

Issue 127

PS

PS Series
1971

THE
PREVENTIVE
MAINTENANCE
MONTHLY

IF PUMPHAM HAD
TAKEN CARE OF
HIS DRY CELL, HE
COULD HAVE
GOTTEN HELP!

IF BUCKWORTH
HAD DONE HIS REG'LAR
PS ON HIS WET-CELL,
HE'D BEEN CLIPPED
HERE BY

Monthly
Class
100 pages
50¢

Bill Brown

READ IT... *and* WEEP NOT



You can look at it two ways next time your M&E or other maintenance suggestion reports words you already should have heeded, and undoubtedly know . . .

Words like, "You should read the TM" or . . . "Read the TM" . . . or "It's in the TM, Mademoiselle. Just turn the page!"

You can listen like it's coming from a record that's "in the groove."

Or you can listen to it with a "broken record" attitude, like the words have lost all their meaning. This results in a com-

munications gap — with immediate and sometimes negative results.

So as it may seem, there are some operators and organizational maintenance men who get in a bind-out in the business when their equipment quits, and are not even aware that the trouble-shooting charts in the TM would get 'em back in business quick.

What's even sadder, there's the occasional guy who doesn't even know the trouble-shooting charts exist!

Illustrated instead on the maintenance

READ IT... and WEEP NOT



You can tell if it has any real time your HED or other maintenance supervisor spends with you (which should have been, and undoubtedly was, ...

Words like, "You should read the TM" or ... "Read the TM" ... or "It's in the TM, Ma'am/ma. Just turn the page!"

You can listen like it's coming from a record player's "Hi-Fi" groove."

Or you can listen for it with a "broken record" attitude, like the words have but all their meaning. This results in a con-

tinuation gap — with immediate and sometimes explosive results.

Get to it right now. There are some operators and organizational maintenance men who get in a pinch-out in the shop when their equipment quits, and are told each other that the trouble-shooting charts in the TM would get 'em back in business quick.

That's even sadder, there's the occasional guy who doesn't even know the trouble-shooting chart's word!

Frustrated indeed on the maintenance

DEAR CONRO OR BONNIE: I would like PS Magazine to run an article about (describe your organizational maintenance problem):

I am in _____ CONRO; _____ BONNIE; _____ MAJOR; _____ EDITOR; Other _____

Draw this card out
and tell me what
you want to see
in PS.



1

2

3

4

5

6

7

PS Magazine
1000 ...
1968

PLEASE WRITE OR PHONE: I would like PS Magazine to run an article about (describe your organizational maintenance problem):

I am in _____ COMPANY: _____ SIA: _____ PARISH: _____ COUNTRY: Other _____

Tear this card out
and tell us what
you want to see
in PS



DEPARTMENT OF THE ARMY

PS MAGAZINE
FORT KNOX
KENTUCKY 40121

ADDRESS, POSTAGE

ADDRESS ONLY THE MAIL

PS MAGAZINE
FORT KNOX
KENTUCKY 40121

Drop this card and
and tell me what
you want to see
in PS.



R
W
N

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PS MAGAZINE
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PS MAGAZINE
FORT KNOX
KENTUCKY 40021

From this card and
and tell us what
you want to see
in PS.



...and you who know it
to a girl in trouble... only to find that
the solution to the trouble was in the
Dark 50 or 20 70. Or what's even more
clear, perhaps, to find that operators of
and how many people don't even have
TV's with their

Yes, I ask you...

The message, of course, is obvious:
Read... and for all you can, like this
best... and do it all you can.

Operators and Pilots, you'll really
know it.



THE PS MAGAZINE DEPARTMENT
OFFICE NO. 207 0471, Fort Knox

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televisions and 20 types into footlock it to a unit in trouble... only to find that the solution to the trouble was in the back 20 or 25 TM. Or what's even more clear printing, to find that operators or call-level repair people don't even have TM's with them!

Now, Frank you...

The message, of course, is obvious: Read... and be all you can. And then read—and do all you can.

Examine and Pileup, you'll really benefit.



100 NORTH WASHINGTON STREET
 HOUSE NO. 227 1975 BOSTON
 MASS.

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Use of back to check in the case
 of a... (text is partially obscured)



Editorial Board
 PS Magazine
 100 North Washington St.
 Boston, MA 02111

KEEP THAT S-CURVE MEAN...

STAY SHARP

IN THE SCENE

THAT BLACK DOT OF OIL ON THE TIRE POINTS TO THE TIRE WEAR PATTERN OF YOUR TIRE. CHECK IT. ON AN OIL PATCH IN THE CENTER OF THE TIRE, YOU DON'T WANT TO SEE THAT!



Want you, the driver, to be the guy who decides whether it's "OOP" or "NO-OOP", here's what you need to know:

FRONT

BRACKETS—Don't let the bumper do all the work. Use brackets to keep the bumper up both the driver's and passenger's sides.



SHOCK ADJUSTERS—Look, pin loose, bushings worn.



SHOCKS—Look for what's sticking against your shocks. Lower right especially. Check for corners, handle cracks in pin.



SHOCKS/SHOCKERS—Should swing out of trail after subject is in road.



STAY IN TUNE WITH YOUR INSTRUMENTS AND READ THE G-POUNDS-TO-TON.



WHEELS—If ground cable isn't loose in drive, you're missing. Check pin joint from wheel lockers, making it so don't show vehicle without an emergency substitute or replacement pin — the drive shaft will drop right out on the road.



UNDER THE HOOD

ANTI-VEHICLE SHIMMERS—As it is possible to sit atop radiator stream, I sit outside of radiator, I use each side between hood and fender, I sit rear of hood.



SPARK PLUG CABLES—Fraying, twisting, burning, fraying, fraying without there's several ways to keep 'em on off handily, four clamps missing.



ENGINE AIR COVER — Cracked, gasket missing, may be installed wrong side out, top nuts too tight (7' 8" in the back), otherwise aluminum cover cracks. Oil filter tube cracked, loose.

EXHAUST MANIFOLD — Cracked, leak slowly. They could be fixed. Flange joint to exhaust pipe broken, leaking between manifold face and block.



HOW'D THE
ALUM. COVER
HOLD?

DISTRIBUTOR — Ignition leads loose to top, cap screws loose on base, and fine leak, cracked, primary feed frayed.



WAS — Bent, hitting radiator or thread is backing, usual water accumulation down you.



WATER PUMP — Leaking, pulleys and fit not aligned, alternator or fan belt tension too tight or too loose (alternator fit is defective).



ALTERNATOR — Pulley clipped, with My 20's, leads fraying.



DIPSTICK—Missing, low oil level.



OIL FILTER— Loose, leaking.



WATER CYLINDER— Cap gone, fuel leak, steam-cranked oil or loose.



STEERING LINK— Loose, fuel leaking, too much play.



WOOD SUPPORTS— Springs broken, hinges bent, pins sticking or loose.



WATER— Oil or coolant leakage, fuel/coolant lines loose or broken, blower hose or blower.



AIR CLEANER— Blocker(s) near fuel breaker line, fuel pump breaker hose, or master cylinder breaker tube; flexible air tube cut, loose; top or bottom clamps loose.



CARBURETOR/BASIS/ID— Fuel leaking, linkage loose or broken, vacuum solenoid sticking; manifold cracked at joints, fuel nuts loose, carb loose or moved.



CH-23 — Wire to blackout marker lamp broken or not; horn harness broken; cut horn mount; knock-out lamp working well but frozen, cut; transmission bracket line cracked; hand PDP valve line disconnected; damaged oil line; sure safety switch/switch unit wire broken, frayed.



CAB



DOOR — Panels damaged; handles broken; sticking glass handles, loose; buttons not working; hinges bent or loose; rust or cracks showing.

TOP — Canvas torn, seams ripping; faded, rotting, loose.



SEAT — Torn, loose, cut, bent.



BATCH'S ROO COVER — Canvas rough, edges cut or so to endanger operator's hands. If someone has switched the cover and forward to make a 3rd seat, switch it back — only 2 men are allowed to ride in the cab. Besides you can reach up your arm on that cover in the wrong position.

CONTROLS — Switches loose, broken, handles sticking, handles unworkable, handbrake linkage sticking or loose.



WHEELS — Cracks, tilt, loose brake etc.

WINDSHIELD — Glass pitted, "cracking," cracked, pitted (cracks that leak and shield in hand cracked, cut, loose).



SPARE TIRE — Check tire tread — 1/2 inch is right, 1 inch is too much.



BATTERY (EXHAUSTER) — If present! Un-used, discharged.



CARGO BODY (Left)



FUEL CILI MOUNT — Steps broken, missing, bracket loose.



PAWEL — Canvas Rebarbed broken, missing. Bottom lines sagging, cracks in holes, deep dents or rust showing.



TANK FLASK — Cap loose, straps loose, leaky. Take a special check if you have the M133 ambulance. Check straps top and bottom — if any fuel moisture shows, that's too much. Then get in the rear body, remove straps and cushions, and see the seams including the filler neck — if you see any fuel weep, report immediately. While you're there, eyeball the heater fuel pump to be sure it's being right.



WHEELS — Lug nuts loose (500 lb-ft torque) loose, missing, studs stripped, sh-ings area damaged, pressure too low/high, tires rot, worn to fabric, wheel discs twisted out of line, rim rot of round or both feet.



REAR



FUEL MUFFLER — Lt. gone, spring soft; gasket missing, assembly dirty, corroded.

WHEEL — Won't work, broken, spring at pin slack, unbalanced, won't turn, bent.



COMPOSITE LIGHTING LIGHTS — Lenses broken, lamps missing, gaskets hardened and cracked, lens operating noisy.

TAILGATE — Chains broken, pins bent, rubber bumpers gone, hinges sticking, bent, noisy.



REFLECTORS, MIRRORS — Broken, missing, lenses, mud-caked.

BUMPERS — Bent, noisy, shackles missing, pins slack.

FITTING — Cargo tie-downs bent, missing, loose rope ends fraying.

UNDERNEATH



TRANSMISSION-THROTTLE — Auto foot, making slight slip from the footing plug hole to full locking is normally late level low in case.



DRIVE SHAFT — Used rotating, twisted.



DIFFERENTIAL — low later level, body.



FRONT OIL PAN — Slip ring, plug case.



STEERING — Flange arm, lift arm, shaft base, gear fittings steering, broken.



FRAM — Rest, cracked, support arm breaking at bolt.

SHOCK — Slip showing on lower rest broken.



SPRING— Loose brake; clamp loose.



SHOCK SPRING— Brake, twisted loose.



SHOCK TAIL— Loose, flat; support damaged; parts missing.



EXHAUST SYSTEM— Pipe cracked at turn; clamp missing; broken holes in muffler; clamps rusted thru; 4-bolt clamp loose (see operating tip).

CAD TIRE— Mud or stones on tire support strips or fork bottom gasket, bent.

TIRE BELT— Folds; fastest brake; 14 gasket missing; tube missing, broken.

WE'VE
CHECKED
ABOUT
EVERYTHING—
AND THE
SCOOTER IS
GOOD TO
GO!



OPERATING

STARTING — Starter button built in front, ignition master, rear.



LIGHTS — All working.



INSTRUMENTS AND GAGES — All working.



BONUS INFO

Here's some supply gear for your M4 that may be hard to find:

ITEM	PN OR P/N
lamp, spotlight light, for M726 (also M8)	
12V	1191-288-292
lamp, spotlight light, for M726/M726*	
.....	1129-288-292
Washer, rear and	1191-140232
Pin for washer, rear	1191-140262
Brush, charging coil	1191-1402-2422

ITEM	PN OR P/N
Pin frame	1191-288-292
Spotlight, Maintenance truck M726	P/N 1129-288-292
Wrench, bearing nut (both front & rear)	1129-144-176
Lock ring w/threads	1129-288-282
Wrench, roller flag	1129-144-174

M726 SPOTLIGHT BRIGHT

If you line up the spotlight on your M726 1 1/2-ton telephone maintenance truck, don't try to get replacement parts. Order a whole new one by exception-only request. Use P/N 1191-288-292, Mfr. Code 78977. Mfr. is ECM.

Or you can buy-purchase (per AR 119-18) direct from Unity Mfg. Co., 1288 Clybourn Ave., Chicago, IL 60618. Use the same P/N and Mfr. Code.

The ECM for "spotlight" is your TM 9-2410-244-200. You see you get the wrong item, so forget it.



FINGER-TIGHT—BUT T-I-G-H-T!



The brake master-cylinder plug on the MFI 1-series 14-cup trucks should be installed only finger-tight.

A lot of guys've been messing up the plug and cylinder by turning it down too hard with a wrench. Sometimes the whole wheel has to be replaced with a brand-new cylinder.

When you finger-tighten that plug, get a good grip on it with your thumb and finger and then push some real muscle into it.

Don't worry about hurting the plug or master cylinder. And—remember, no wrench!

TS-RM TRUCK...

AIR CLEANER FIX

Dear Mr./Madam,

We're using up an awful lot of these air cleaner-to-vehicle mounts on our MFI 14 Series trucks.

It's hard to keep the air cleaner snug on the coils, as the guys really get the mounts to that sticky point—and this strips the threads.

My, what's the answer?

CWO M. L. R.

Dear Mr. M. L. R.,

The answer to this problem came out in THE TRUCKS-1 (Apr 70), Article 45. With this pump, you don't even need that clamp.

You can fabricate a hold-down bracket and a ball-and-rod that'll keep your air cleaner tight on the coils.

Oh, instead of making your own ball-and-rod part of this deal, you can get a ready-made job from the manufacturer. Your support talks for Part No. 145264 at your local Jeep parts supplier, or write to: American Motors,



General Products Division, Jeep Corporation, 700 W. Chippewa Ave., South Bend, IN 46623.

For this "best purchase," you'll need your CD's and need you'll use AR 115-12 (Mar 69) as authority.

USE YOUR TIMING LIGHT



The ignition timing light can keep an engine purring instead of on dead lines.

The timing light, \$29.95-49.95/59.95-72.00, is in every organizational automotive Common Tool Set—waiting to do the job. But it needs a groove cut in back to sit up and put it close to point. Here's the way you go about putting the timing light.

MARK WORKING UP ...

1 Check the vehicle's '88 TM (the manufacturer's manual) if it does not have a distributor manual for timing correction and location of the timing marks. The marks could be on the damper, crankshaft, pulley, flywheel housing, ring gear, etc.

What does your pull up about the vacuum line to the distributor? If it's to be removed, make certain you tape over the opening next to the hose. Although the light is pretty bright, it's best to position the vehicle so the timing marks are shaded.

CAUTION: BE CAREFUL ON A BOO TRIP AND LOOK AT THE VICTIMS OF A BOO TRIP.



2 For vehicles in which the water seal the timing timing mark comes in sight. Check and check it. If the pointer is necessary mark is hard to see, check it too. Mark the marks as clear as possible.

3 If you're not certain whether the distributor rotor is positioned correctly on the distributor base, mark the position of the rotor going to the spark plug on which the timing is made. On most spark ignition engines this would be the No. 1 spark plug. Now remove the distributor cap.



- 2** If the cover is not pointing to the mark you made, loosen the distributor



cover plate bolt — not too much, and turn the whole distributor until it fits.

- 3** To point off your distributor point setting, hook up your tach-dwell meter and check them out. (See FS 218, page 5). Point dwell must be set before timing.

- 4** Then adjust the points for the specified gap setting like it says in the TM or manual. When set, re-tighten the covering bolt enough to make the distributor wiggle, then replace the cap.



- 1** Hook on the timing light — place it where it won't fall while you're working. Find a safe place to stand and a spot to hold the light while it flashes on the damper — close of the rotating fan.

THINK LIGHT HOOD-UP...



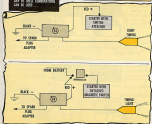
- 1 Spring over the battery leads—**RED** is positive (+) and **BLACK** is negative (-). Connect them to the vehicle battery.



GROUND LEAD TO NEGATIVE TERMINAL (BLACK)

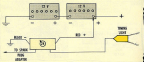
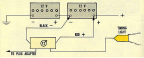
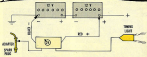
POSITIVE LEAD TO POSITIVE TERMINAL (RED)

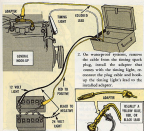
USE AN INVERTER/CHARGER ONLY
USE AN INVERTER...



WIRE THE LOGIC GATES TOGETHER FOR THE JOB.

1





2. On waterproof systems, remove the cable from the timing spark plug, install the adapter that comes with the timing lights, re-connect the plug cable and hook-up the timing light's lead to the installed adapter.

On non-waterproof systems just slip back the spark plug's rubber shield and make the hook-up above. It's a good idea to use an adapter to keep from damaging the rubber shield.

Then...

1. Start the vehicle engine and run at idle or at the RPM called for in the vehicle's manual.
2. Move on the timing light selector switch to the voltage setting that'll match your battery hook-up (12 or 24 volts).

OH! YOU'RE STALLED!



- Flash the light on the timing marks. If they ain't too matching, turn the whole distributor until they do. Then tighten down the distributor.

CHECK THE MARKS...



TURN THE DISTRIBUTOR AND TIGHTEN THE BOLTS



TIMING ADVANCE...

- If you disconnected the vacuum line from the distributor vacuum advance, reconnect it.

- Step up the engine to about 1100 R.P.M. Watch the timing mark — it will appear to move away from the fixed timing pointer. When you drop to idle they should go back together. If they don't behave this way then it's a job for your support.

1100 R.P.M.



IT'S APPEAR TO MOVE AWAY FROM THE SIDE OF

1100 R.P.M.



AT 1100 R.P.M. COULD ONE TALKING



CRACKING UP...

- If the back valve gets hot, don't worry — it's normal.
- When the light gives you a flutter, your spark plug lead is too close to other plugs. Re-routes it until it'll only respond to No. 1 plug.



3. When the timing marks jump around, the cause can be the distributor gap, condenser, wear or weak points around spring.
4. When the line looks like a hair— or an inch wide— the cause may be a worn distributor shaft, weak governor springs, or a loose connection in the primary circuit between the battery and distributor.



STEP 17 ...

WHAT ABOUT
OL' SOFTIES
AND AN
EXERCISE!



Bottoms and move the leads in the timing light box. Instead of stuffing the cables and clamps into the storage space like crumpled spaghetti, coil the leads around in a loose loop on top of the unit then move the clips and light down in the storage space.

OL' SOFTIE

You may get the Eagle Kit, P/N 2330-001-1141 for your M111 truck family ... or, you may only get a small kit water with that name (SM).

Items that under Contract No. DA4801-70-D-0002 a soft water was mistakenly put into the kit, and shouldn't be used. The right water ended up packaged with the name (SM) on the kit, so you may get only the water or when you order the kit.

If you get the kit without the replacement water, or vice-versa, go back and get it right.



M551 SHERIDAN EXTRA EFFORT AREAS

USE
PUMPS
AND
COLLECTOR
WORKS



A little extra effort in these 3 areas will keep your M551 Sheridan purring like a happy puppy cat . . .

ROCK BAL

The road warts have a nasty habit of loading if you don't rock them enough so they stay in shape.

Unless the road mechanism gets a workup through firing to ease its strain every 2000 hrs, Ch 5 (Para 78) on TM 9-2390-244-50 (May 68) — Excavating of Road Mechanism and Equalization — gives your support the word on this. This change says to repeat the exercise operation at least 18 times to make sure the metal slide area and rods are lubricated instead of operating in only 3 times the way Ch 1 said.

COMPRESSOR CARE

If your M551 has the closed branch storage system, be sure to read Man 11 in your M3 (P-2390-250-11, page D-1 in Ch 8 Para 70) of your TM 9-2390-250-12 (Jan 69). It shows you in to reduce the strain and add time interval for your compressor under various operating conditions. This would include extra high or low temperatures, long operating periods, operation in sand or dirt or if the compressor gets covered with water.

Ch 8, page 8-89, also sets up the maintenance interval for the air intake strainer and for the compressor chemical dryer — 600 rounds or 50 compressor hours.



ROCK BALL
IN USE
TM 9-2390-244-50



The steps on removing and installing the compressor chemical dryer cartridge is on page 10-25.2 of Ch 6 in your TM 9-2390-250-12.



DRAIN COUPLER

Your M551 might have an early design or a late design transmission drive assembly. The main — also it after every 40 operational rounds . . . that will be the day and next rounds find on your DA Form 1030-1.



DRAIN COUPLER
TM 9-2390-250-12

M551 CABLE FSH



It's good enough cable or 2 the year M551 (M3) workdays mounted on the M551 (M3) cable?

Like you already know, CS-11 000 is a basic issue level in the TM for the workdays.

ROCK TO MAKE CABLE FOR CABLE



And, you get 3 other cables in the workdays adaptation in that comes with the M551, including:

FOR M551 (M3) (M3) cable for mounting cable.
FOR M551 (M3) (M3) cable for cable.
FOR M551 (M3) (M3) cable for mounting cable.

You'll find too in TM 9-2390-250-2072 (Sep 68).



TABLE VIII
NO FEET...

If your feet would keep their feet in their pockets and their hands in their heads, there'd be a lot less damaged equipment in the man's Army.

Witness the self-propelled Vehicle 424.

The guy who grabs the rubber web's "spider," or antenna guard, at the bin-



will ahead the track is setting the spider up for a repair job. Handy though the spider may be, it's no handhold.

On the other end, the animals who draw glass, lenses and other fragile items are no match for a foot or a hand or a guy stepping on or out of the mount.



Wants when you put 'em down. Check the W1 cable in the distribution box. If it's loose, snug it up. Otherwise, it'll cause excessive arcing on the rotor.

The screws on the backplate of the distribution box also can stand a check.



NO HANDS!

For starters, because of their work hours during training, the hands can crack off the remaining service.

Gives 'em a nervous wreck.

A reminder of an old problem: If you've got low output on the D-Box, or if you can't get back protection circuits, suspect a loose positive cable in the front of the mount (the big one vibrates loose from the slip-ring).

Fast it, loose cables throughout the system cause many problems that other-

wise wouldn't be around. It's good EM to check 'em whenever possible, and to suspect 'em when you get a malfunction. Keep 'em snug.

Disturbance during the course may mean you've got a malfunction . . . and both operators and mechanics can see into cables in the box by reading the TM.

A good parting thought: Get familiar



with Table 1-2, Item 61, page 3-9 of TM 9-2380-20-10, the failure during-after operation check routine check.

They can turn a block or two, so that keeping water away from electrical and electronic items.



RED EYE ON THE CHARGE

"(Sigh) I wonder how long this will last."

"RED EYE! RED EYE!"



Keep the lid on this and your MFM (making an Ohm-meter) can have the "giz" it needs to get up 'n go. On what?



On the battery-charger, what else? The lid, of course, should be on the charger whenever you're not using it.



Among other things, the lid keeps dirt, moisture whatever from getting into the battery until . . . where it shows the results for the heating circuit.



Not only that, but it's hard to get out. And about those 24-112-batteries: You go with them if you can get them. 11-2V or 24 volts are all there. If you get less than 11-2V, replace the batteries.

The voltage indicator on the charger



"WON'T YOU DO THE JOB . . . WITH PROPER CARE?"

"BE SURE OF BATTERY CARE."



you give you a 100-percent charge reading when your batteries have less than 60 volts, so if your battery's not giving you the performance you think it should, have your supplier check it out with a multimeter.

Normally, it'll take about 1 hour to fully charge a battery . . . and the battery should be removed from the charger or when it has a full charge.

Have a 24, Ch 2 (page 104) of IEM 94 6230-428-11, goes into detail on charging procedures.

Just remember: an older battery's not going to come up to 60V. In which case, bring it up to six packs . . . and stop. So long as you've got 11-2V or more, you're go.

When you insert a battery in the charger well, or in the cabinet, slide it home easy-like. If you shove it or slam it in place you can break the plastic dovetail and damage an expensive bat-

tery (some support shops have come up with a dovetail metal sleeve, so check your supplier if you do damage the dovetail).

Finally, check your battery's for leaks. If you've got electrolyte outside,



wipe it off with a damp cloth . . . and your batteries will give peak performance.

One caution: don't touch both the wavy contact rings at the same time with the cloth . . . or you'll get up to 6000v volts. Clean one contact ring at a time.

JOE'S
DOPE

**BATTERIES...
BABY 'EM!
1 LEAD-ACID**

"WE
GOT POWER
AND CHEAPLY!
THEY NEED
CONSTANT
POWER!"

SCOUR BROOMS (BRUSH BOMBS)



FOR \$50-000-000 (100)
OR
FOR \$50-000-000 (2000)

SCOUR BRUSH



(10-0000 BRUSHES)

BATTERY PUMP
SYSTEM



FOR \$100-000-000



BATTERY PUMP,
SYSTEM
FOR \$100-000-000



2 1/2" DIA. BOLT

OR 200 BATTERIES
(NOT AVAILABLE)



...JOE GUARANTEES
AN 80% POWER AND
IMPROVED 80% CHOICE
...OR IN A YEAR,
EMERGENCY ANY
WARRANTY.



"MOST BATTERY-POWERED
EQUIPMENT DEFERS IN
BATTERIES THAT ARE
READY-TO-WORK RIGHT NOW!"



"HOW
DO YOU
DO THAT?"

"OK, I'LL SPELL OUT
YOUR PROBLEMS
AND SHOW YOU HOW."

CHECK ELECTRITE
DOES IT COVER THE PLATES?

ADD WATER
TO 25-INCH
ABOVE PLATES

NEVER OVERFILL!

**BEFORE
OPERATIONS**



AFTER ADDING
WATER
REPLACE
CAPY COVER
BUT NOT
TOO TIGHT

**HOLES
CHECK**

TEST COILED AND
FLANGED TO FIT
TIGHT AND
FREE.

TESTING TO BE WITH
TWO WIPERS



HOLES CHECK

IF THE COIL SHAKES OR
MOVES THE HOLES ARE
TIGHTEN THE BOLTS!



DURING OPERATIONS



REPORT
READ OF
OVER
CHARGING!

AMMETER



IF IT DOESN'T DROP WHEN IN
OPERATION, IT IS DISCHARGING!

BAT-SEM INDICATOR



WEEKLY CHECKS AND SERVICES



REPORT THESE ISSUES TO THE MAINTENANCE!



CRACKS OR LEAKS!



CRACKS OR LEAKS!

WASH WITH OIL CORROSION OR HOISTING AND TEST

CLEAN & PAINT!



VENTS CLEAN!

DON'T ALLOW THE WIND TO BLOW INTO THE ACID EXHAUST! THE ACID CAN FREEZE! AIR - AND FUEL - CAN CLEAN WITH STEAM WASH.



WASH THE BATTERY TOP WITH BAKING SODA-WATER SOLUTION.



BUT KEEP IT OUT OF THE VENT HOLES!

WASH WITH CLEAN MOTOR OIL-DO NOT WITH CLEAN OIL!



KEEP A LIGHT SAKE OF OIL ON BATTERY HOOD AND CLAMP.



HERE'S A PROBLEM - WHAT'S THE ANSWER? (Point it?)

JOE'S

Dope Sheet

IF LACK of PM, puts an end,
To batt'ries on which you depend—
Who's then gonna HEAR
Your fine COMMO gear?—
Your MISSION will suffer, My Friend!

But sir, in PM—Understood?—
And, Mike, they are gonna go GOOD!
They'll give ya support
When time's runnin' short
And SERVE ya the way that they SHOULD!

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

IF YOU WANT TO DISPLAY THIS ADVERTISEMENT ON YOUR BULLETIN BOARD, SEND SAMPLES, LEFT AT ONE AND FOR US UP.

2. DRY-CELL BATTERIES



THEY DON'T LEAK, AND THEY'RE
EASY TO USE — FROM SPACE TO
ALL CORNERS. THEN IT'S UP
TO EACH MAN TO KEEP THE
JAP IN HIS BATTERIES!



NO **TALK 'EM
OUT** IF YOU
KNOW THE SET,
FROM ONE TYPE
TO ANOTHER BY
REPLACING
FOR A DRY
OR TWO.



**THROW
'EM AWAY**
IF THEY...

EXHAUST

RELEAK

OR CORRODE



THESE BATTERIES CAN
BUILD UP A **GOOD**
RESERVE THAT LASTS UP
TO 10 YEARS, WITH NO
MAINTENANCE COSTS!



REPLACED 'EM TO
PROLONG THE LIFE... IT REDUCES THE
GENERAL AVERAGE AND COST.

OVERSEE THE
APPROPRIATE
BATTERY REPAIR
BATTERY SUPPLY
IS LOWEST...



REPAIRING
WHAT YOU
ARE CURRENTLY
OR REPAIRING
THE BATTERY.

REPAIRING
THE BATTERY
BATTERIES INTO
SERVICE, WHICH
THE USE OF NEW
BATTERIES, WHICH
IS A BATTERY (A)
BATTERY.

ON A BATTERY (A) WHICH
IS A BATTERY (A)



DO NOT
BATTERY (A)
BATTERY (A)



REPAIRING
WHAT YOU
ARE CURRENTLY
OR REPAIRING
THE BATTERY.

WHAT IS THE
BATTERY (A)
BATTERY (A)

THE BATTERY (A)
IS A BATTERY (A)
BATTERY (A)



A BATTERY (A)
IS A BATTERY (A)
BATTERY (A)



REPAIRING
WHAT YOU
ARE CURRENTLY
OR REPAIRING
THE BATTERY.

IF A BATTERY (A)
IS A BATTERY (A)
BATTERY (A)



REPAIRING
WHAT YOU
ARE CURRENTLY
OR REPAIRING
THE BATTERY.



REPAIRING
WHAT YOU
ARE CURRENTLY
OR REPAIRING
THE BATTERY.



HERE'S THE NEW SCREW



WELL, THAT'S
IT ACCORDING
TO THE
MILITARY
COVER.
FOR SALES -
98-10011

Now you can get replacements for the E1 screws that anchor the modified handle brackets to the BT-514 and BT-245 receiver assemblies.



98-10011



98-10012



98-10011-104-0011 will bring you 1 screw.

If there's a slight protrusion of the replacement screw head just above the counterbore of the screw hole, don't stress to remove it unless an exact fit is necessary for some reason.

If you need a flush fit, get E2 to modify the screw hole to make the E1-degree counterbore replacement.

You may find the new E1 handle holes line up perfectly as you insert and tighten down the replacement screws.

To get around misaligned screw holes, insert the replacement screws, but tighten none of 'em until all have been inserted.

Then, tighten them all a little at a time, to about the same degree. When you give into a team, give the others a turn, and so on.

Hard, quick tightening as you go can cause the handle brackets to be forced out of alignment — and the new screw might not fit into the misaligned screw hole.

Incidentally, if you're shy only 2 or 3 of the original receiver screws, use just the required 2 or 3 replacements. Don't replace any of the originals unnecessarily.

A LITTLE WORK'LL MAKE 'ER PERK



When you've got a stereocast A41 PBC-H or PBC-TT, and you can't figure out the circuitry, try this:

Give a glance at the POWER receptacle. If the steering caps is gone, be



sure the cap is screwed down enough to give you a snug fit.

Thing is, without that cap you've got no power. If the cap's only stuck on but not screwed down, you've still got no working set, 'cause you're getting no battery power.

Course, your auto set could've caught the jolt/sloshes from something besides the steering cap, but the cap always gives a good first look.

Buy a screwdriver that fits the



GET DOWN UNDER THE

control panel to the set need to be snugged in, as well. If there's loosens, someone can work into the Birk's harness.

There's a capless receptacle that screws the protective cap on the control panel



do their thing mighty well... they keep the caps from getting mistook or lost.

However, if a steel receptacle, it pays to get a replacement cap and steel pressure. A lost cap—minus its retaining steel—can get hard lost in an area.

While you're waiting for the replacement steel and cap, attach the screw cap with anything that'll hold it on the panel.

ON THE SEAMY SIDE



If your RA-186/PC-21 battery's 'peaks' as you with splits down the road ...

Just take some regular filament tape and apply it over the splits. Also, give the RA-186 a little extra reinforcement by crisscrossing the concerned slots with the tape.

You can get half-inch tape in a 50-yd roll with P/N 811-290-8034; for the inch-wide variety, see P/N 811-290-8035.



TIGHT-SPOT TRANSMISSION



If you're out in a real tight spot ... without assistance ... for checking your empty RA-186/PC-21 rolls ...

You can make the short-distance view by using a bypass as an antenna.

You don't do this as a steady thing, really—only when the chips are down and you're 'havin' for quick access.



THEY SHOULD
CHECK TELL I
GET A NEW TIP

A TIEDOWN TIP

CHECK! NOW I
GOTTA DENNY!



A tied-down **AL-1000** or **AT-511** antenna can be mighty dangerous.

Ask some Joe who tumbled into the tip at night or during your visitation, and copped an eyeball.

Here's how to play it safe.

With **IBM 1630-RT-2115**, you can go after an antenna tip assembly that'll blast that sharp point and cut down accident danger.

The assembly fits on antenna wires **AT-1001**.

You'll find the info on page 28, **TELETYPEWRITER (New 70s, Equipment for Government Reports and Maintenance Digest**.

Meanwhile, if you don't have the tip assembly, you can take the edge off the **AT-1000** with a ball, some tape, a cork, or anything else that will blunt the tip without interfering with antenna performance.

TELETYPEWRITER SCREW-UP



LOOSE
AND TIGHTEN
BY PROGRAM!

If you've got any **TY-4C/7D** teleprinters produced under Contract **DARHC-68-C-0017**, you may have encountered them.

The **1000-01** screws holding the clamps to the mounting studs weren't tightened well enough during production, and they're not holding the way they're supposed to. So check 'em out. You'll find the contract number on the maintenance plan.



TIGHTEN
BY PROGRAM!

THIS COVERS THE SITUATION

Dear Phil-Ann,

What do we do about the CR-400/VBC and CR-400/VBC control units? Have any one got 'em or, want any one have 'em off. Since CR-304, CR-344, CR-383 and CR-400 are involved, plus the R-42 receiver, we'd like to know how it stands. What's the word on the ground?

WAL R. V.

Dear Sergeant K. V.,

The incident type say you don't use the covers on your radio equipments. They say there's overheating due to insufficient air circulation. The word is in TB 780-811-1 (Nov 70), para 3-29, page 21 which points-out that the covers should not be used and are being removed from the supply system.



Phil-Ann

LOOP OOP!

Oops! Take a quick look at the FSN for the AT-784 loop antenna on page 5-1 of TM 11-4887-24-13 . . . and forget it.

The antenna, used with AN/VBC-11, FSC-13 and FSC-71 series radios, etc, should be listed under FSN 1830 080-1041.

The bonding, or diversion-fading antenna should be used as receive, only. Don't transmit with it.

FOR 1830-080-1041
IS THE BEST
SOURCE



LOADED? WHO, ME?



Some things and people can carry a load . . . and some can't.

And then there's the area between the two . . . which you carry a load will not straighten if conditions are right, like the ANFOBC-100 radio set.

So if you wanna stop your GBC-100's acting like the town drunk and have it hold its own like the surrounding others in it, do this:

Put the power to it only when its antenna is connected.

If you feed it the juice without an antenna hookup, you'll burn out the power amplifier tubes every time.



CONTACT MAKER

Next time power to your radio set (like YBC-12 and YBC-13 series) gets short-circuited at the RT-1012 contact, might be a good idea to have a HE-20 repair eye check out the 100-amp fuse at the contact receptacle.

But use for a Mow's law . . . slow.

Chances are good that if your contact has some age on it, and the fuse has been pulled a time or two, the contact can stand a slight spreading.

So, bend the contact prong in both end slightly inward . . . and re-install the fuse. That should do the job for you.

And always clean contact receptacle:

Be sure the power switches on the RT's are off before you push the components into the contact. If the switch is hot, you'll burn the RT contact pins and the contact receptacle contacts.

Fast is, you can burn the contact pins clear off.



FILTER FRESHENER

Say, friend, if you've got to make do with the old filter in your ABC-102 radio set by running it around on the fumes (there is almost no the blower frame, wash the filter first.

Warm, soapy water will do the trick, but be sure the filter's completely dry before you put it back. You might aid the drying process with a low-pressure air gun.

Naturally, there's still no rub for a new, clean filter when you can get it.



PIPSY-S NEEDS ADAPTER

If you've tried to match up an H-2H headset with your plain model ABC-102 radio set, you know it won't go.

And, since the H-2H is replacing the plain model's H-22A and H-22B headsets, you guess disassembling about it, right?

To ask for EOM 1805-435-7344, an adapter cable that'll do the job. Your authority is ME 11-438 (75 Feb 73). Read the ME for other steps on headset.



SEEKING SETSCREWS?



Can plenty of frustration find no screws for replacing control knobs and levers on the ABC-102 radio set? EOM 1805-435-5488 gets you 1 screw (set) packaged in lots of 100.

A STICKY SITUATION



104 00000
1040 000 ... 00 000

If your 38-221000 switchboard's spring-loaded loading pins stick and reject the line-wire insertion, you can beat the game, sir.

Put a dab of silicone grease in the line-wire insert tubes, or in the bottom pan under the loading-pin covers. FSM 38-221-5038 gives you an 8-oz tube of the stuff.

That ought to keep the pins unobtrusive from sticking so you can complete the line-wire insertion.

KEEP IT NEAT

A wire and a cord and a signal's creative effort can give your 38-221000 switchboard a super neat look . . . and save you problems with the 382 jack of the TA-221 telephone circuit.

Like, if you're not careful with the operator's cord of the TA-221 you can push it back into the panel. When you tug it out, the cord can snag on the contacts of the 382 . . . and hold them open.

So what to do? To keep the cord around the line jack plugs when you move it or it's being moved around, it keeps the cord out of the TA-221 and away from the 382.



382 00000, 382 000

SLIDE IT HOME

The line packs on your 38-221000 switchboard slide home easily. In case if you find 'em up ahead of time.

The packs go straight in. No force is necessary. Pushdowns or inserts you can break the little backer (plastic)—which puts the pack down.

Using the packs up straight before you install them means, see, that the cylindrical board will mate and make sense.

When you put the pack in on an angle, the board binds—and you'll make noise.



382 00000
382 00000

WRENCHES 3



Three keys, under local names (see Inventory), can be added to Teletype Writer Tool Equipment TB-285. Page 18, TB 730-910-1 (Date 70) gives you the word.

382	382
38200	38200-010
11440	38200-010
11440	38200-010



TESTER TOPICS

The TV-70 tube tester is a rugged and ready-to-use instrument "made any time you put 'er in the box.

It stays that way with your help.

Take the AC line cord on your TV-70. Frictionless. Every time you lower the cover lid, the cord gets a good-sized dose of grease and polish.



You need protective clamp TM 2075-417-115 to ward off the hands and pulls and pinches. Look for it on page 5, TM 11-4611-274-207 (Jan 68).



If you turn the LINE ADJUST control too far to the right, you can burn out the line tube.



So, make sure you don't give that control a full clockwise turn. That means a voltage surge and a ragged lamp.



To play safe, do this:

Before you power your TV-70, turn the LINE ADJUST control fully clockwise, then back it off approximately halfway.



Next, power the meter. Then, make the adjustment to correspond with the tube to be tested, the way TM 11-4611-274-211 (Jan 68) and its changes tell you.



In making the test, don't hold down the pushbutton any longer than you have to for a meter reading. Too long a hold-down can damage the tube.

Never leave the TV-70 powered in the extreme clockwise-or-counterclockwise setting.

Dust and dirt can build up your set, especially at the switch contacts. It can

fall down through the socket receptacles, joints and adapters.

You'll do well to keep the covers on any time the set's not in use—and the spare cleanings with the control panel removed will help keep the dirt down.



WANTED: BELT CLIP

NEVER
WANT THE
BELT CLIP
WHERE'S
THE
BELT?



Dear Bell-Boy,

We're getting some new TA-511FT telephones in without belt clips. Are the clips optional? If so, what's the part?

BT B. T. L.

Dear Captain M. T. L.,

Somebody goofed, Sir. The belt clips are optional, and if any new one you get don't have 'em, sure 'em back in to be complete. But either way, there's the only way you'll get the clip by itself is reinstallation . . . or from salvage. There is no FM, because the clips are scarce.

John M. Smith



A REAL SHOCK

Yours protects the rubber shock air switch that cushions the movement of the TA-511FT telephone set.

Save off fungus-induced dry-rot by swabbing the rubber frequently with an alcohol-dampened cloth, then dry the rubber thoroughly.

Never thing goes for the rubber that fits around the hook switch.



Yours has a buzzer diaphragm that's sensitive, and the one you've got has only a thin metal covering. It's so sensitive that you can probably cut down the buzzer sound by merely pushing a finger against the covering.

In other words, a sharp point or hard edge can scratch through the covering and mess up the rings. Take care.



A LOFTY PERCH

Choose the time when you find another jolly winged maintenance man. Use on a Chinook (UH-47) main rotor head, the B-1 maintenance platform is just what the doctor ordered.

You won't get your body off sick all on time, this, if you have to fumble around with a platform that doesn't rise on the B-1's tank even when you jock like stony with the hydraulic pump handle.



Could it be that you have a leak in the high pressure hose?

If so, somebody granted on the P-10 service called for in TSB 99-1798-304-11 (CAI-50) on your B-1 platform.

SAFE IN

Eye the hydraulic lines and fittings for leakage. If you find a leak, or any other damage, give the word to the maintenance technician. A B-1 hydraulic repair man for the know-how to make repairs.

Check the fluid level and if it's low,



Fill the reservoir with MIL-A-8080 in one inch below the blue mark.

Make sure the hydraulic cylinder safety lock is in position and the cylinder



locking mechanism... would head off a sudden air release.



"WORTHY MAN! THEY SAVED MY HANDS! THANKS!"

The hand rails should be in place. Even gripping is okay if you lose your balance.



The platform is made to hold 500 pounds—say you and your buddy, plus a tool box. An overload can break it.

When you're finished with the platform eye it over for leaks and damage—and check the fluid level.

No repairs are needed for operator service. It's the type of maintenance a maintenance man just naturally pulls on the ends of his hands.



ROBERT FRI

The monthly and yearly services are something else again. They're pulled by 40' or 48H types. A DED Form 214 has to be kept when the service is done under the supervision of maintenance personnel.

Every month do the operator's daily job.

Open up the platform to clean... slip hazard.

Operate the platform so you don't get stuck.

Paint job needed?

Use the time for rust, wear and the right inflation—48 PSI.



Check the hydraulic lines and fittings for damage. Inspect the wheel axles and clean it if it's dirty.

Every 2 months take the wheel bearing, immobilizing jacks and casters—and check the hydraulic fluid level.

Every year drain the old hydraulic oil from the reservoir and refill it with new, red juice.

That's about all it takes to keep you rising to the occasion in your B-1.

THE FOUR-FOOT

The other platform in your A, B and C tool sets, FFW 17M4244444, needs only a little PM. There's no TM on it.

Grease the casters every couple of weeks.

Keep 'er clean and painted, and she'll always be ready to roll.



STICKY WICKET...



That's what you'll live on your hands if you change from one engine oil to another without a little planning.

Like—changing from MIL-L-7808 to MIL-L-15889 in your Mohawk (P/N: 1) machine engine.



The newer MIL-L-15889 oil will loosen and dissolve residual carbon and lacquer deposits in a high-time engine.

The result can be a leak in the No. 1 main bearing seal. You can spot the leak oil deposits on the compressor leaves, on the bleed band, and on the compressor blades.

Fumes from the leak can even enter the environmental air system... (uh! It's healthy for airplane drivers.

Course, a main bearing seal can't be changed in the field, so the engine has to go in overhaul (ugh!).

Your best bet? Changeover on a newly overhauled engine. Then you won't have any internal sludge to gum up the works.

Run a high-time engine on MIL-L-7808 to TBO.

You can change oils on a low-time engine under 100 hours, but you have to follow the steps outlined in para 2b of TM 11-9112-300-21 (pg. 67) on engine and transmission oils, fluids and additives.

The same change-over poop of spring engine seizures, blow and melt is in para 1-67 of the Mohawk TM 15-1112-304-001-1 (10th 70).

MIL-L-15889 and MIL-L-7808 are similar synthetic base oils and are compatible. You can make sure if you've cut in the fumes and run short of the type you use.

Mixing synthetic base oils will not downgrade MIL-L-15889 to MIL-L-7808, etc., in aviation except under emergency conditions.

NOTE only synthetic oil with mineral base oils, MIL-L-6062, MIL-12891 or MIL-L-2104. They're definitely incompatible.



Caution to use MIL-L-1588 if the operating area for your Mohawk is the frigid North, Iceland, or temperatures below -15 degrees F.

SLIPS CAN HURT!!!

Place the jack feet on solid, level ground. If you're sure to be knocked out by the ground it isn't, use a plank under each foot. This is a you're clearing the way means when jacks react to the load.

Place the jacks so that a line drawn from the load and 2 feet will be parallel to the forelegs.



To load all say "air" get air under from your handles. Raise and 3 jacks at the same time by jacking slowly and evenly.

When the landing gear is about right:



on the rear lock nut against the cylinder and tighten the tension screw.

By the way, when you pull the release pin a little more you a jack under the tail section for support... not jacking off! Well, otherwise, it'll be dragged by the tail due to a shift in the center of gravity.

FOR NEXT

Keeping your jacks strong is the obvious idea; just a little effort.

Before and during use, try the jack several times, lower or raising (slowly, sure, from here maintenance, think in the line



and storage. Repair 'em on the spot or pass the word to your maintenance people if the signs of a hydraulic sealant are needed.

Check the oil level in the reservoir before use. If needed, add hydraulic fluid as called for in the TM, so bring the level in within 1 inch of the fill hole.

Before, during and after use, eyeball the flow connections, pump and the cylinder and run for leaks.

Before and after use clean the reservoir. A little GEA grease will keep 'em rolling.

To save wear and tear on your jacks, clean the gear from the snow and rain tracks.



Label the jack according to the table chart in the post, and it'll be ready to give your baby a lift.

When you jack up one of Uncle's birds you're lifting an expensive piece of equipment. That's why you want to use and maintain those 5, 10 and 15-ton jacks in your organizational maintenance tool set by-the-book.

So, for example, you need to cycle the landing gear on a Mohawk C-12.

THUD



PLAY IT SAFE AND KICK OFF THE AREA, PLANT A TORQUE WRENCH BEHIND...

LAUNCH, ORBAT IN JACK

Use the best organizational maintenance gear to insure the wing and fuselage jacking points and the weights of the load to be lifted.

Two of these 15-ton capacity 8-ft jacks—one at each wing jacking point—and one 5-ton-capacity jack at the forward jacking point will fill the bill. You can take out 10 add jack sections to get

4 lifting height from 2 to 6 feet on the 8-ft and from 3 to 12 feet on the 5-ft.

The word on raising and lowering your 8-ft is in Chap 2 of TM 51-1730-30810 (Jan 71).

Remember that raising the reservoir more out of the run more than 12 inches on the 8-ft, or more than 18 inches on the 5-ft, is a no-no... could warp the 8000-ohm-ohm load.



EASIER BALANCING



UP IN THE
AIR BALANCE WHEEL



The next time your favorite Kiewit CCB-1444 throttle jockey writes up a high-freq "bump" in the rail room, don't sweat it!

With 70-15118, and best birds, now have a balance wheel. By making adjustments on the wheel, blades can be balanced quickly without taking the mill out of the bird... even elbow grease, too.

One installation point, too, called out on page 8-18, Ch 1 (Jan 71) in TBM 91-1128-128-20.

The mark on the wheel will help the wheel threads.

So, using a spring scale hooked to the wheel stud, torque the wheel to about 30 in-lb — no more.

TAG IT NOW!

You know you've got the CCB-1444 fire extinguisher in your aircraft every 6 months and make the inspection easy on the DA Form 2654-18, right?

Right? Also tag the extinguisher so you'll have inspection logs to see the extinguisher is unweighed or never from one bird to another.

This word will appear in a change to TBM 91-1180-284-25/1 on general aircraft practices. Use a material serviceable tag, DA Form 1174, and mark the next inspection due date.

TB 740-116 (Ch 70) tells you how to fill out the tag.



MAXI-HELP FROM MINI-TOOL



Loading and unloading 1.75-in. rockets around with MINI worktools is a pleasurable's paradox!

It takes a mini-delay to load or do the rocket: you-or-take hit in any T- or T-rite location.



NO JOB TOO SMALL!

Here's a tool that'll help you push the rocket forward till it engages the detent, or to remove the rocket when unloading.

You can make it from pick-up items found in any work.

Don't hurry the job when you use the tool. A firm, smooth push after starting is sure the rocket base will set it firmly on the tapered part of the worktool.

A reaction—reaction—is involved and you can easily, quickly, and safely load or unload the rocket.

Always load and unload from the front—and you won't forget to release the detent on the launcher before reloading, will you?



LOAD AND UNLOAD FROM FRONT ONLY!



LAUNCHER HOE
FOR 470-217-717

SLAM HOE
FOR 470-218-697

WRENCH (SMALL) APPROX.
FOR 470-218-100

LET'S GET THE BEST OF BOTH WORLDS...

M18, M18E1 PLUG



A "shower" M18/M18E1 plug—also trigger release while underway—can give you a case of instant drydock and protection.

Course, there could be more's the matter to come with a trade . . . like maybe a hole in the hull and instant assembly vicinity of the M18, M18E1 automatic plug.

When you get a new pod, you'll find a plastic cover on the forward and aft electrical connections—to protect the cannon plugs from getting lost up during shipping.

Don't even use the remaining one as a permanent seal against the weather. Dehydration and normal chopper vibrations will lose it for you. When this happens, water . . . rain or condensation . . . gets into the connection and shorts out the cannon plug.

And that's all the wires . . .
be-cause!!!

A permanent type backup plug, PIN M18-104-4400, will stop this human trip. It makes a waterproof cannon plug and—ready for use that first time.



You'll probably use one of the systems "show-up" when you make the first electrical hookup on the Cobra.

MUZZLE THE NOZZLE

On your own, you gas pumpers.

Be on the lookout for the gravity fall nozzle that's about to go on a free-flowing spree.



PN 1 3001-3
PN 1 3001-14
PN 1 3001-14

You probably have one around if you operate the Highland Model 2000 truck-mounted tank and pump unit, liquid dispensing, PN 1 4930-277-0078 or the Highland Model TML2500 trailer-mounted tank unit, PN 4930-753-0053.

The liquid dispensing nozzle don't stop the flow of fuel when the lever is released, especially when a container in a vehicle can't take the full 90-gal-per-minute stream.

Here's how to make the nozzle behave.

Put 3 major valve discs, PN 1 3001-3, (from 1) on the nozzle stem, PN 1 3001-14, (from 1) instead of only one (from



in Fig 17 of TM 1-4930-217-24F (Apr 70). The disc is a component of the Fuel nozzle repair kit under PN 4930-710-8438.

That extra disc should stop the flow when the lever is released.

If it doesn't, send us DR (DA Form 2407) to:

Commanding General
U.S. Army Mobility Equipment
Command
ATTN: M3096-M
4900 Goodfellow Blvd.
St. Louis, MO 63128

BRIGHT EYES

Your explosion-proof flashlight can be swapped up for special jobs like inspecting PCL tanks.

All you do is replace the 2 standard BA 9B batteries with 4 PCL cells. You can get 'em through local purchasers. Course, along with this, you replace the PCL-6 bulb with a PCL-11. PSM 6140-544-1758.

The real result is a three-light setup.

The same deal will work with the standard flashlight. But for PCL inspection and work, use only the MX 1120 explosion-proof flashlight, PSM 6140-151-6020.



GET CRANE SAFETY DECALS



THIS DECAL
COULD SAVE
YOUR LIFE.

Crane and get 'em... for safety's sake.

They're warning decals required on cranes and other such equipment operating near electric power lines.

TB 305-181 (Jan 71) tells you how to use 'em. The decals give the clearance required when working near high-voltage lines and other safety info that may save your life.

The warning decals are a one-time deal issue. They come in a set of four under part number 305-181 (10000). Source of supply is AEG.





Circle off the hose to replace the hose never did work. Do it in with your LP-810-8000-1 or LP-810-8000-2 air compressor.

If the drive-belt guard is sticking into the alternator tube, get the tube out of

the way. It's as simple as that.

Remember the rule as you don't have any more rubbing, chafing or rattle caused by the vibrator belt guard. Course, you never operate an air compressor with the belt guard off.



TOSS THE PULLER



Before using an electrical device with your fuse puller and use light F04 #120-110-9-118 . . . stop, look and examine. If the puller was made by Ford Fuse or Midway Electric — watch it! The insulation on the lead with the clip pulls back leaving a naked wire — making things ripe for a shocking time. Either tape the lead or replace the puller with a new model made by Superior Fuse that's never being tested under the name F04.

POSITIVE GROUND



ARE YOU
POSITIVE?



I'M
POSITIVE



I'M
POSITIVE!

The engines in the whole group of 45-KW 400-Hz generators listed under LCN (2742) have a 24-volt system with a positive ground polarity.

When looking up the 11-volt bus wires on any of these generators, connect the positive cable to ground. The generators are:

General & General Models 2650B,
2610B and 2150B

Cummins Models JNC-4-601-45 and
J-4-6-41

Consolidated Diesel Model D10, 4000

Hollingsworth Model J425-45A

Hamminggear Model 400A



NEW ONES ARE TRICKY



USE THE 10'
HOOD LIFT ROD

It's what you might call a wrap-off. The price you pay for getting that brand-new gas-engine-driven generator is a little extra cost while you break her in.

One of the big things you don't know about that new piece is how much oil that's going to consume while her piston rings get broken in.

So, until you learn her habits and oil dies, slip her the dipstick hourly and add oil accordingly.

When she gets all broken in you can go by the 10-hour rule.

AND 10-4000 LINES...

LET THEM PASS SOME BY



Some stored tools need tending and some don't.

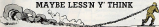
The ones on the 4000-lb Hyvac 540CP (Army Model M551 201) turbidite fall in the do-no-work tending class. They're the sealed type with permanent lubrication and are not equipped with hose fittings.

Although LEI 10-5000-007 1.3.1 (May 89) shows they're to be sealed—pass 'em by.



HOW MUCH FOR A LINE...?

MAYBE LESSN Y THINK



Dear Hell Chief,

Steel-type chains on roller cones, cable rakes, and generator pans are always breaking or letting the rope or lif' get hot. Gamma and gamma PW's never give chain 500', so we average for a better shot.

ENC. 1, 1, PW.

Dear Sergeant J. L. W.,

You, verify—chains are built heavier, and are dependable items authorized under 2B 700-78 and listed in Red Gas C-8000-11-A. But do pick a manager eye like the flat link illustration (LEI) which is only 1 case a box under P/N 08-10-261.5121. On the real eye illustration (LEI), P/N 08-10-171.0521 give you 500 lbs for \$1.45.

Rebuilding chains is cheap, and it pays to get every link over.



Handwritten signature: J. L. W.

THE BOTTLE-NECK BUSTER

That's right. No more confusion on who does what on requesting and buying your supplies.

AR 120.7 (App 70), Procuring, Control, and Technical File Procedures, will



the correct straight for you and all. It gives you AR's on requesting all supplies — TOOLS/MTOO equipment, CTR, BR, PLE, Arings, non-mech, non-PDF's, and construction supplies. And it tells your supply support units how to handle all your requests — wherever your problems may be with publications, item identification, authorization, etc.

The AR also introduces you to the use of Document Identifier Codes (DIC's) in block 1 of your DA Form 2700 or



quote. The DIC's spell out whether your request is routine, or whether it's carrying on supplies that which means you don't have all the identification or authorization info you need, and supply



AR 120.7

AR 120.7

AR 120.7

AR 120.7

AR 120.7

AR 120.7

AR 120.7

AR 120.7

suggest when you special help with the request.

The AR's also spells out the advantages of using Advice Codes to speed-up your supplies. These codes go in block 20 of your request, when you want to get supply support from instruction on specific requests.

You can borrow through the supply support section of the AR — so you'll know how your requests are filled. But, your important SOP is in the AR's parts 1, 4 and 5. The implementing SOP on making use to repair parts requests is set up in a flow chart in the AR's Fig 1.



Making out a request for other items is covered in a flow chart in Fig 2.

THE DIC'S
The DIC you use is column 1 of your 2700 depends on where you are, and what your request covers. For example:

- AAA — says you're overseas and the request has an PIN.
- AAA — You're home, but you're using emergency items.
- AAA — Is the 2700's with PIN's, when you're overseas.
- AAA — For requests with emergency data when you're over there.

The DIC's are listed in App 5, AR 120.11. The Advice Codes are in App 4.

440HA CIRCLE RELIEF



Step lively... The circle answer gets assembly on your 440HA final grades may need relief right now.

Check out the new feature of the relief valve.

Look at it straight in the eye to see if the small hole is open.



If it's clogged or partially open, lot of pressure can build up in the gear assembly.

Next thing you know an oil seal blows and a loose gear or a drive gear goes to pot.

So, keep it clean as a whistle, man.

"REPORTABLE" ITEMS



Dear Staff Members,

How can we tell which equipment items are "reportable" and which are not? Everybody has a different answer.

AR 117-1

DA FORM 38-750

Does the grant M. L. R. and A. P. R.

You might say with accuracy that there are as many lists of "reportable" equipment items as there are reports. You have to read the rules for each report.

For DA Form 2405, Personnel, look right up in page 1-6c and Appendix C of TM 38-750. The Appendix lists "reportable" items either with an X after the specific item or opposite the ICC and generic nomenclatures. If the X is opposite the ICC and generic nomenclatures, part Dc of the Appendix says "all corresponding makes and models" are reportable whether listed or not.

For DA Form 3715 look upland, basic rules are in page D-1, Appendix D, of AR 230-1, and in Change 1. You



get the list of reportables from AR 700-20. Comparable info for DA Form 2411, Reserve Unit Readiness, is found in page D-1, Appendix D, AR 150-6 and in SR 700-20.

Equipment reportable under AR 713-1 also is listed in SR 700-20. But the list is longer (including items with ICC's 1, 2, 3 and 4). Guidelines are in page 1-6f, AR 713-1.

It don't say to put all your "reportables" in 3 books.

DEAR CONNE (Or BRENNE): I would like PG Magazine to run an article about (describe your organizational maintenance problem):

I am in _____ CONNE: _____ SEN: _____ KENNEDY: _____ LANGE: _____ OTHER: _____

*Turn this card out
and tell us what
you want to see
in PG.*



ALL INFORMATION ON THIS CARD

PS MAGAZINE
FORT KNOX
KENTUCKY 40121

OFFICIAL BUSINESS

POSTAGE WILL BE PAID BY ADDRESSEE

PS MAGAZINE
FORT KNOX
KENTUCKY 40121

*Turn this card out
and tell us what
you want to see
in PS.*



Coville's
MFI Minis



Ways To Save

Here's the procedure, steps and materials used on your MFI truck.

Use it and follow it with double, P200-2010-2021-2028, reaching the front bumper (or under rear bumper).

To lift, take out pin, P201 (215-415-4484), and use it to fasten the shoulder to the tube (in pairs) under bracket, 10, P201 (200-414-2079).

Trailer Brake Cable

Here's how you order a handbrake cable for your M101 A1 or M110A1 tractor trailer — ask for it by P201-2020-2021-2028, then the cable lined with Part No. 100000000 in Ch 1 (Part 70), P201-2020-2021-147.

A To What

Head out your TR 100-001-1 (page 71) and check Article 2-18. This tells you how to fit the hitch-hinge setup on your M101 cargo carrier so the cargo does not fly loose off so easy. There's help keep from falling up the hill — and it can save somebody from getting a heated leg, too, because that does not come down with a halfway wallop if both sides are attached at the same time.

Head Off Big Bumps!

Anything your kind is parked for working — for loading, discharging, emptying with vacuum or suction, sipping and hydrating. Total replacement — it's got to be grounded. That's the word in Ch 2 (Part 70) to TR 100-004-20-12/1 on general maintenance . . . page 1-12.

Annual Indicator Don't Forget!

The annual indicator points on all units of M101, M200 and M211 without indicator can be replaced. That's why M200 9-0000-000-00/1 (Part 71) says to get a warning device, P201 (200-000-0004), on the annual indicator so nobody will get hurt.

Split To What Goes

Check Item 1, Fig 14, page 21, TR 1-0000-204-00P (Ch 14), location, P201 100000000. Now P201 (200-000-0000) brings you the bracket (that big piece on the left in the picture). And P201 2000-000-0000 is for the back part. Usually the part needs replacing more often than the bracket. This goes for all M110 series, most carriers.

**Would You Stake Your Life ^{and} on
the Condition of Your Equipment?**



**OH NO
YOU
DON'T!**

YOU GOTTA
HAVE THAT 'OL
SF46 (OPERATING
INSTRUCTIONS)
TO DRIVE
THIS TRUCK...

... AND THAT MEANS
YOU SHOULD BE UP
ON ALL THE POOP IN

TM 21-305
(WITH GI ANDZ)