150-231-6686, 1 pt can or FSN 9150-223-4129, 1 qt can, Mil-L-6085.

Check compressor oil level DAILY and add as needed. Change oil every 1200 rounds or after 100 hours of operation. (Note: The 100 hours of operation is scheduled to be added to TM 9-2350-230-12 (Jun 66) by Ch 7).

Give your compressor room to breathe. Keep gloves, rags and debris out of the area.

THERE'S A FEW SIMPLE TRICKS IN HANDLING THAT LITTLE SYSTEM YOU SHOULD LEARN!



EYE

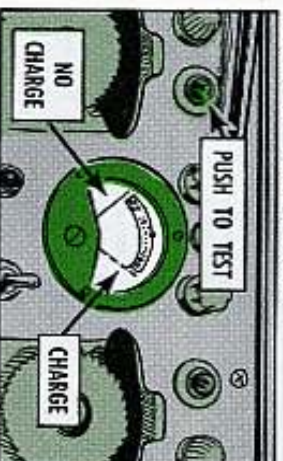
ROUNDUP



CAREFUL CHARGING

You can damage both the batteries and battery charger by allowing more than 2-1/2 hours charging time.

But the closer you come to that full charge the better. Testing the charge on each battery too often overheats the weak test circuit in the charger. So wait until each battery has been charged for at least two hours before pushing its CHARGE TEST button.



If you get a low reading on an individual battery, it may be going dead. But if you get no reading for any of the batteries you're charging, you know something's wrong with the charger.

Chances are the resistors in the test

circuit are burned out from overheating. Only a continuity check by your support organization can tell for sure.

SAVE THEM... PLEASE

Once you fire your real weapon, the missile disappears... leaving you with the remaining components. The unit that fires the missile is responsible for ASAP recovery of these expensive non-expendable by turning them in to DS.

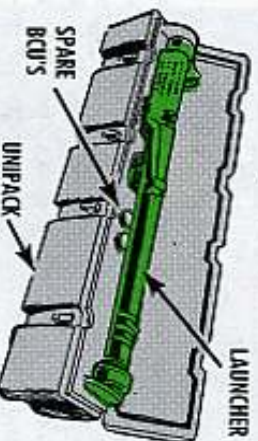
They include spare battery coolant units, the monopak container and the



launcher. You can identify them by separate FSN's like this:

- Battery Coolant Unit 1440-837-8343
- Shipping and Storage Container, GMS, XM571, Monopak 8140-937-1340
- Missile Launcher 1440-937-1010

There's also an XM 585 unipack container... 8140-880-7285... which is not on the automatic return list. However, it makes a convenient shipping container for returning the launcher and spare BCU's.



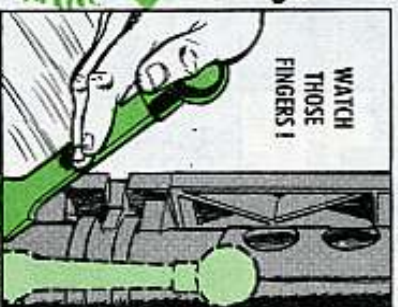
That Redeye guided missile system you're carrying around is a rough customer. Like any tough guy, you treat him with respect if you don't want him to let loose in your direction instead of the enemy's.

Most of the time you'll be handling the XM76 trainer set rather than the actual firing system. That means you're working with the XM49E3 tracking head trainer... the one with the compressor pump handle on it.

HEEL IT!



WATCH THOSE FINGERS!



The trick here is to guide the handle back to storage position with the heel of your hand each time you pump up the gas system. Wrapping your fingers around the handle will guarantee you a set of bruised knuckles.

And don't worry about that "popping" noise you hear when you depress the handle. It's a normal part of this system's gas pressurization cycle.



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 (Jan 69), and Ch 4 (Feb 70), TMs, TB's, etc.; DA Pam 310-6 (Jul 69), and Ch 3 (Apr 70); SC's and SM's; DA Pam 310-7 (Mar 70), MWO's and DA Pam 310-9 (May 69), COMSEC Pubs.

TECHNICAL MANUALS

TM 1-0H-38-5, Apr, OH-58.
 TM 3-1330-203-10, Apr, Launcher, Smoke Grenades, HC and WP, XM176.
 TM 5-2420-206-12, Mar, 290M Tractor.
 TM 5-3655-217-20P, Mar, Storage Tanks.
 TM 5-3805-235-25P, Apr, Towed Scraper B Co Yd.
 TM 5-3805-244-20P, Feb, 20-T Dump Truck.
 TM 5-3810-287-20P, Apr, D & D 12½-T Crane-Shovel.
 TM 5-4110-228-14, Feb, 3000 BTU Refr Unit.
 TM 5-4110-225-24P, Mar, Refr Unit, 3000 BTU.
 TM 5-4110-229-14, Mar, Refrig Unit, 3000 BTU.
 TM 5-4520-234-14, Feb, 60,000 BTU Space Heaters.
 TM 5-4930-227-24P, Apr, Tank Pump Unit TK Mounts.
 TM 5-4940-221-20P, Mar, Shop Equipment Set 3.
 TM 9-6130-470-12, Mar, TOW.
 TM 10-1670-208-23, Apr, Aerial Del Equip.
 TM 10-1670-240-20, Apr, Aerial Del Equip.
 TM 10-3930-216-20P, Apr, Fork Lift Truck 4000 lb.

TM 10-3930-234-20P, Jul, 4000 lb Fork Lift, Trucks.
 TM 10-3930-606-15, Jan, 6000 lb Fork Lift.
 TM 10-3930-615-13, Feb, Fork Lift Elec.
 TM 10-3950-204-20P, Feb, Warehouse Cranes.
 TM 11-5821-284-20, Apr, Antenna AS-2285/ARC.
 TM 11-5965-285-23, Apr, Headset-Mic 19LB-87.
 TM 55-1500-204-25/1, Apr, Gen Aircraft Maint Manual.
 TM 55-1510-204-10/6, Mar, OV-1.
 TM 55-1510-204-20PMD, Mar, OV-1.
 TM 55-1510-204-20PMA, Mar, -OV-1.
 TM 55-1510-204-20PMP/1, Feb, OV-1.
 TM 55-1510-204-20/1-1, Feb, OV-1.
 TM 55-1510-204-20/1-2, Feb, OV-1.
 TM 55-1520-202-20PMD, Apr, CH-34.
 TM 55-1520-209-20P-1, Mar, CH-47.
 TM 55-1520-209-20P-2, Mar, CH-47.
 TM 55-1520-214-20P, Apr, OH-6.
 TM 55-1520-214-20PMD, Apr, OH-6.
 TM 55-1520-214-20PMP, Apr, OH-6.
 TM 55-1520-227-CL, Mar, CH-47.
 TM 55-1520-228-20P, Apr, CH-58.

ESC'S

TM 9-1425-470-ESC, Mar, TOW Anti-tank/Assault Weapon.
 TM 9-3320-211-ESC, Feb, Trucks 5-ton.

MODIFICATION WORK ORDERS

9-1090-203-20/1, Apr, Armament Subsystem.
 9-1220-203-50/8, May, M13A1C Ballistics Computer.
 9-1220-233-30/1, May, M4 (T23) Ballistics Drive.
 9-1240-227-50/2, May, Tank Periscope M20A1.

9-1240-324-30/1, Apr, Callimator M1.
 9-1240-324-30/2, Apr, Callimator M1.
 9-1430-513-30/4, May, Hawk Radar.
 9-2300-224-30/25 C1, Apr, Carrier M577 and M577A1.
 9-2350-242-20/1, Apr, M88.
 9-2350-242-30/5, Apr, M88.
 9-2350-242-30/6, Apr, M88.
 9-2350-242-30/7, Apr, M88.
 9-2350-242-40/1, Apr, M88.
 9-2350-244-20/9, Apr, Carrier, M114/M114A1.
 11-5810-221-45/9, May, Com Sec Equip TSEC/KW-7.
 11-5810-221-45/11, May, Com Sec Equip TSEC/KW-7.
 55-1500-210-30/28, Apr, CH-47.
 55-1500-210-30/34, Apr, CH-47.
 55-1510-204-30/15, May, OV-1.
 55-1520-217-30/22, May, CH-54.
 55-1520-227-30/2, May, CH-47.
 55-1520-228-30/4, May, OH-58.

MISCELLANEOUS

AR 600-58, May, Operator Permit, Mech Equip.
 AR 730-19, Apr, Maint Float.
 LO 5-3810-288-12-5, Feb, Hornisch-lerger Crane-Shovel, 20-T Mod 320-T.
 LO 5-3810-289-12-4, Feb, 12½-T Crane-Shovel.
 LO 5-4940-219-12-1, Jan, Shop Equip Semi-Trailer Mid.
 LO 10-3610-200-12, Feb, Printing and Repr.
 LO 10-3930-611-12, Jan, Elec Lift Fork, 6000 lbs.
 SB 700-20, Feb, Adepled/Reportable Items.
 SB 740-2090-97-E03, May, Repair Kit, Press.
 TB 55-1615-217-20/2, May, CH-54.

No Chassis Types

Even though equipment category code HT in TM 38-750 calls for records on "Trailers All Types," it's not meant to cover chassis types used only to put wheels under compressors, generators and the like. And no records are required for chassis trucks.

Ground Mounts

Cal .30 and .50 and 7.62-MM ground mounts for machine guns include pintles, platforms, traversing and elevating mechanisms. These parts belong to the mounts — not the weapon — and should be assembled to the mount at turn-in time.

JOE'S DOPE

THE LI'L ENGINE THAT CAN

... IF IT'S NOT
FORGOTTEN

KONKED
OUT AGAIN
... MAN, THESE
LITTLE ENGINES
BUG ME!

MAN, YOU
ARE TALKING
ABOUT THE SILENT
MAJORITY IN
ENGINES... JUST
BECAUSE THEY'RE
LITTLE NOBODY
PAYS MUCH
ATTENTION
TO THEM!



YET THESE LITTLE GIANTS
RUN EVERYTHING FROM FIELD
GENERATORS TO WATER STILL!



THESE LITTLE ENGINES SHOULDN'T
BE OVERLOOKED, THEY NEED PM
ATTENTION SAME AS THE BIG
FELLOWS... LET
ME GIVE YOU A WALK-THRU



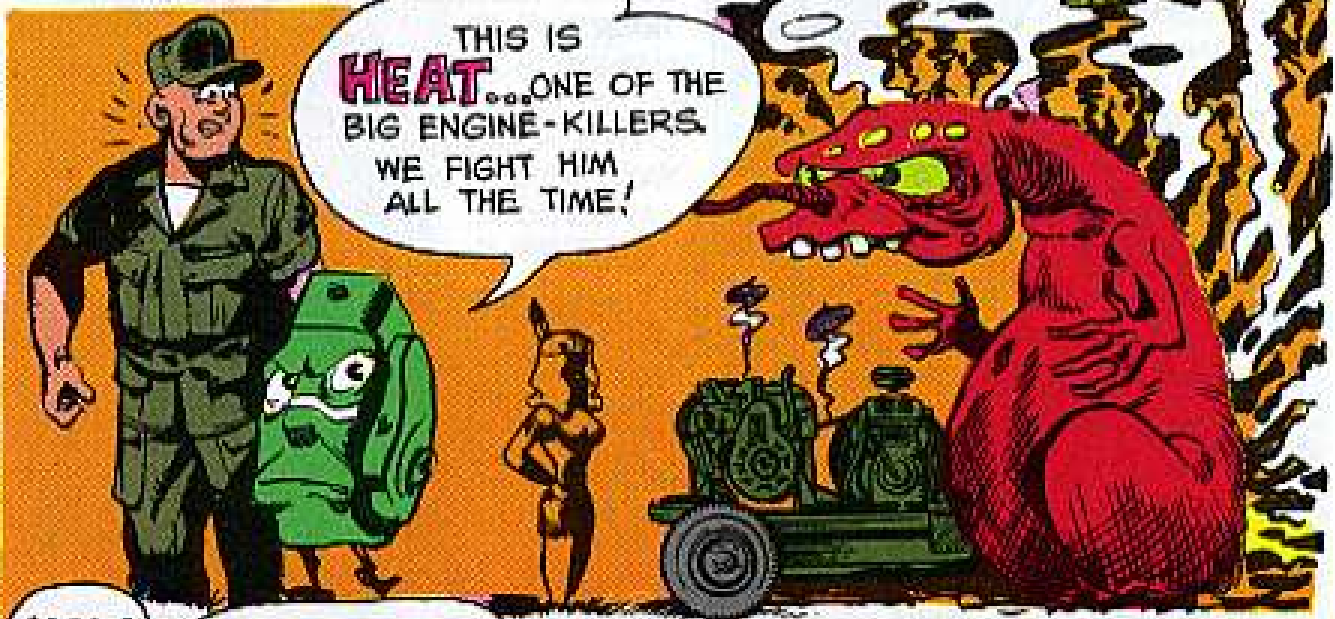


HUH, WHERE AM I?

THIS IS LI'L CHIEF MANY PURPOSE ENGINE!

WE'LL SHOW YOU AROUND,

MAN, YOU'RE IN ENGINE TERRITORY WHERE DANGER STALKS!



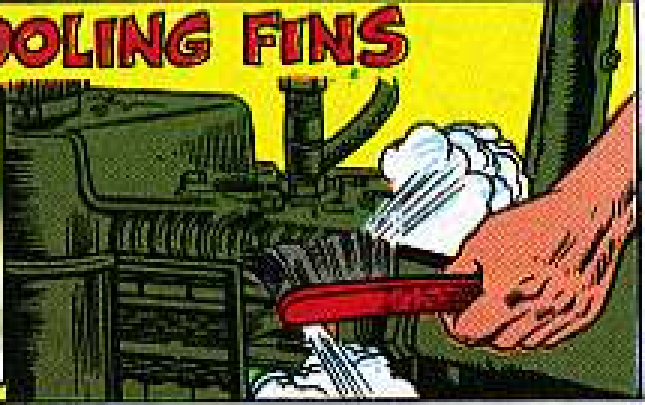
THIS IS **HEAT**... ONE OF THE BIG ENGINE-KILLERS. WE FIGHT HIM ALL THE TIME!

HOW?

BY VENTILATION AND CLEANING!

COOLING FINS

USE WIRE BRUSH TO KEEP 'EM CLEAN



SHROUDS AND BAFFLES

NEVER REMOVE 'EM... Y'CAN BURN UP AN ENGINE THAT WAY

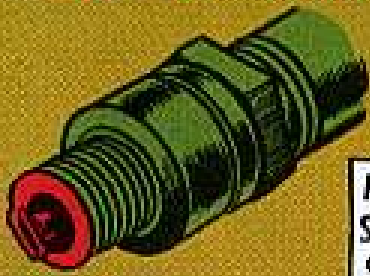


RELIEF VALVES

SHOULD WORK FREE, IF STUCK, REMOVE FITTING AND CLEAN IN SOLVENT



ADJUSTMENTS...

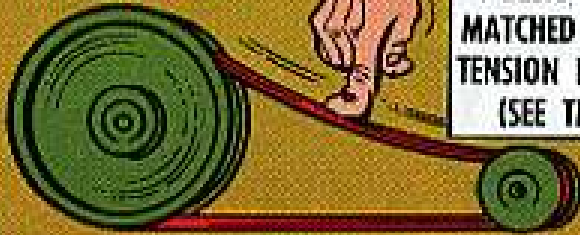


PLUGS SHOULD BE GAPPED AND CLEAN

CARBURETOR MIX NOT TOO RICH OR LEAN

MAGNETOS SHOULD BE SET RIGHT

BELTS



BE SURE V-BELTS ARE MATCHED AND TENSION RIGHT (SEE TM)

LUBES



ALWAYS USE THE RIGHT GRADE OF OIL AND CHECK THE LEVEL EVERY FEW HOURS WHEN RUNNING!

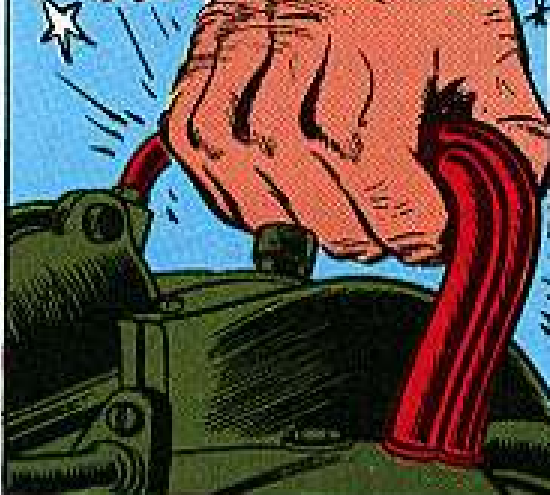
NEVER RUN AN ENGINE DOWN IN A HOLE... GIVE IT LOTS OF **VENTILATION...**



...AND NEVER RUN A TRUCK-MOUNTED GAS PUMP TOO LONG WITH THE TAIL GATE UP.



HANDLING



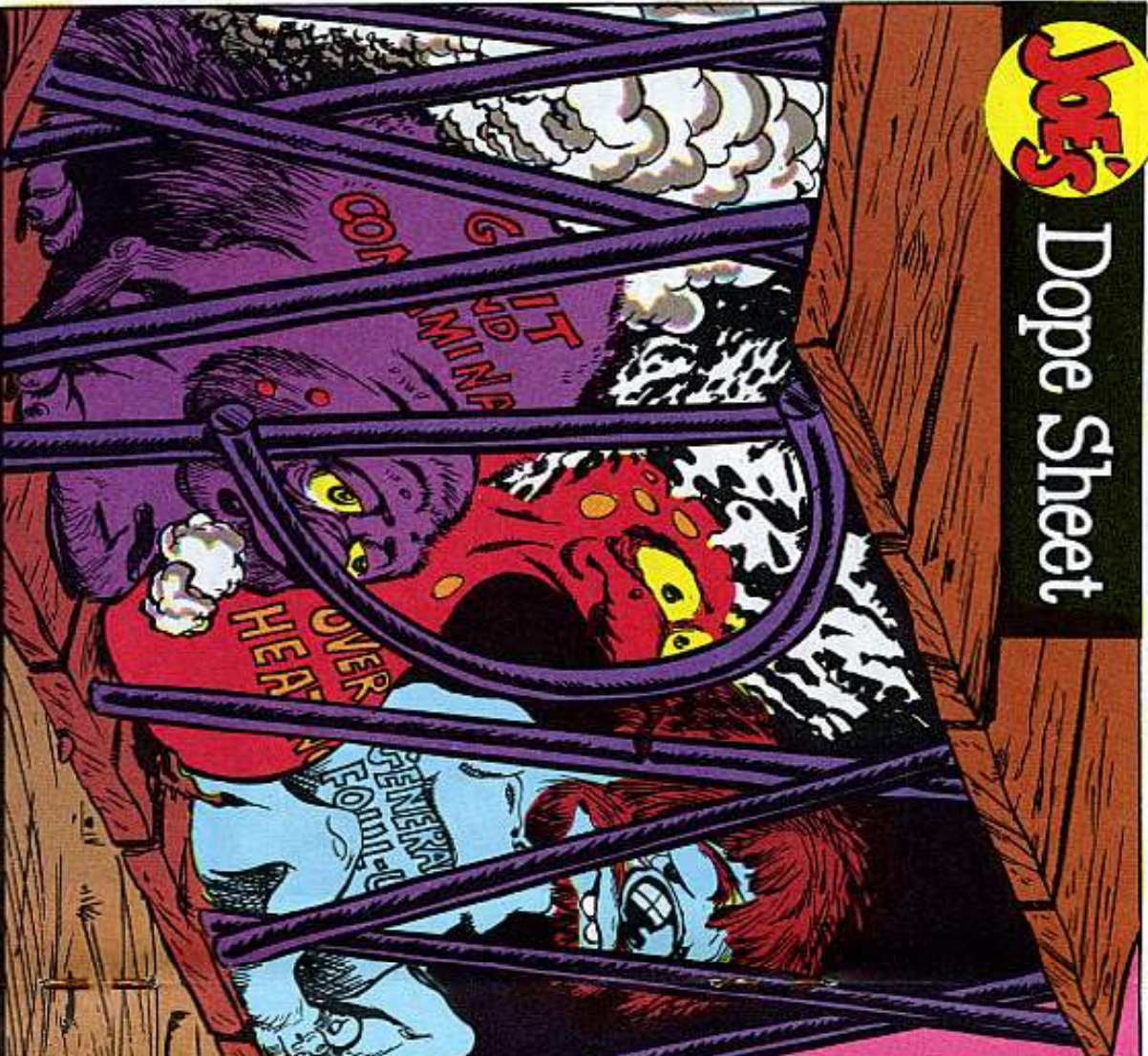
USING COMPONENTS AS A HANDLE IS A SURE-FIRE KILLER. ALWAYS, GRAB IT BY ITS FRAME OR BASE

HERE'S ANOTHER BIG ENGINE KILLER... SOON'S I POST THIS PIN-UP I'LL TELL YOU ABOUT IT!



Joe's

Dope Sheet



**PROTECT THE
LITTLE ENGINE!**

NEGLECT IS
WHAT OPENS THE
WAY!

FOR TROUBLES
THAT RUIN YOUR
DAY.

YOUR
ENGINE'S
THE HEART:

OF YOUR
MAINTENANCE
CHART--

PM* IT, AND CHASE
WOE AWAY!

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.

KOF KOF

HE'S **GRIT**
'N' CONTAMINATION!
LOOKS LIKE HE CAN
CHEW AN ENGINE
TO BITS!

RIGHT... FIGHT
HIM BY NEVER
RUNNING WITHOUT
PROTECTION... LIKE
LOCATING
IN SHELTERED
PLACES... KEEPING
OFF GROUND!



SANDBAG
SHELTER



SOLID
BASE

HERE'S A PROTECTED
SET-UP... NOTICE THE
DUNNAGE, SOLID
FOUNDATION AND
PLENTY OF
VENTILATION.



WE GOTTA BREATHE
SO WE WATCH OUR
FILTERS.



AIR



FUEL



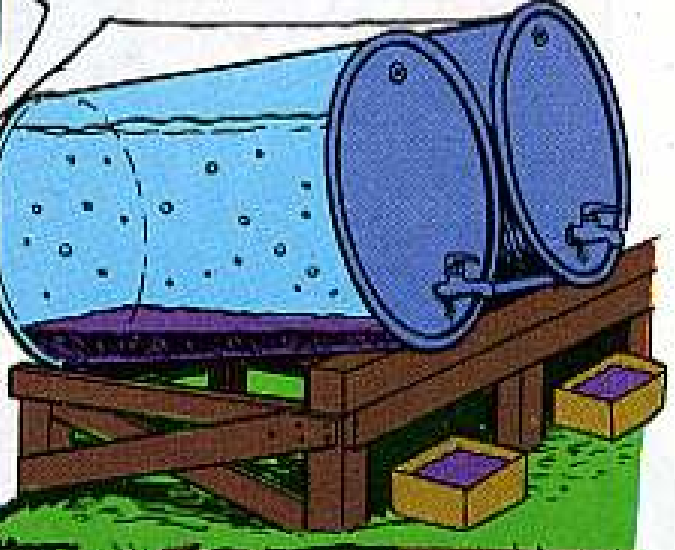
OIL



CLEAN FUEL IS A MUST...

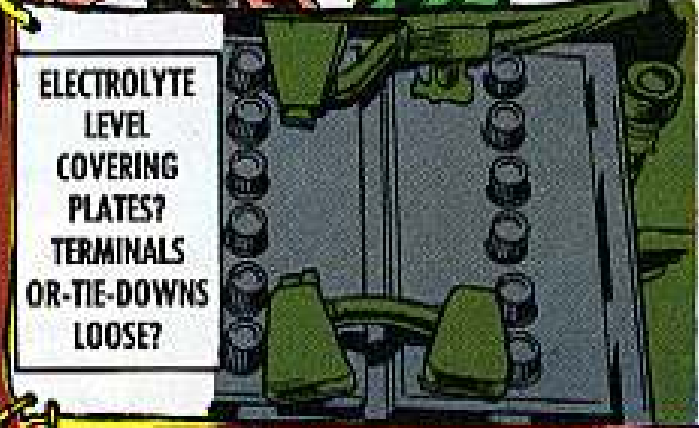


SO WE STORE IT CAREFULLY AND KEEP CANS CLOSED AND SPIGOTS CLEAN.

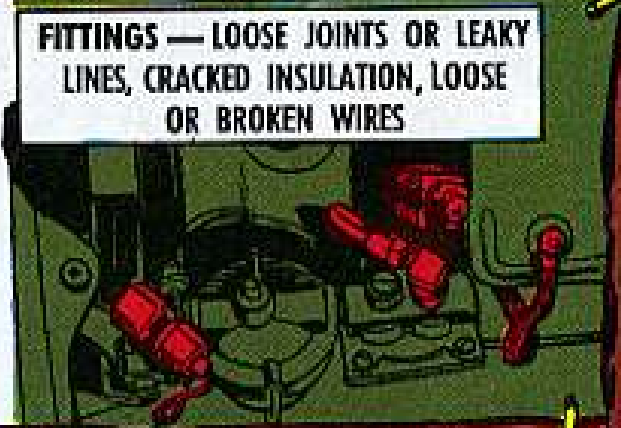


WHAT'S THAT?

THAT'S A FOUL-UP MONSTER... HE SNEAKS UP FROM BEHIND AND CRUNCH



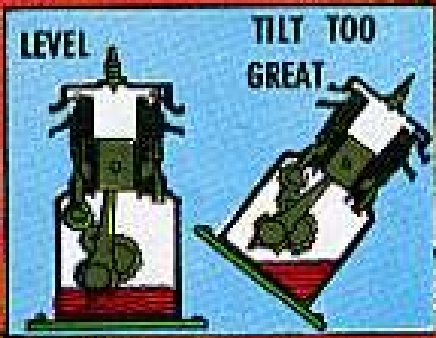
ELECTROLYTE LEVEL COVERING PLATES? TERMINALS OR-TIE-DOWNS LOOSE?



FITTINGS — LOOSE JOINTS OR LEAKY LINES, CRACKED INSULATION, LOOSE OR BROKEN WIRES



DON'T SET IT OFF LEVEL — 15° IS THE LIMIT.

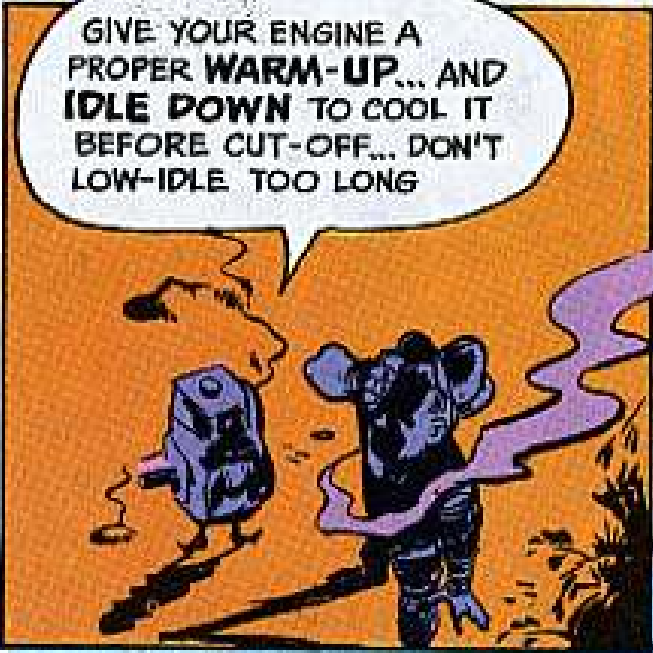




WHEN **CLEANING** USE SOLVENT... WIPE UP OIL SPILLS - THEY COLLECT GRIT, NEVER CLEAN WITH GASOLINE.



MAKE SURE YOU GO BY LOCAL SAFETY RULES WHEN RUNNING IN DANGER ZONES.



GIVE YOUR ENGINE A PROPER **WARM-UP**... AND **IDLE DOWN** TO COOL IT BEFORE CUT-OFF... DON'T LOW-IDLE TOO LONG



SAY, YOU FELL ASLEEP DURING MY ENTIRE TALK ...SHALL I REPEAT THE WHOLE THING?

NO, NO, NO. I GOT THE MESSAGE. HEY, MAN, WHAT PERFUME DO YOU WEAR. IT'S A BLAST.

R & R FOR
EVERYTHING

QUICK REPAIR
DEPENDS ON YOU

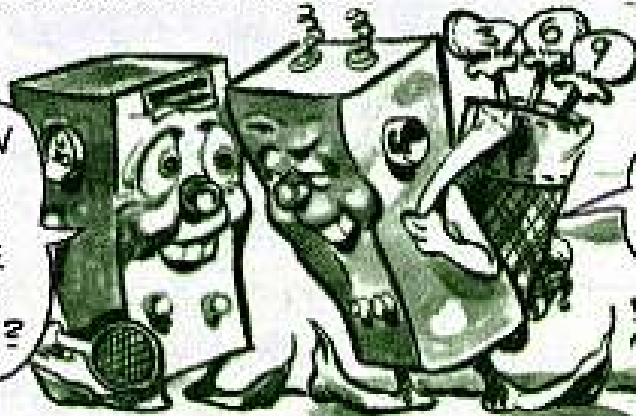
You know what R&R does for you. Think on what R&R might do for your sick and weary electronics equipment. It could be like Bangkok after a dozen LRP's.

HOW LONG IS THE R+R HERE?



Only your equipment's R&R readout is "Repair and Return." Long title: Repair and Return of Electronic Equipment. The types who use it most dub it "Quick Repair," or "RRU" . . . for Repair and Return to Unit.

HOW DO WE RATE THIS DEAL?

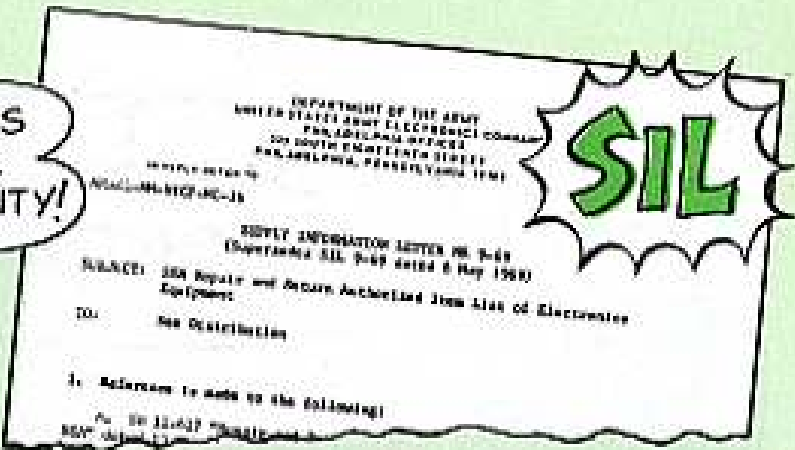


WE'RE SPECIAL ELECTRONICS ITEMS THAT CAN'T BE REPAIRED OR EXCHANGED!

Briefly, it's a dustoff for common gear . . . in which selected electronics items which can't be repaired or exchanged are air-mailed by your support to designated CONUS depots for repair and return to you.



HERE'S YOUR AUTHORITY!



These selected items and authorized evacuation units are listed in the USAE-COM Supply Information Letter (SIL), which filters down to your DSU.

Night vision equipment is on the way back to you within 5 days of receipt by Sacramento Army Depot. If the depot has your scope or whatever in float, and if the one you sent is repairable, a replacement is on the way the day depot gets it. Turnaround time for other than night vision items is indicated in the SIL's, published quarterly.

But . . . a lot depends on you there at unit level, and on your support outfits. Here're some ways you can help:

HIT YOUR SUPPORT—Never bypass your support by sending your equipment directly to a CONUS depot. One good reason (among many) is that your direct support might have float items on hand. In which case you get a replacement while yours is being repaired. Another, your DS or GS may be able to repair it in-country. Or salvage it (more on that shortly). The point: you can save time, or get a quick replacement.



And paint this in red somewhere: if you pass up your support, you won't get the item back!



NEVER HOLD ITEMS—Neither you, your unit nor your support should hold items that have to go to a CONUS depot. You defeat the reason for the repair and return program, which is fast repair of critical equipment. That means get it off right now, as soon as it's non-operational, otherwise damaged or in need of repair.

SHIP SEPARATELY — That way, too, you avoid the temptation to ship items in the same package, thereby setting up the big bust-up. You wouldn't believe it, but some jokers put together packages that are similar to shipping your watch or camera in the same box with angle irons. No wonder it arrives in un-repairable condition!



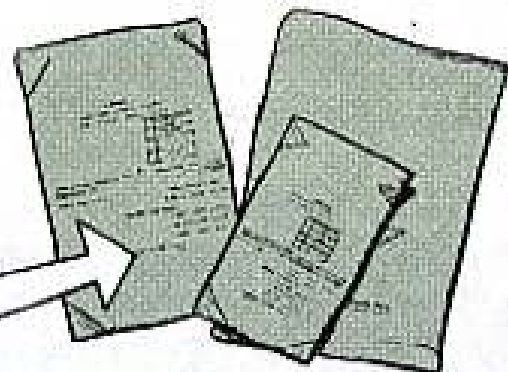
I'M SAVING PAPER.



So, The Big Point. Package each item separately. If it's a module, put it in a small pre-addressed "Jiffy bag." If it's an end item, send it by itself. Don't pack modules around it. If you've got 20 portable radio sets, send 'em in 20 separate packages. And send each package off as soon as it's determined CONUS depot repair is necessary.

"USE JIFFY BAGS" — Pre-addressed "Jiffy bags" ranging from 6 by 10 inches to 14-1/2 by 20 inches can be had from your direct support.

COMMANDING OFFICER
SACRAMENTO ARMY DEPOT
SACRAMENTO, CALIFORNIA 95813



The Repair and Return Program was originally set up in SB 11-617 (Dec 68).

At this time, the program is for SEA and Korea only . . . so, everybody else, hold up or you will lose the item.

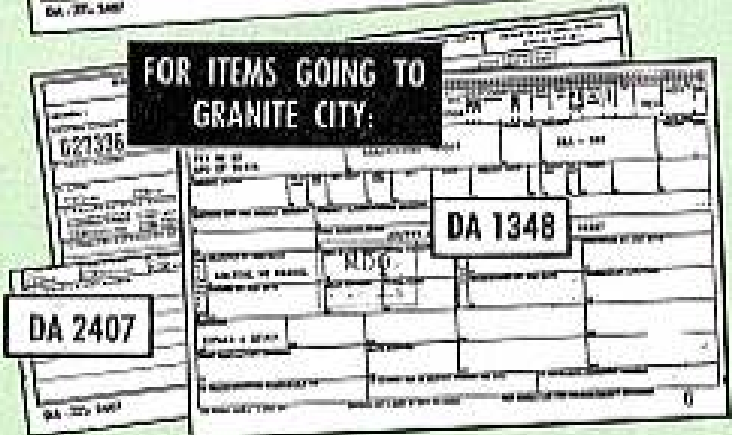
The units listed in USAECOM SIL 9-69 (USARV) and 13-69 (Korea) are the **ONLY** ones which can ship R&R items to CONUS.

If your unit's not on the SIL list, the item you send will be put in CONUS stock, and you'll be told to requisition a replacement through normal channels. Which doesn't save you one minute. . . .

THIS DEAL IS FOR **SEA AND KOREA ONLY!**



DON'T FORGET YOUR FORM(S) . . . Back to separate items: each piece of equipment, whether it be module, radar set or night vision equipment, gets a separate DA Form 2407. The only exceptions are certain night vision items that go to Granite City. When a piece of equipment is earmarked for Sacramento, Lexington or Tobyhanna Army Depots, you need to send along **ONLY** a DA Form 2407. Equipment going to the Granite City Army Depot needs a DA Form 2407 **AND** a DA Form 1348.



SOME GOOD STUFF ON EXPEDITING THE 2407: NOTE IN BLOCK 16, IN BIG, BOLD LETTERS, THAT IT'S A REPAIR AND RETURN ITEM.

| | | | | | | | | | | | | | |
|--|--|--|--|---|--|---------------------------------|--|-------------------------------------|--|--|--|--|--|
| 7. STATE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | 8. UTILIZATION CODE* <input type="checkbox"/> | | 9. SELECTED ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | 10. HOURS | | 11. MILES | | 12. ROUNDS | | 13. STARTS | |
| 14. FAILURE DETECTED DURING (CHECK ONE - check all if 2) | | | | | | | | | | | | | |
| <input type="checkbox"/> SCHEDULED | | <input type="checkbox"/> TEST | | <input type="checkbox"/> STORAGE | | <input type="checkbox"/> FLIGHT | | <input type="checkbox"/> IMPERATIVE | | <input type="checkbox"/> OVERHEATING | | <input type="checkbox"/> OUT OF ADJUSTMENT | |
| <input type="checkbox"/> HANDLING | | <input type="checkbox"/> NORMAL OPERATION | | <input type="checkbox"/> INSPECTION | | <input type="checkbox"/> OTHER | | <input type="checkbox"/> NOISY | | <input type="checkbox"/> LOW PERFORMANCE | | <input type="checkbox"/> OTHER | |
| 15. FIRST INDICATION OF TROUBLE (HOW MANY TIMES?) | | | | | | | | | | | | | |
| 16. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURES IN EQUIPMENT IN ADDITIONAL REPAIRS | | | | | | | | | | | | | |

Identify the item properly, because wrong FSN's delay processing. If it's a part, give the part's FSN. If the item is a component of a set, give the component FSN . . . and not the FSN for the end item. If you don't know the number, find out.

MARK IT—To avoid delay at the depot, mark the outside of the package with "Repair & Return." "Jiffy bags" have a Repair and Return block on the front. Be sure to mark it.

Night vision equipment gets special attention when the package is marked with the code "ZLM" for SAAD and "NDQ" for Granite City. That emphasizes the point on shipping night vision items separately.



Depot people look for the exterior markings in order to expedite repair. If the package is unmarked, processing will be delayed until the package is opened and your repair and return notation is spotted on the 2407. Naturally, you put the 2407 in the package with the item.

The repair and return guys at the depot give your item a control number that stays with it until it gets back to you. At any given time, they know where it is and what's being done to it. The number is marked on your 2407, and the owner, as per the address on the 2407, is immediately notified when the item reaches the CONUS depot.

BE SURE TO LIST YOUR SUPPLEMENTAL ADDRESS IN Blocks 1a AND 1b.

TRACE THRU SUPPORT—If you don't get a notice from the depot, it means the depot hasn't received your item and that your support may still have it. In which case (no notice received) it won't do any good to query the depot. Start a tracer through your support.

If you do get the notice, and more than the turnaround time listed in the SIL rolls by, query the depot and cite the control number they sent you.

Items eligible for repair and return are spelled out in Supply Information Letters from the USAECOM NICP at Philadelphia, Pa.

To expedite repair, Support ships by air mail parcel post. They may be sent by either registered or certified mail. Large items can be sent air freight, in any package that'll get through the post office.

Which means repair and return is geared to premium transportation . . . which shouldn't, for instance, be used for obviously salvageable items.

Which means, be sure you've got your complete address on the 2407, including your APO. You've also gotta list your supplemental address, or AT number, in blocks 1a and 1b of the form . . . because if the package comes back to you by military air freight it goes to your AT number.



DEPARTMENT OF THE ARMY
 UNITED STATES ARMY ELECTRONICS COMMAND
 PHILADELPHIA OFFICE
 281 NORTH BROAD STREET (3RD FL)
 PHILADELPHIA, PENNSYLVANIA 19104

ATTENTION: HQ-16

28 August 1968

SUPPLY INFORMATION LETTER NO 9-68
 (Supersedes SIL 9-68 dated 6 May 1968)

SUBJECT: SEA Repair and Return Authorizations Item List of Electronic Equipment

TO: See Distribution

NO SALVAGE STUFF—Equipment that's badly shot up, severely shrapnel damaged . . . or otherwise obviously not repairable . . . should be salvaged in-country. CONUS depots aren't about to ship you a replacement for a salvage item.

Depots will salvage it for you, but all you'll get is a notice . . . and you've got to requisition the replacement.

So-o-o-o, salvage it where you are. You'll save time and money and get

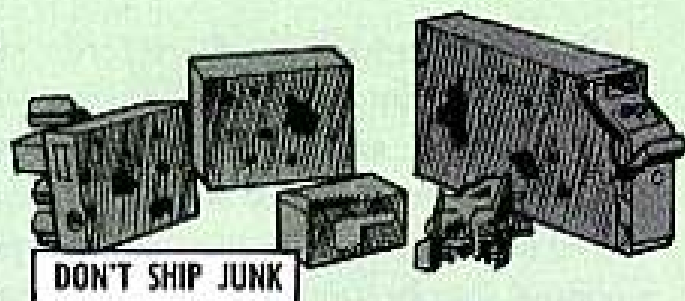
Be careful with those modules. If you can't keep 'em separated in jiffy bags, separate 'em with cardboard in the shipping cartons. Handle 'em gently. Take the best of care. Don't "X" or otherwise mar modules or cases—It makes it a salvage item, even tho the item is repairable.

A final reminder: Never cannibalize an item down to the frame and ship the frame off for repair and return. All you do is set up the frame and its few parts for depot salvage.

In which case you haven't gained anything with the big strip.



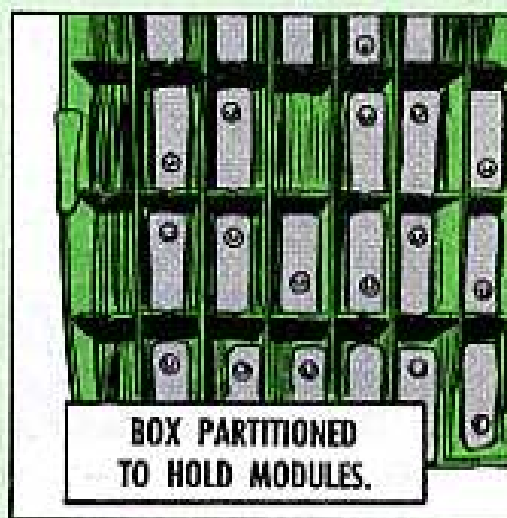
KEEP THAT STUFF SEPARATED—DON'T JUST THROW IT IN A BOX!



DON'T SHIP JUNK

your replacement sooner.

Like the man said, let your support determine whether you've got a repairable item . . . instead of hopefully firing it off to the depot when you know it'll have to be salvaged.



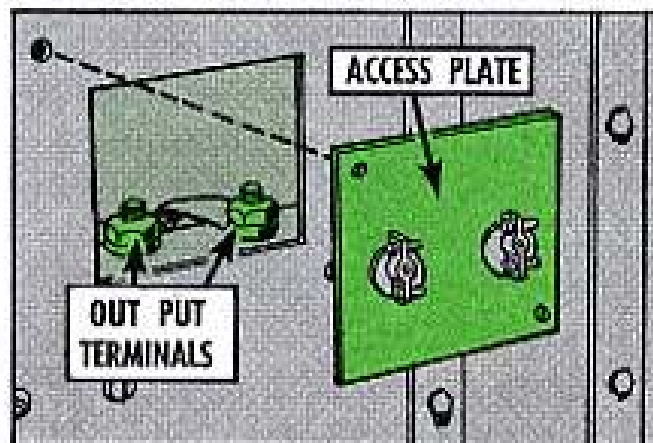
BOX PARTITIONED TO HOLD MODULES.

... AND THE PLATE GOES ON

The access plate on the back of your PP-4763/GRC or PP-4763A/GRC power supply wasn't put there just for laughs.

It's there to keep the output cables from working loose on the output terminal . . . thereby burning out the mounting board and the cables themselves.

So, naturally, you wouldn't think of leaving the access plate off after adjusting the output voltage.



Now, if you've got a buddy who hasn't learned, you could slip him the word.

GROUNDING CHECK

HERE'S THE GUY WHO CAN TELL WHETHER YOU'RE GROUNDED WELL OR NOT.



Dear Half-Mast,

As a commo officer I see a lot of damage to equipment because of poor grounding. Can you give me an easy method of testing grounds to tell if they are good?

CW2 R. C. L.

Dear Mr. R. C. L.

Best method I know is a voltage reading, taken with an AN/URM-105 multimeter or such. If a multimeter's used, be sure it's set for measuring voltage and that the black or negative lead (on the left of set) goes to the ground wire.

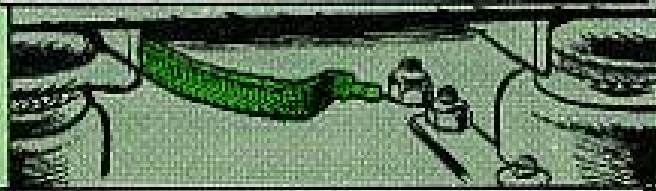
With power on, one test meter lead should be placed on bare metal of the equipment chassis and the other lead should be on the ground (negative) wire or cable . . . but not on the ground connection.

Any reading from 0 to 5 volts shows you've got an adequate ground. Of course, the closer to 0, the better the ground.

Anything over 5 volts can mean you're not properly grounded or your equipment needs a check out.

Before calling in support, try this:

1 — Be sure all ground connections are clean and tight.

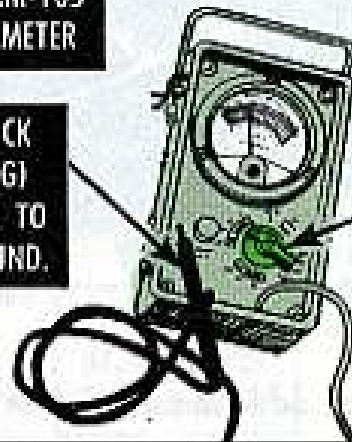


2 — Check ground wires and cables for frays or breaks. Get 'em replaced, if need be.

AN/URM-105 MULTIMETER

BLACK (NEG) LEAD TO GROUND.

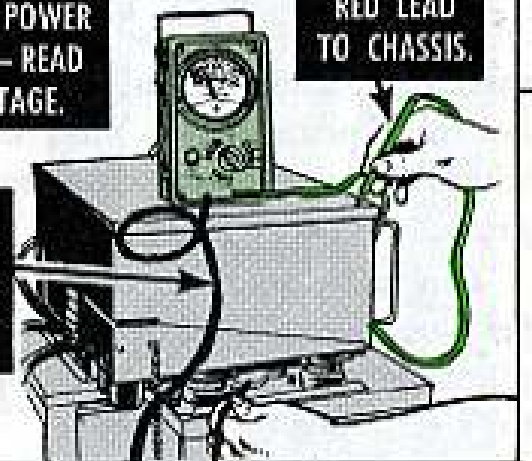
SET FOR VOLTAGE.



WITH POWER ON — READ VOLTAGE.

RED LEAD TO CHASSIS.

BLACK LEAD TO GROUND CABLE.



3 — If your equipment has a ground rod, be sure it's the right length . . . and is driven into the ground as far as you can get it.

4 — If the ground's dry, wet it down. But, don't use flammables. Now, if you still get over 5 volts, call support.

KIOWA (OH-58A) MAKES THE SCENE...

A MECHANIC



The latest addition to the inventory was designed with you in mind.

The ease of maintaining this baby is something else again.

Push-pull rods replace control cables and pulleys—6 self-lubricated tail-rotor drive-shaft bearings replace bearings with grease fittings—fixed length tail-rotor pitch-change links instead of mechanical adjustment types—fewer scheduled inspections—and more . . . all designed to save you time and elbow grease.

This baby requires no lubrication on the Preventive Maintenance Daily. Service the engine oil tank, transmission, tail rotor gear box, hydraulic reservoir, pillow block reservoirs, fuel cell sump drain valve. Fill 'er up with JP-4 and she's ready for the wild blue.

As your Kiowa builds up flying time use your TM 55-1520-228-20 and keep these maintenance pointers in mind.

KIOWA (MEDIUM) FREQ?

Tracking down a medium frequency airframe vibration, felt in the tail rotor pedals, can drive you to distraction.

You might save yourself some time by focusing in on the 4 tail boom attaching bolts, first off.



'S DREAM



If the bolts have loosened up, you've found the source of the problem.

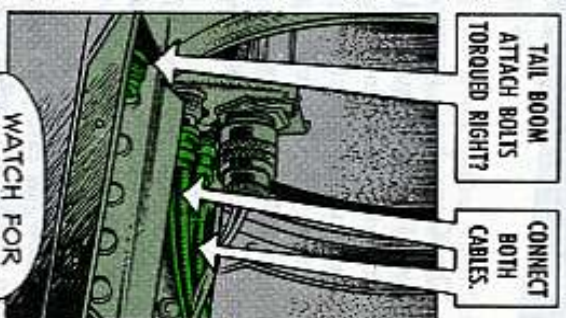
Take off the inspection plate on the right side of the fuselage at the attaching point.

Disconnect the VHF/UHF antenna and navigation light cables to make room for a torque wrench.

Back off on the bolts and re-torque 'em to 375-415 lb-in. Remember that the special inspection of TM 55-1520-228-20 (Jul 69) calls for re-torquing the bolts 100 hours after a tail boom is installed.

To keep your favorite throttle jockey in the communication business, be sure you hook up the cables again. Chances are, if the navigation light works, you connected that cable and the 2 antenna cables.

Be sure you don't Murphy the antenna cables, either. They look the same but if they're switched you'll burn out some transistors in the little black boxes because each radio is set on a different frequency.



TAIL BOOM ATTACH BOLTS TORQUED RIGHT?

CONNECT BOTH CABLES.

WATCH FOR THE OLD CABLE SWITCH BIT, FRED.



Match up the identification numbers at the cable connection. **You could even color code one of the cables to prevent a mix up.**

Keep in mind that the navigation light won't get juice to operate in the first place unless the non-essential buss selector switch is in the "MAN" position, when operating on battery only.



FUEL TIPS

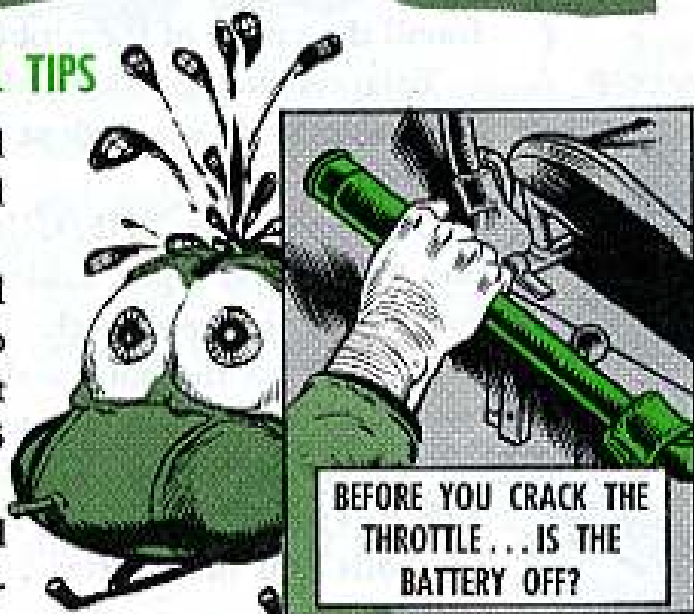
The Kiowa has a pressure fed fuel system. Pressure is supplied by a fuel boost pump located in the fuel tank.

Anytime the throttle is cracked and the battery is ON, fuel is going into the engine—the pilot can get a hot start . . . not exactly healthy for a T63 gas turbine!!

So, any time you're working around the throttle, like on a linkage adjustment, make sure the battery is OFF.

Another way to stop an accidental fuel flow, in case your buddy should turn the battery switch ON, is to pull the boost pump circuit breaker.

'Course, when the pilot wants fuel, he won't settle for a partial flow. Which is just what he'll get if the manual fuel shut-off valve is not in the full ON position.



ANOTHER WAY TO PREVENT AN ACCIDENT . . .





WATCH THAT MANUAL FUEL SHUT-OFF VALVE. KEEP IT OPEN AND FORWARD.

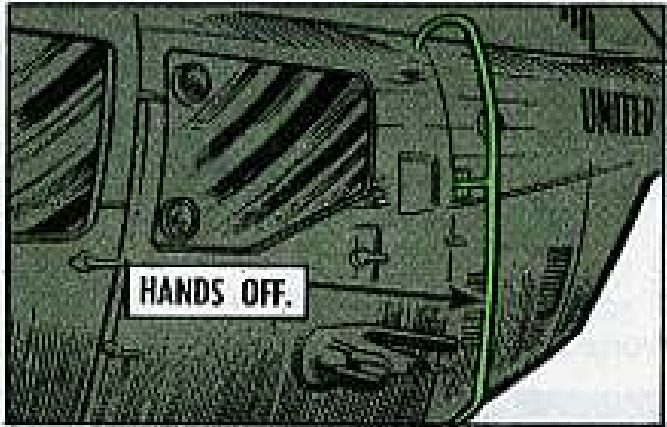
Sure, with the selector valve partially off, he'll be able to bring the chopper to a hover. But when he pours the coal to 'er, she'll flame out for lack of fuel (ugh!).

For this reason, it's a capital idea to focus on the shut-off valve. It should be in the open (forward) position.

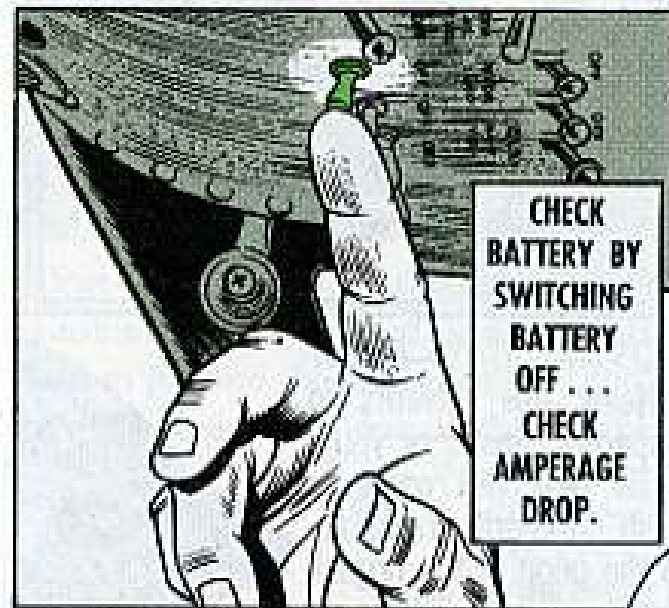
HANDS OFF ANTENNA

The homing antenna on each side of the fuselage is a mighty tempting hand-rail for mounting your bird.

Never use the antenna to get to the rotor head or you'll break it and put the radio set out of business.



KIOWA SIMPLE BATTERY CHECK



CHECK BATTERY BY SWITCHING BATTERY OFF... CHECK AMPERAGE DROP.

To find out if the nickel cadmium battery is up to par without sending it to the battery shop, here's a check the pilot can make.

With the bird cranked up, move the battery switch to OFF.

If you get a drop of less than 5 amps, the battery is fully charged.

THANKS FOR THE TIP ON THE BATTERY CHECK, CONNIE.


OK... BUT REMEMBER THIS IS NO SUBSTITUTE FOR THE PM CHECKS AND SERVICES CALLED FOR IN CHAP. 4, TM 11-6140-203-15-2 (1 DEC 69).



EYE YOUR BIRD




There is no Intermediate inspection, and the Periodic is 300 hours. So, give your slim-jim a good going over on the Daily.



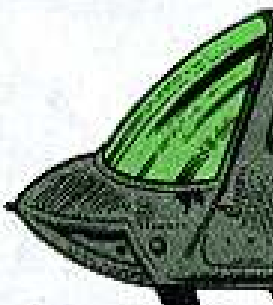
NOSE SECTION

PITOT TUBE — Dirty, plugged?

LOG BOOK — Look for recorded discrepancies.

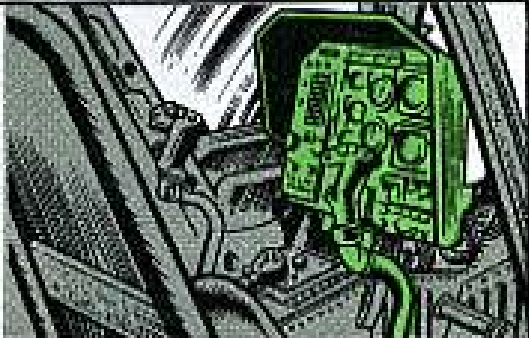


WINDSHIELDS, WINDOWS — Clean? Cracked? Never use solvents to clean transparent plastic or you'll scratch it for real. Use water or plastic polish. Stop-drill cracks according to the poop in the organizational maintenance pub.



NOSE EXTERIOR — Loose rivets? Cracks in skin?

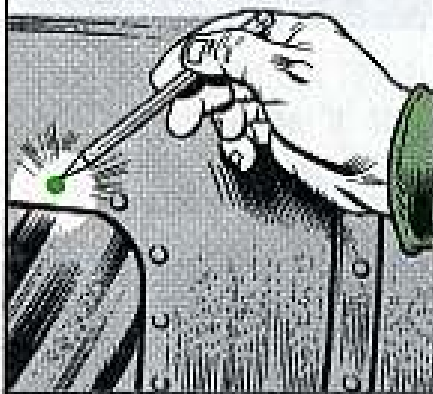
NOSE INTERIOR — Eye the area for rags, clothing, tools and other foreign objects. Stow 'em in the right place. Look for damaged equipment, loose connections.



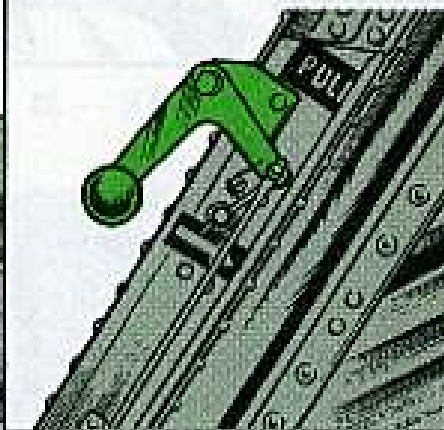


CABIN, LANDING GEAR

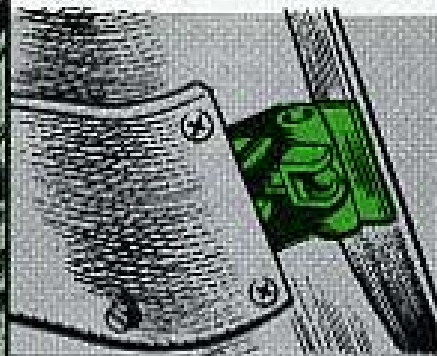
CABIN — Go over the area, looking for loose or missing rivets, cracks in the skin and other damage.



DOORS — Eye the jettison handles for cracks and the pins for bends and corrosion.



CREW, CABIN DOORS — Positive latching? Broken or loose handles? Loose mountings? Windows clean?



Put your fingers on the door handle safety wire to make sure it's tight. The handles can get bumped, stretching the wire. It only takes a little handle movement to jettison the doors and you don't want that to happen in flight. It's mighty embarrassing to see one of those babies sail into the rotor blades!

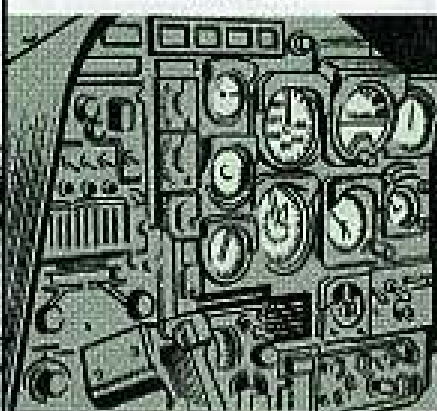
SEATS — Damaged? Tight? Webbing adjusted?



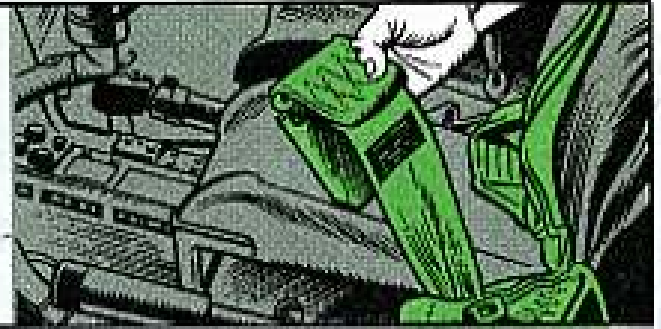
CYCLIC, COLLECTIVE CONTROLS — Plant your mitts on the cyclic and collective. Move the controls to check for freedom of operation.



INSTRUMENTS — Glass cracked, slippage, clean?



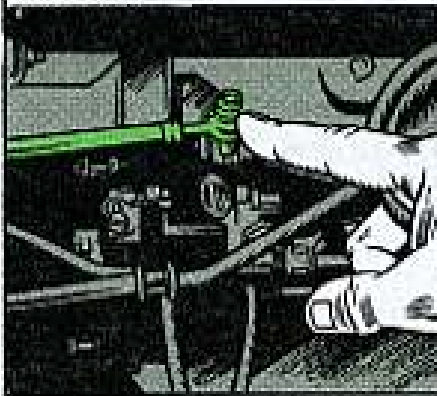
SAFETY BELT, SHOULDER HARNESS — Look for cuts, fraying of material, corrosion of hardware, security. Yank on the harness for a positive locking and unlocking check. Eye the reel for damage.



Crew chiefs — now hear this! When passengers depart from a door-off ship be sure to remind them to secure the seat belts. Otherwise the belts hang loose and the buckles pound the fuselage to a pulp. Leads to extra sheet metal work.



THROTTLE, POWER CONTROLS — Chafing? Binding? Secure?



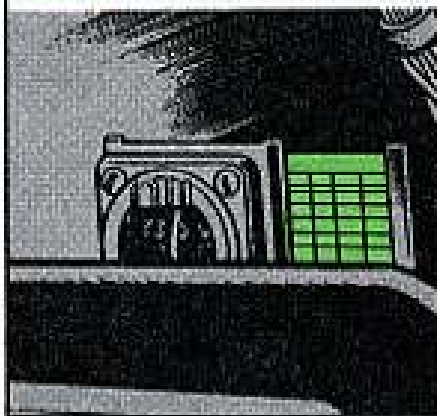
FIRE EXTINGUISHER — In place? Secured?



FIRST AID KITS — All present 'n' accounted for? Secure? Seals broken? Inspection tag missing?



COMPASS CORRECTION CARD — Up to date?



CABIN INTERIOR — Clean? Equipment stowed?



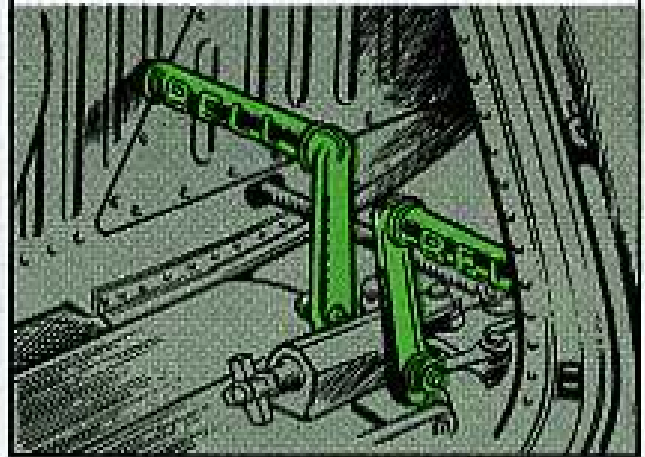
FUEL — Use a jar to drain a fuel sample. Eye the sample for water and contamination.



LANDING GEAR— Run your peepers over the skid tubes, cross tubes and shoes looking for excessive wear and broken hardware. Focus on the attachment points for any indication of a hard landing and security of attachment.



TAIL ROTOR PEDALS— Check for freedom of operation.

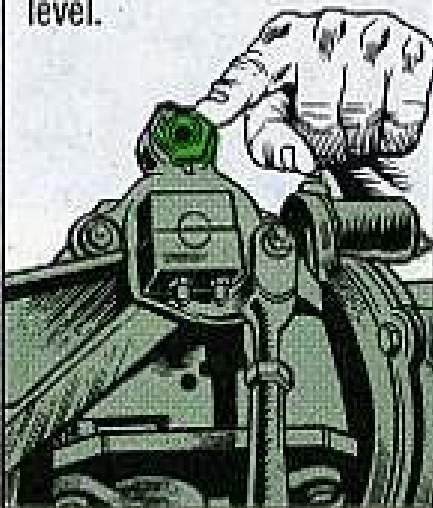


TRANSMISSION, PYLON

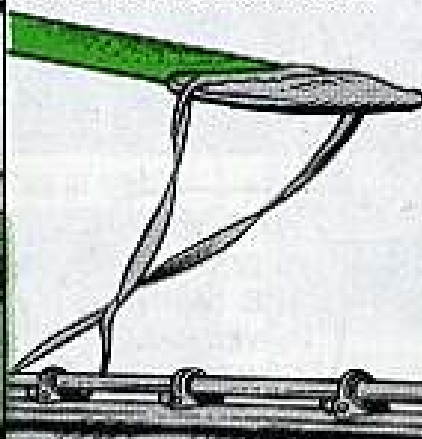
HEADS UP, TO PREVENT POSSIBLE EYE DAMAGE, GIVE THE FM ANTENNA A WIDE BERTH.



MAIN ROTOR HUB— Run your peepers over the hub looking for nicks, scratches, gouges. Eye the reservoirs for an acceptable oil level.



MAIN ROTOR BLADES— Look for scratches, dents, nicks, erosion of the leading edge and evidence of bond failures. If the blades are damaged, call in your DS unit for a closer look.



MAST BOOT— Any cuts, tears, or deterioration?

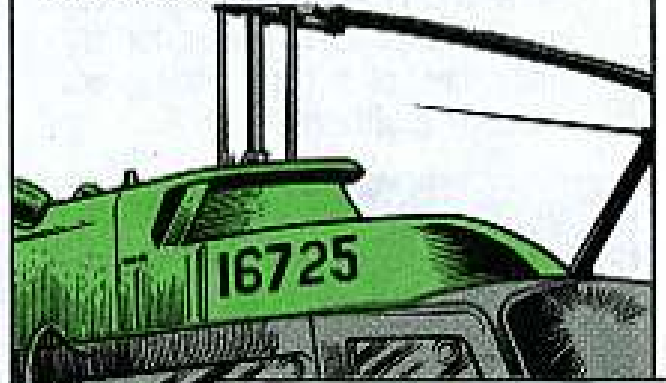


SWASHPLATE, LEVER, SLEEVE, CONNECTING LINKAGE— Secure? Damaged?

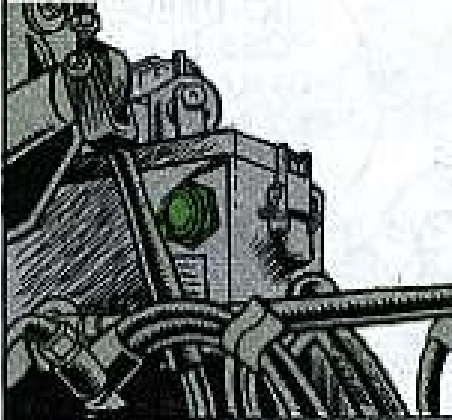
MAST — Eye the mast for damage.



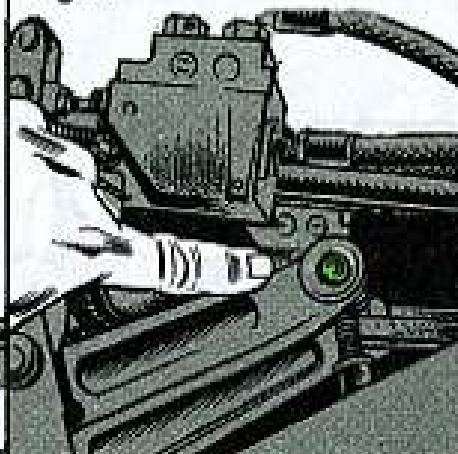
TRANSMISSION FAIRING — Look for cracks, tears. Eye the fasteners for serviceability, because they really take it on the chin.



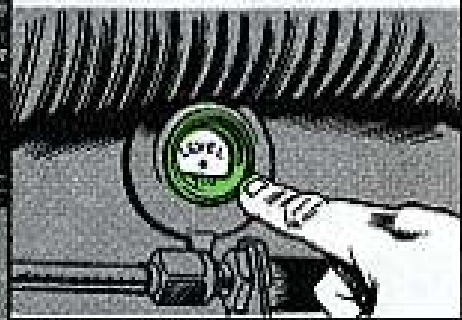
HYDRAULIC SYSTEM — Components tight? Lines secure? Hydraulic oil reservoir oil level OK?



COLLECTIVE, CYCLIC CONTROLS — Attachment bolts tight?



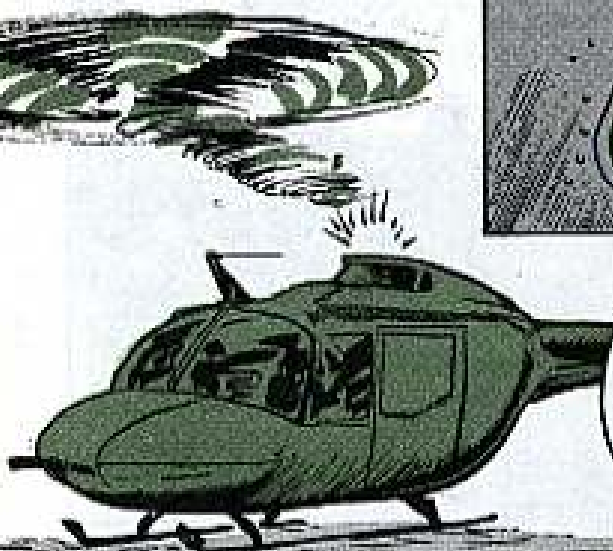
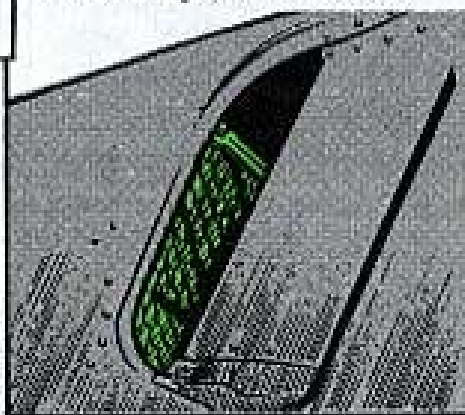
TRANSMISSION — Eye the transmission sight gage for an acceptable oil level. Plant your mitts on the transmission connections to check for security.



MAIN DRIVE SHAFT COUPLINGS — Damaged? Grease leaking?

ENGINE AIR INLET — Look for damage, obstructions.

HYDRAULIC FILTER ELEMENT INDICATOR — Clogged filter?



DID YOU CHECK OUT THE MAIN DRIVESHAFT COUPLING?

I THOUGHT YOU WERE GONNA DO THAT!

ENGINE

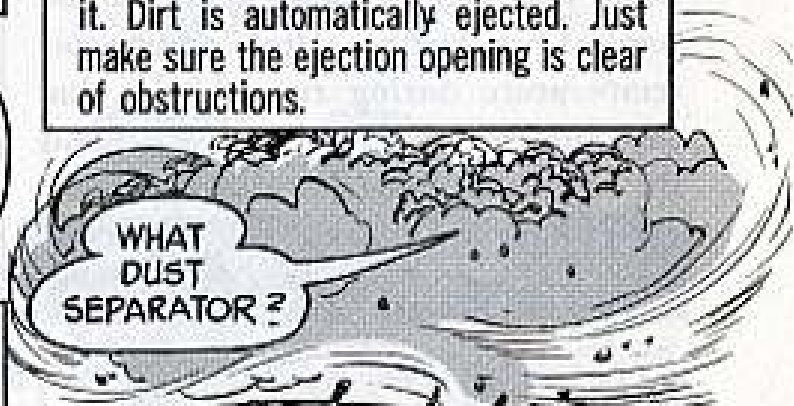


COWLING, FORWARD AND AFT FAIRING
— Cracks? Dents? Fasteners in place?



HOW'S THIS FOR A SUBSTITUTE FAIRING FASTENER?

SAND, DUST SEPARATOR — Damaged? No need to take out this baby to clean it. Dirt is automatically ejected. Just make sure the ejection opening is clear of obstructions.



WHAT DUST SEPARATOR?

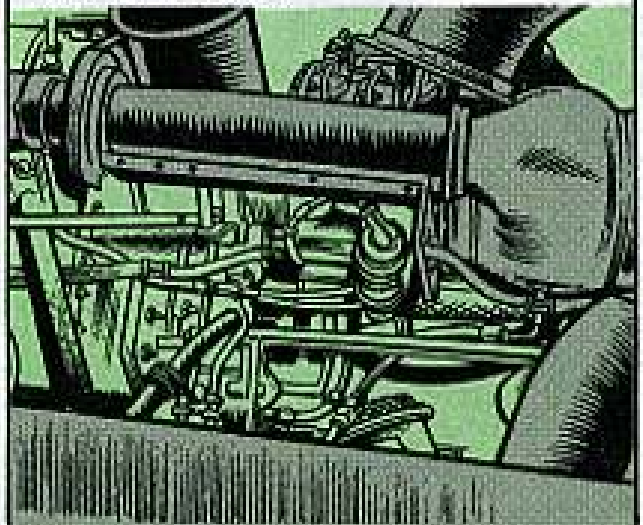
ENGINE ACCESSORIES, CONNECTIONS
— Eye the power and accessory gear-box, especially in the stress areas, such as mounting flanges and accessory pads. No cracks are allowed. If any accessory is leaking oil, the seal has to be changed.



ENGINE MOUNTS — Inspect the mounts for security and look for cracks in welds.



ENGINE COMBUSTION CHAMBER — Eye the housing, turbine support, exhaust collector and tailpipes for cracks, dents, burns or buckles.



ELECTRICAL CABLE — Eye the cable, exciter, leads and ignition plug for damage and security.

FUEL NOZZLE, LINES —
Tight? No leaks?



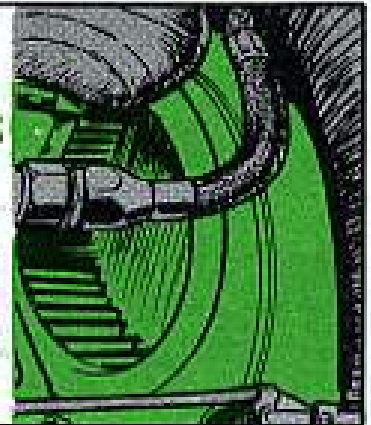
OIL TANK — Tight? Lines
leaking? Oil at an accept-
able level?



During an engine change tag the oil supply and return lines at the aft bulkhead. The lines are identical and can be hooked up wrong. High engine oil temperature during run-up will clue the pilot that the lines are crossed and the engine has to be shut-down, pronto.

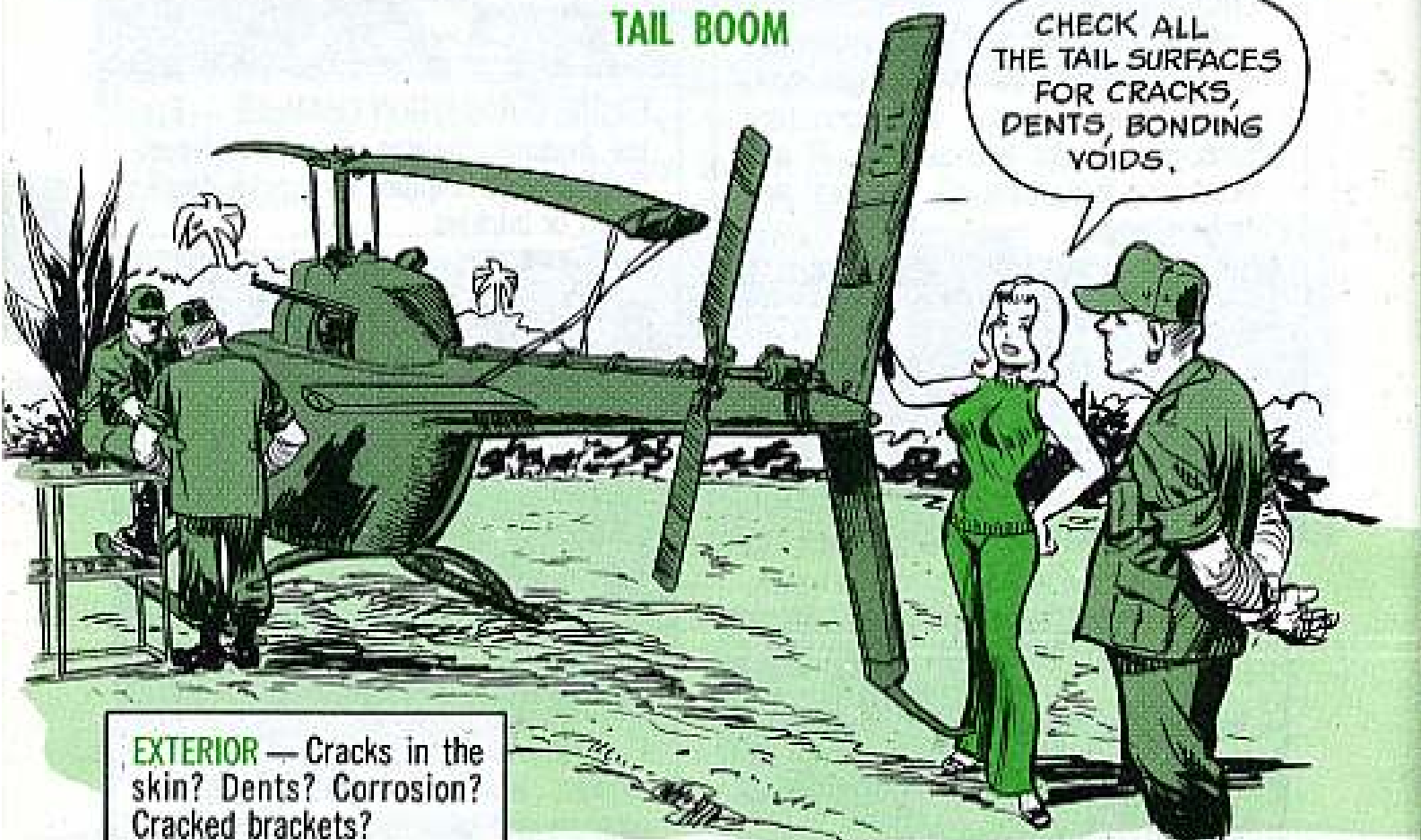
To prevent a Murphy, color code the inlet and outlet lines.

**OIL COOLER
BLOWER, DRIVE
SHAFT BEARINGS**
—Check for
cracks, security,
evidence of over-
heating and
excessive grease
leakage.



TAIL BOOM

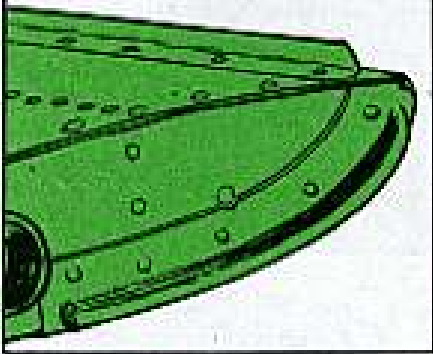
CHECK ALL
THE TAIL SURFACES
FOR CRACKS,
DENTS, BONDING
VOIDS.



EXTERIOR — Cracks in the
skin? Dents? Corrosion?
Cracked brackets?

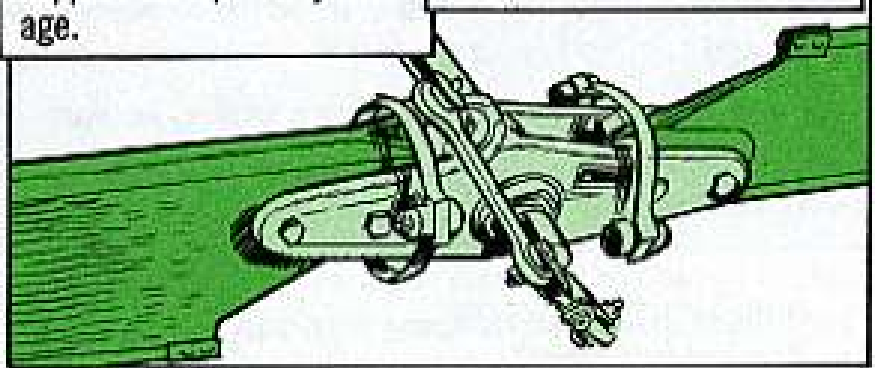
HORIZONTAL STABILIZER

— Loose rivets? Cracks, dents in the skin?



TAIL ROTOR BLADES

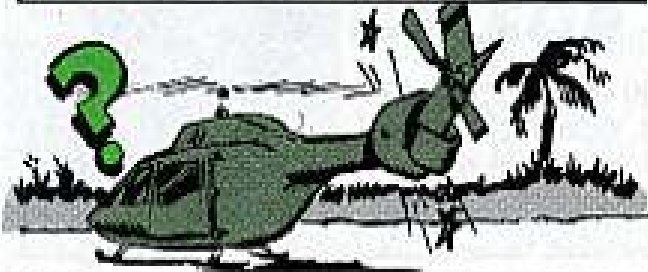
— Nicks, scratches, dents, bonding voids? Call on your support to repair any damage.



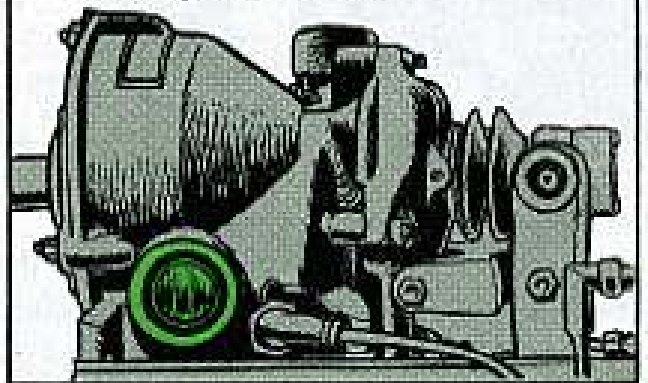
TAIL ROTOR HUB

— Eye the hub for scratches, nicks, dents, burrs, cracks and corrosion.

TAIL ROTOR CONTROLS — Attachment bolts tight? Controls damaged?



TAIL ROTOR GEAR BOX — Look for leaking seals, cracks and security of attachment. The sight glass should show oil level, and the vent in the cap should be free of any obstruction.

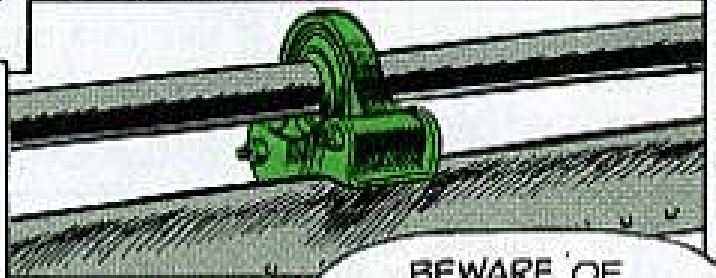


TAIL FIN, SKID, ANTENNA LEADS — Secure? Damaged?

TAIL ROTOR DRIVE SHAFT — Shaft secure in mounts?

TAIL ROTOR DRIVE SHAFT BEARINGS

— Look for evidence of overheating, excessive grease leakage; bonded fittings for security; splined adapters for freedom of movement.



BEWARE OF MIDNIGHT REQUISITION, EDGEWORTH!



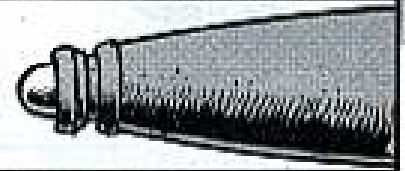
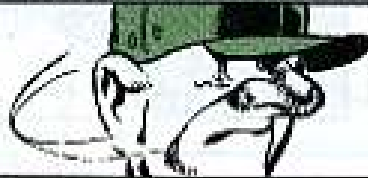
Filler cap damaged? None in supply? The one on the Huey 90-degree gear box bears the same part number, as a substitute.

NO WIPING, PLEASE!

Never wipe grease seepage off a drive shaft bearing. Leave it be—it should seal the remainder of the grease in that pre-packed baby. If a bearing continues to seep grease, the accumulation will give you an indication of whether you have to change it.

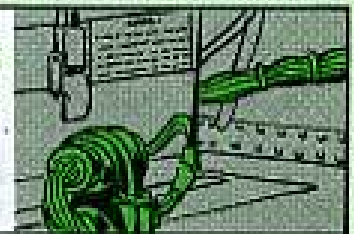
If you have to replace a faulty bearing, be sure you use Vaseline to properly align the inner race of the bearing with the shaft. TM 55-1520-228-20, Chg 1, tells you how it's done.

TAIL LIGHT EXTENSION —
Cracked lens cover?



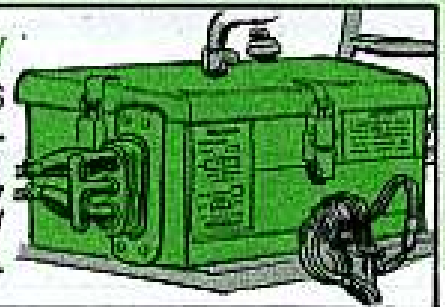
AVIONICS CHECKS

ELECTRICAL CONNECTIONS
— Radio cannon plugs, connectors, receptacles loose?
Wires frayed, broken?

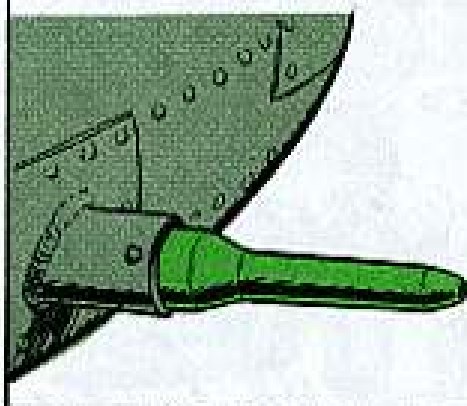


EXTERNAL POWER RECEPTACLE — Access door secure?

NICKEL CADMIUM BATTERY
— Eye the battery. If it's wet, which indicates leakage or electrolyte spewage, turn it in to the battery shop for a closer look-see.

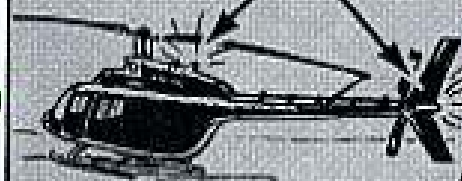


PITOT HEATER — Working?



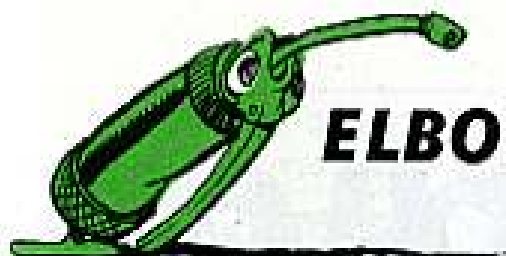
INTERIOR, EXTERIOR LIGHT
— Working?

EXTERIOR LIGHTS



CAUTION PANEL LIGHTS — Illuminate on test switch position?





ELBOW GREASE ONLY



There's no need for you Huey (UH-1) mechs to strain your eyeballs looking for places to lube the bird during the preventive maintenance daily . . . the lube chart doesn't list any. Just service 'er with fuel, oil and the like.

NUTS TO STUDS

If you Raven (OH-23F, G) types get the green light from DS to change a loose cylinder intake pipe stud, hold one!! Take out both studs and use bolt, FSN 5306-639-4446, listed in Fig 57 of TM 55-1520-206-20P (25 Jul 68) to hold the intake pipe. New and newly-overhauled 0-540-9A engines now use bolts instead of studs.

OK FOR CAYUSE

Engine oil, MIL-L-23699, has been approved for use in the OH-6A. When the engine has a total time of less than 100 hours just drain out the old MIL-L-7808 and add the new. If the engine has over 100 hours eye the oil filter for contamination twice, after the change — at 5 hours and 15 hours. The word's in Ch 1 (19 Dec 69) to TM 55-1520-214-20.



GET NEW FAIRING



It's bad luck if the rear view mirror on your Ute (U-21A) is broken. More than likely the shield is cracked at the attachment holes. Welding may not stop the cracking. So, ask for the mirror assembly listed on page 145 of TM 55-1510-209-20P (Jan 70).



WITH DUE-IN CHECK-UPS...

YOU CAN CLEAR THE DECKS

IF YOU'RE HIP TO DUE-INS SOP CH'S IN AR 735-35, PARA 4-8e, YOUR SUSPENSE FILES SHOULD BE CLEAR OF DEAD WOOD.

LET ME HELP YOU CHECK YOUR DUE-INS

Quarterly, or so, your DS supply sends you a reconciliation request (cards and/or a listing), covering all the due-outs they've owed you for 30 days or longer.



You compare support's request with your suspense files.



LET'S SEE HOW THE DUE-OUTS REPORT STACKS UP AGAINST YOUR FILE.

Then you tell support what due-outs are still needed and which ones you want to cancel.



THIS ONE WE NO LONGER NEED...

...BUT WE STILL NEED THESE.

OWW!
CHECKING ON DUE-INS REGULARLY IS CALLED "RECONCILIATION VALIDATION REPORTING".

But, before you OK the reconciliation request, of course, you have to validate your due-ins.



That means you have to make sure the items are still needed. You do that by checking with the guy you ordered the item for.



In other words, you don't just let a due-in ride because there's a due-in card in your suspense file and the due-out is listed on support's request. Could be the item's no longer needed, so you can cancel it right then and there . . . or however support's SOP says you can.

MATCHING-UP

You also tell support to cancel any due-out which is on their reconciliation request but no longer in your suspense files.



When it's the other way around—a needed due-in in your files isn't on support's request — you ask 'em to up-date their records. You can do that by sending support a follow-up request — or whatever request support needs for up-dating their due-out records.



THE PERSONAL TOUCH

It may work best for you to visit your DS supply for an eye-ball to eye-ball review of your due-in records.



Whichever way it's done . . . a good reconciliation/validation set-to can clean out all kinds of deadwood and clear up all kinds of due-out delays and problems. A clean sweep will help purify the due-out pipe-line all the way to the other end of the supply line. And, that can add up to better, faster supply for everybody . . . when and where it's needed.

RECORDS ACTIONS FOR ...

SPECIAL CONDITIONS

Dear Half-Mast,
Answers are needed on these six questions on maintenance forms and equipment log records —

1. Where do I find rules on use of DA Form 2402 as an identification tag in cases where it's NOT REQUIRED by TM 38-750?
2. When must a tech inspector sign to indicate approval of corrective action on an aircraft fault listed on DA 2404?
3. What entry is required if an MWO listed on DA 2408-5 is later found to be NOT APPLICABLE to the equipment?
4. Where do you get a number to enter in serial number blocks of forms if the equipment has no serial number AND DA 2408-8 HAS NO CONTROL NUMBER?
5. Is a flight number entry required on DA 2408-13 for an aircraft TEST flight?
6. Do general rules on replacing lost or mutilated forms apply to DA 2408-16?

Q Where do I find rules on use of DA Form 2402 as an identification tag in cases where it's NOT REQUIRED by TM 38-750?

A Para 3-2 of TM 38-750 spells out required uses of DA Form 2402 and

DEAR LIEUTENANT LDS... THAT'S A FINE BATCH OF QUESTIONS... BUT MOST OF THE SITUATIONS YOU MENTIONED REQUIRE SPECIAL HANDLING!

usage, responsibility and form preparation for the form's "extra duty."

I'VE DONE EVERYTHING BUT PULL LATRINE DUTY.

DA FORM 2402

Q When must a tech inspector sign to indicate approval of corrective action on an aircraft fault listed on DA 2404?

A The latest edition of the TM—para 3-4c(2)(1)(a) (4)—calls for a corrective action inspection and signature on DA 2404 by the inspector or supervisor for aircraft faults with a circled red X or red X status symbol. Verification of corrective action on less serious faults is made by the person who completed the action as shown in Fig 3-4 in the TM.

Q What entry is required if an MWO listed on DA 2408-5 is later found to be NOT APPLICABLE to the equipment?

A Since an MWO requirement is supposed to be listed on DA 2408-5 only after the publication is received, an MWO that's not applicable shouldn't be listed on the form. So TM 38-750 has no rule for this situation. If it happens, draw a line through the entry, write "MWO NOT APPLICABLE" in columns f-g-h, and sign in column i to show who made the correction. (Follow the same rule for MWO's on DA 2409.)

HOLD IT! NO ENTRY'S NEEDED ON THAT DA 2408-5. THE FINE PRINT SAYS IT'S NOT APPLICABLE FOR THIS BIRD.

Q Where do you get a number to enter in serial number blocks of forms if the equipment has no serial number AND DA 2408-8 HAS NO CONTROL NUMBER?

A When you submit a "Corrected Copy" of DA 2408-8, as required by para 1-7e of TM 38-750, you normally line through the control number of the new form and insert the control number from the old form. A few old forms didn't have a control number, and these don't need one in most cases since none

rules for entries in these required uses

(DX, or EIR and warranty claim ex-

hibits). It's OK for a command to set

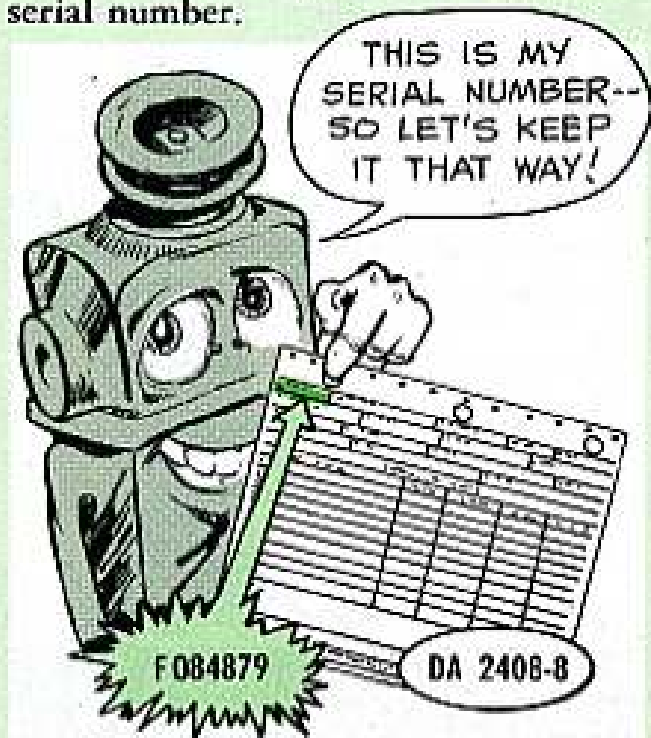
up other uses for the form (see paras

1-7c and 3-2b). But if it does, the com-

mand should set up procedures on

was required when they were made. But the case you mentioned is an exception. If the equipment has no serial number and there's no control number on its DA 2408-8, then a new DA 2408-8 (with a preprinted control number) should be prepared and submitted.

This preprinted control number becomes the equipment serial number. It's entered in block 4 of DA 2408-8 and in serial number blocks of other forms used for the equipment. Even if a new or corrected copy of the DA 2408-8 is prepared later for the equipment, the control number from its first numbered DA 2408-8 is kept as the equipment serial number.



Q Is a flight number entry required on DA 2408-13 for an aircraft TEST flight?

A Flight numbers are not assigned or recorded on DA 2408-13 for test flights. Numbered flights called for in para 4-12c(2)(t) I of the TM are regular operational flights. Make sure, though, that test flight entries are made as spelled out there, indicating any addi-

tional test flight required and any faults found.



Q Do general rules on replacing lost or mutilated forms apply to DA 2408-16?

A General rules on replacement of lost or mutilated forms in para 4-2 of TM 38-750 are not complete for the DA 2408-16 for aircraft components. Additional detailed rules for this form are in para 4-15d(2) of the TM.



RESCINDED MWO'S



Dear Half-Mast,

What do I do about an MWO listed on a DA Form 2408-5 when I can't find the MWO listed in DA Pam 310-7?

Sgt R. H.

Dear Sergeant R. H.,

If an MWO is no longer listed in DA Pamphlet 310-7, you'll know it's been rescinded.

If an MWO entry has been made on the 2408-5 and the MWO was not applied before it was rescinded, then you make an entry in columns f and g citing the pub that rescinded the MWO. Columns h and i should show the organization making the entry, plus the signature and rank of the person confirming that the MWO has been rescinded.

Rescinded MWO's are listed in the 310-series DA Circulars and in the EIR Digests. If you can't find them in these pubs, send a list of the MWO's to the commodity commands responsible for them and ask for the pub numbers that rescinded them.

If a rescinded MWO is not listed on the DA Form 2408-5, then forget about it.

| MODIFICATIONS REQUIRED | | | | MODIFICATIONS COMPLETED | | | |
|-------------------------------|------------------------|-----------|---------|----------------------------------|---------------------------|--|--|
| MWO NUMBER | DATE OF MWO (MM/DD/YY) | PRI-ORITY | REQ-EST | DATE MWO APPLIED (MM/DD/YY) | ORGANIZATION APPLYING MWO | SIGNATURE (Date/Name of MWO Approving) | |
| TRUCK, UTILITY, 1/4-TON, M151 | | | | | | | |
| 92320-718-10/13 | 27AAY165 | N | D | RESCINDED BY DA CIRC 24 (OCT 65) | CO B 4TH INF | Samuel Walker Capt 1965 | |

WHO MADE THE ENTRY

Cornie's Mini Minis'

I GOT A
SIMPLE
FIELD
FIX!

WHO AST YA!

WE HEARD
YOU HAD A
MAINTENANCE
PROBLEM!

Mortar Round

Need an M68 inert round for training on your 81-MM mortar? Ask for it as FSN 1315-892-4991 (C228) through regular supply channels. That gets you the projectile without fin assembly, which is ordered separately as fin assembly, 81-MM, M6, FSN 1315-028-4952, (C241). For a complete training round you also need an M3 cartridge ignition, FSN 1315-028-4954 (C243). The components are issued separately to make it easier to replace parts as needed.

Hands Off the 79PS

A glow in the low-level warning light for your Hawk missile system's high-voltage power supply should mean only one thing to you. Replace the module and return it to GS. It's not your job to check the fluid level in the HVPS modules. You could contaminate the fluid that's already in there—causing the modules to fail.

M18 Memory Unit

Nothing fits a sick memory unit disk from an M18 gun direction computer like its own luggage when it goes traveling back to support. Wooden boxes and such can't compare with that nifty looking plastic Shipping and Storage Container, Disk Memory Unit, that goes with FSN 1220-869-6547. It's identified in your DA SC 1210/70-LL (Jun 69).

You a Wheel Man?

If you're a driver of wheels, then be sure to get and hold to your heart TM 21-305, "Manual for the Wheeled Vehicle Driver." Lots of good driving and PM scoop in that one. Get copies of it with Ch 1 and 2 from the AG Pubs Center, St. Louis by ordering on DA Form 17.

TM on Storage

If you've got any questions on Administrative Storage of Equipment, get your mitts on TM 740-90-1 (Mar 68) w/Ch 1 (Jan 69) — that's what it's all about.

Shackle 'n

Shackles for your ¾-ton trailers are in the supply bins — but use FSN 4030-542-3181.

More Air

"Give 'em 10 PSI more." That's the word when you ship any rubber-tired car, truck or trailer on a railroad car or truck. Increase the tire pressure 10PSI above normal highway pressures after your vehicle's tied down. This will help prevent damage to the tires from the bouncing your vehicle gets on the train or truck. Some transportability TM's like TM 55-2320-209-10-1 and TM 55-2320-211-10-2 give this word. When you unload your vehicle, drop the pressure to normal.

290M Gear Kit Ready

No need to let your 290M stay dead-lined for a wrecked or faulty torque converter. Request Support to ask for Kit, Converter Drive, FSN 2520-781-7956, and get you back in business. The big fiber gear, flat washer, special washer, studs, metal ring and nut are in it.

W9E and 70E, 70a

When you send your DA Form 2028 for improving tool kits or sets. Be sure to include your unit identification code (UIC) and your equipment TOE authorization numbers. This info will make it easier for the tool people to evaluate your particular problem, and you'll get faster action.

Your PS Index

An index to PS Magazine is printed every 6 months covering the latest 6 issues. It is distributed to the same units that receive PS on the basis of 1 copy of the index for every 3 copies of PS Magazine. Indexes covering PS issues 176 thru 205 are available from the PS office, Fort Knox.

Good Bumpers

When you need a bumper for the hood of your M715 1¼-ton cargo truck (or M725 ambulance, etc.), ask for Hood Bumper Assembly, FSN 5340-792-8125.

No Repair

Replace—don't repair. That's the word on the fuel pump in your G741-series ¾-ton truck (M37B1 etc.). Army users are not authorized the repair kit in TM 9-2320-212-20P (Feb 60)—it's for MAP countries only. A new fuel pump comes under FSN 2910-563-5495 in the .20P.

Scout Belt Fix

If your M114/M114A1 Scout has a belt-drive steer-unit oil pump the belt will chew up the pulley, which is made out of soft aluminum, when a new FSN 2805-912-4110 engine is installed. You can prevent this by relocating the pulley approximately 1/16-in further out on its shaft. (Recheck with straight edge.) If your steer unit has direct drive (vehicles with Serial No. 2520 or above or vehicles to which MWO 9-2320-224-30/8 has been applied) you won't have this problem.

Julian Style

Julian dates are still in style for TAMMS and supply records. To keep up, be sure you have a Julian date Calendar nearby. FSN 7510-226-5401 will get your outfit a package of 50 calendars from GSA. If one's not handy, a Julian calendar is printed in AR 735-35, and a Julian conversion chart is in TM 38-750.

Would You Stake Your Life *right now* on

the Condition of Your Equipment?

AVOID RE-TIRING

CHECK INFLATION **ONLY**
WHEN THE TIRE'S COLD—
NEVER BLEED A HOT TIRE
TO RELIEVE PRESSURE.

