

Issue 208

**PS**

WFO Series  
March

# THE PREVENTIVE MAINTENANCE MONTHLY

HEY GUARDS!  
HOLD 'EM OFF  
TIL I DO THIS  
**BEFORE-  
OPERATIONS**  
MAINTENANCE!

WAL EARS



# WHERE, OH, WHERE DID YOUR P.L.L. MAN GO?

There's been a big squawk in a lotta outfit locations as many men who don't know supply get assigned to repair parts supply jobs.

Maybe you've been wondering why you've been having such a rough time getting repair parts to keep your equipment maintained. It could be just what was said. No trained repair parts P.L.L. supply men.

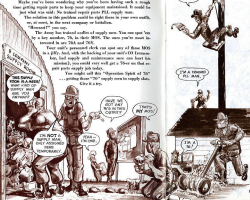
The solution to this problem could be right there in your own outfit, or, at least, in the next company or battalion.

"Hassard?" you say.

The Army has trained cadres of supply men. You can spot 'em by a key number, 74, in their MOS. The ones you're most interested in are 76A and 76B.

Your unit's personnel clerk can spot any of these MOS in a jiffy. And, with the backing of your unit's CG (Commander), lead supply and maintenance men can beat the mission. In addition, you could very well get a 10-er on that repair parts supply job today.

You might call this "Operation Spirit of '50" ... getting those "50" supply men to supply chain. Give it a try.





THE PERSONNEL SOURCEBOOK  
 NUMBER 100, 1000, 10000  
 MAY 1970 ISSUE

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Get your share of Personnel Sourcebook May 1970 Issue



CHECK OUT YOUR TRUCK ...

# BY THE NUMBERS...

THIS MAY BE THE LAST OF YOURS TO SEE. PULLING A 44-TON OVERHAUL, COLLECTOR AND SALES THE PRO...



THESE ARE THE BEST OF THE BEST...  
A SPECIAL GROUP OF THE MOST POWERFUL...  
OF THE WORLD...  
THESE ARE THE BEST OF THE BEST...  
A SPECIAL GROUP OF THE MOST POWERFUL...  
OF THE WORLD...



## BEFORE OPERATION

Front of Vehicle Checks

**1C**

**TIRE & EQUIPMENT:** Start at the left front of your vehicle. Make sure you have all the body assigned to the vehicle and the operator's station. If the vehicle is required to have a fire extinguisher, make sure it's in good, serviceable, and mounted correctly. Fill out top of O&A Form 2104, but leave off the date and signature.



**1C**

**1. DAMAGE:** At the front of the vehicle, check these items for damage:

**a. Front:** Bump, splits, rust spots, missing or loose nuts and bolts?

**b. Grill:** Breaks, missing or loose nuts and bolts?

**c. Radiator:** Leaks? Bent or punctured tubes? Restrictions in the radiator area?

**d. Lights:** Cracked/lenses, loose mounting, dim? All lights secure?

**e. Bumper:** Bends, broken cables, loose or missing nuts and bolts? Any spots need painting?

**f. Hood:** Bends, cracks, missing or loose bolts? Any spots require repair or paint?



**g. Airline connections:** Tension caps tight in place? Connections damaged?



**1C DAMAGE:** On the ground or underside of vehicle!

**2C TIRTS AND WHEELS:** Are tires at the FULL mark? Has your "flat" marker in indicator (over the end of "full")? Check, loose, or broken water hoses? Loose parts? Grease or leaking fuel at all joints? Authority reported on vehicle 84 Penn 2008 (1) the national engine oil check procedure, see PG 200, Page 54, or 78 750-888-1 (but 98, Article 340)



**1C DAMAGE:** Inspect the right side of your vehicle for any damage which might have occurred after the vehicle was parked the right before. You should include such items as broken windows, dents, scratches, etc.

**2C TIRES AND WHEELS:** Make sure tires are inflated. On vehicles equipped with flats, use a bag wrench (one that fits on inflated) Make sure all wheel nuts are tight and none missing.



**1C FUEL CAP:** Check for fuel leaks.

**1C DAMAGE:** Look for leaks on the ground and underside of vehicle. Pay particular attention to inside of wheels, around transmission, transfer case, axles, and differentials.



**1C DAMAGE:** Look for any damage to tail-pipe, rear lights, heater connections, fan belt connections.



**1C AIR HOSE CONNECTIONS:** Check for any damage to connections, and see that dummy couplings are in place. If the entire is connected to a ball, make sure all lines are connected right.



### Left Side

Remove Right Side



### Right Side



SET IT AGAIN!



ADJUST WITH THE TREAD!

**CLUTCH PEDAL ADJUSTMENT:** Use it when it's enough free travel. Free pedal travel is the movement of the clutch pedal downward before pressure increases and the clutch starts to disengage. All clutch adjustment checks are extremely sensitive and should be made by depressing the clutch pedal by hand, not with the foot.

Clutch pedal free travel must be no less than

1/2 inch (12.7 mm) — for 4-cylinder 194-210 cc (4-cyl) eng. alt., page 1-44	1 1/2 inches
1/2 inch (12.7 mm) — for 4-cylinder 210-230 cc (4-cyl) eng. alt.	1 inch
1/2 inch (12.7 mm) — for 4-cylinder 230-250 cc (4-cyl) eng. alt.	3/4 inch
1/2 inch (12.7 mm) — for 4-cylinder 250-270 cc (4-cyl) eng. alt.	1/2 inch
1 inch (25.4 mm) — for 4-cylinder 270-310 cc (4-cyl) eng. alt.	3/4 inch
1 1/2 inch (38.1 mm) — for 4-cylinder 310-340 cc (4-cyl) eng. alt.	1 inch

### Start Engine

**5C. ENGINE NOISE:** The engine of a fuel injector has "tick" or "pop" noises and check under the hood of vehicle. If you hear any unusual noises, turn off the engine immediately, and call your supervisor. If all operations and indicate pressure within a few seconds, stop the engine, and call your supervisor.



**5C. ENGINE CONTROLS:** Check engine controls, including the accelerator, throttle, and choke, to see that they are functioning properly.

**5C. INSTRUMENT CHECK:** After the engine has been started up by using for approximately 3 minutes, the instruments may be checked as follows:



**1. Oil Pressure:** Oil pressure — when engine is idling — should register not less than 10 points. Pressure indicates engine oil pump is working. But, remember, oil pressure does not mean the machine is full. Pressure readings may go up or down as engine speed is increased or decreased, but a sudden drop or varied change of pressure indicates trouble. Stop the engine and find out what's causing it.

**2. Battery-Charging Indicator:** With motor ON (engine not running), needle should register 1/3 up in the yellow panel with engine running at high RPM (about 1,500 RPM), needle should register 1/3 up in the green panel of the dial.

**3. Tachometer:** Tachometer should be registering the RPM of the engine.

**4. Air Brake Pressure (if applicable):** This gauge should indicate the pressure at which the brakes will operate effectively. 100 to 105 PSI for 2 1/2 and 3 ton trucks.

**5. Fuel Gage:** Fuel gage should register full if the ground operator starts fuel after operation check.

**6. Temperature Gage:** Normal range is from 160 to 200 degrees.

## 6 SAFETY DEVICES

ALWAYS WEAR YOUR SEAT BELT AND SAFETY BELTLOCK.



**a. Air Pressure Warning Beacon:** This beacon is a low pressure warning device and will buzz until your operating pressure reaches 60 PSI. Do not move your vehicle until you have operating pressure, and the warning beacon has stopped.

**b. Lights:** Make sure they're all burning, both high and low beams, and that tail and stop lights are operating.



**c. Mirrors:** Make sure the mirrors are not damaged. Adjust for driving.



**d. Windshield Wipers:** Make sure blades are in good condition and wipers operate.



**e. Bump:** Make sure it flows.



**7 DUMP HOIST (if applicable):** Raise and lower the dump body to make sure it will operate. Check for leaks.



## 8 ACCIDENT REPORT AND IDENTIFICATION FORMS

Make sure you have Accident Report and Identification Form in the glove compartment (Old Form 91 and OOT Form 518).



STOP! STOP! STOP! THE ACCIDENT REPORT WORKS IN 15 MINUTES. DON'T WASTE YOUR TIME!

## DURING OPERATION

There is no set time for making the starting operation checks; however, they should be made periodically during the day, as necessary.

### Wife bring

**2. UNUSUAL NOISES.** Keep a sharp ear for any unusual noises in the engine, clutch, transmission, transfer case, drive shaft and rear end. An unusual noise is any noise you do not normally hear during operation.

**1. BRAKE ADJUSTMENTS.** Make sure all wheels are braking equally. Notice any loss of pressure in the pedal when you apply the brakes.

**3. STEERING.** Be sure there's not too much free play in your steering wheel. Notice any hard steering, wheel wobble, or wandering of your vehicle from side to side. If you think something is wrong, stop and check.

**4. CLUTCH ADJUSTMENT.** There should be no slipping or chatter when it starts to engage. Be sure you do not "ride" the clutch. Keep your foot off that pedal!

**5. ENGINE OPERATION.** Be sure your engine operates smoothly at all times. Listen for any knocks, brake knock or gas knock. Make sure your engine is firing on all cylinders and is getting gas properly. Report any malfunctions.

**6. INSTRUMENTS.** Instrument check should be continuous through the day. A casual glance at the dashboard will tell you when your vehicle is operating properly. Instruments to check include oil pressure, fuel gage, tachometer, fuel, oil pressure, temperature and speedometer gauges.





HEY, AIN'T YOU A BRIGHT BOSS LEANING?



Left Side

**1C WHEELS:** Examine leaks on the ground and underside of vehicle.

**2C WASH AN OILY:** Open petcocks to allow accumulated water to blow out. Shut off petcocks when air leaks clear of water.



**3C FULL TANK:** Check for fuel gasket or cap.



**4C TIRES AND NUTS:** Make sure tires are correctly inflated by looking at single tires and twisting hubs with a leg wrench. Make sure all wheel lug nuts are in place and tight.



**5C DRIVE SHAFT AND UNIVERSAL:** Look for excess play, loose nuts and bolts, and check lubrication.



**6C DAMAGE:** Check and scratch down metal spots that need painting.



**6A SPINDLE SHOCKS, AND THROTTLE HOSE:** Inspect springs for broken leaves and secure mountings. Make sure shock absorbers are assembled properly. Look at fenders not only for wear and make sure they're secure.



**1C STEERING MECHANISM:** Leaks? Steering arms and tie-rods tight? Look in steering knuckle?

I DON'T KNOW! I JUST GOT OUT OF THE TRUCK AND STUMBLED THE DOOR.



**2C CHECK ON MISSING BOLTS:** Look over entire vehicle, including body, valves, frame, etc. for any loose or missing bolts and nuts.



**1C DAMAGE:** Lights, reflectors, tailgates, and fenders.

**2C LEAKS:** Inspect leaks on the ground or the rear differential, and find assembly (steering knuckle ends).

**3C AIR CONNECTIONS:** Make sure they are not damaged and battery clamps are in place.

**4C CHECK ON MISSING NUTS OR BOLTS:** Missing nuts or bolts on the tailgate, mud flaps, dump body, and underbrings.



WHY'S IT LEAKING?

Right Side

OH, DON'T TALK NAILS!



Right for: how wide side cargo for...

**1C SAFETY:** Hold down connections tight! Look at filler caps for cracks and make sure vent tubes aren't plugged up. Be sure electrolyte level is at least 1/2 inch over the plates (about 3/8 inch). Terminal connections loose? Wipe off any dirt or contamination that may be on top of the batteries. Make sure a thin coat of lubricant is applied to the terminals to prevent corrosion, and be sure battery bars aren't bent back or tight.





**1. DAMAGE:** Look over front fenders, grill, hood and bumper for dents, rust spots, broken wires, missing bolts and nuts.

**2. STEERING LINKAGE:** Look for loose tie rod ends and excessive drag link play.



**3. BOLTS:** Inspect bolts on the ground and underside of vehicle.



**4. LOOK INTO AND UNDER:** Run your eyes over all remaining bolts, including those on the fender and body, for loose or missing items.



**5. TIRE JOINTS:** Look for torn or bulging treads, or rusty and worn ball joints, tie rods on vehicle.

**6. REPORT VEHICLE CHECKED AND SEEN:** Report to your supervisor that your vehicle has been thoroughly checked, is ready for the following day's operation and has been secured for the night.

## CHECK LIST BEFORE OPERATION

**FRONT OF VEHICLE**

1. Check all equipment
2. Storage
3. Lights
4. Oil and Water level



**LEFT SIDE**

1. Storage
2. Drive and Wheels
3. Lights
4. Tighten Gas Cap



**RIGHT SIDE**

1. Storage
2. Drive and Wheels
3. Lights
4. Tighten Gas Cap



**IN CAB**

1. Brake Pedal Adjustment
2. Clutch Pedal Adjustment
3. Steering/Wipers
4. Igniter/Controls
5. Instrument Check
  - a. Oil Pressure
6. Start Gas Indicator
7. Tachometer



**REAR**

1. Storage
2. Air Flow Connections
3. Lights



3. Fuel Gauge
4. Oil Brake Pressure
5. Temperature Gauge



6. Safety Devices
  - a. Oil Pressure Warning Device
  - b. Lights
  - c. Mirrors
7. Windshield Wipers
  - a. Wiper
8. Heavy Duty
9. Standard Report and Identification Forms
10. Report Vehicle Checked and Ready for Operation

## DURING OPERATION CHECK

**WHILE DRIVING**

1. Brake Adjustment
2. Clutch Adjustment
3. Instruments
  - a. Oil Pressure
  - b. Air Flow Indicator
  - c. Tachometer
4. Fuel Gauge
5. Air Brake Pressure
6. Temperature Gauge
7. Speedometer



4. Ground Noise
5. Steering
6. Engine Operation

**AT REST**

1. Lights
2. Drive and Wheels
3. Drive and Fuel Gauges
4. Oil, Water, and Fuel Levels




## AFTER OPERATION CHECK



**IN CAB**

1. Start Engine
  - a. Oil Pressure Warning Device
  - b. Lights
  - c. Mirrors
  - d. Windshield Wipers
  - e. Horn
2. Brake Check
  - a. Lights
  - b. Look for Loose Items



**REAR**

1. Storage
2. Lights
3. Air Connections
4. Loose or Missing Bolts



**LEFT SIDE**

1. Drive for Tires
2. Loose Gas Cap
3. Storage
4. Drive and Wheels
5. Springs, Shocks and Suspension
6. Drive/Wheels and Instruments
7. Lights
8. Steering Mechanism
9. Loose or Missing Bolts
10. Operating Gauges



**RIGHT SIDE**

1. Storage
2. Drive and Wheels
3. Springs, Shocks and Suspension
4. Lights
5. Loose or Missing Bolts
6. Steering
7. Loose Gas Cap



**FRONT**

1. Storage
2. Lights
3. Steering Collage
4. Upper Bolt and Bolts
5. C/FI Gauges
6. Report Vehicle Checked and Secured




## BELOW 50-MPH FOR M131

It's recommended that you keep the top speed for your M131-series 1 1/2-ton truck under 50-MPH for the first 1,000 miles of operation. This's the proper break-in of drive line components and service brakes.

Whether new or already broken in, never torture your quarter-tonner with:

— OVER THE HORN FOR THE ROAD BEHIND



— SHIFTING GEAR WHEN SHIFTING



— BRAGGING ABOUT



— DRIVING THE ENGINE ALONE TO BRAG ABOUT WITH OTHER DRIVERS



— STOPPING FOR THE ENJOYMENT OF STOPPING STOPPING



## M131/M131A1 WEIGHT CLASS

Consult about the weight classification for M131/M131A1 vehicles, including the M131A1's 11 ... . See FM 3-20 (May 68) copies in Ch 1 (Apr 68), Table IV-1, page AIV-2. TM 9-2000-27-10 will get this new word.



## SWITCHIN' TIME



There's a new switch nut for G74-series 1-ton diesel and mechanical trucks and for class G74-series 3-1/2-ton mechanical trucks with the ED 485-1 engine (M131A1 only). Ask for switch, nut, FM 2000-133-9620 the next time you order one. It replaces Part No. FM 2000-133-1001.

## EXHAUST CLAMP

Have you got the new vertical exhaust stack on your M131A1 truck (same for other straight diesel 1-tonners)? The exhaust pipe-to-stack-hanger clamp assembly is FM 2000-072-3005—same as used on the older exhaust system—listed in TM 9-2120-11-20P w/Ch 1 and Ch 2 (Apr 67).

LET'S GO  
WITH THE  
MILK  
SUCTION



## FILTER HEAD HAZARD



Go you got a little leak around the nut on top of the primary fuel filter head of your 3000-1 tank ... or maybe it's on your 3000, 3000-1 or 3100-1 tank or 4000, or 3000-200.

The thing you need to do is try to stop the leak by tightening up real hard on the tapered pipe nut on FM 070-041-315.

What'll happen, you're sure to crack the filter head. Then you've got real trouble.

The way to stop the leak is with a little thread seal grease using your

ground FM 000-000-1120. Put it on the threads of the pipe nut and fuel line and then carefully tighten the connection to anything between 120-180 lbs-ft torque.



## MTC RANGE FINDER REMINDER

Here's a reminder on the MTC range finder in your 3000/3000-1 tank: Keep your "conceivable" hands off the RZ and battery leads unless you know what you're doing.

The dope on using 'em right is on page 3-10 of Ch 8, Chap. 60 of your TM 9-2090-201-10.

The remote range finder operation leaves the rail covers in place, or you'll get your "conceivable" hands out of trouble.



## FILTER UNITS FOR CV'S



If your requests for gas particulate filter units for your combat vehicles have been knocking back, here's why—

Filter units for CV's are now called installed equipment. The units will eventually be pulled out of your TOR and added to the vehicle's DEL's.

CV's can get filter units in 1 of 3 ways:

1. Installed by MPO on support level
2. Installed by the manufacturer
3. Installed by depot

Even though your vehicle's TM may already cover FM 56F as a filter unit like Ch 18, TM 9-2380-224-28, for example, filter units have been OK'd for the following vehicles only:

CV	ITEM NO	DTI NO
M551 and M561 tanks	M551-p/M561	9-2380-224-28/1
M551 APC	M551-p/M561	9-2380-224-28/1
M561 tank	M 561	9-2380-224-28/23
M53 recovery vehicle	M53	9-2380-224-28/1



The M551 Sheridan gets the M561 filter unit, and the M73 combat engineer vehicle gets the M551 filter unit. Both are installed by the manufacturer.

Other CV's will get their filter units installed as their MPO's are published. So keep an eye out for the filter unit OK for your combat vehicles. If your equipment is already under-level a filter unit, and the MPO hasn't been completed, give your support center a Del Form 2807 work request.

Make a note somewhere handy—a request for a filter unit must provide exception data. In addition to identifying the MPO, the Del Form 2807 must also

for the manufacturer, model and manufacturer's serial number (not the USA number) for the vehicle equipped.

Remember, you installed the floor mats with the vehicle all the way back in transit.

### THE MATS

On your request for mats to go with the floor units installed in your CV's, you must provide complete data as to the vehicle's model number and the type of mats it uses (FM or AM).

The M14 and M241 tank mats can be used with FM units only.



The M144 and M143 tank mats work with the FM unit.



The M1442 mat, however, can be used with the FM rollers when its roller is changed like it says in Ch. 2, TM 5-4108-125-15, para 58.1. After the roller swap it becomes an M24 mat.

## TANK WHEEL TORQUE

Without wheels your tank wheels won't roll.

So why is that news?

Because trackbeds and compensating idler wheels for some tanks are in real short supply.

So what can you do about it?

You can get the longest possible life out of your trackbeds and compensating idlers by making sure all wheel retaining nuts are torqued as tight as the TM says.

M14, M144 and M143 tank — 20 to 25 pound foot torque on wheel retaining nuts.

M144 and M1442 tank — 40-45 pound foot torque.

M1442 tank — 10-15 pound foot.



Besides keeping your wheel retaining nuts tight, you can help the supply problem by being a wheelbar dealer and carrying in to supply all non-replaceable-quantity wheels on the storage list for depot rebuild.

FIREPOWER

# RAMMER 105-MM



You can ram your shell into the next world with the wrong rammer—exercise for your 105-MM howitzer.

It's easy enough to do because at least 5 different wrong models (some of them very dangerous) are now in the field.

With the wrong rammer a tip of the ramming plate can cut off the primer.

So, check all the rammers in your units and if you've got any that don't shape up, ship 'em out. Here's how you check:

Look for the part number (or the extension).

Howitzer Model	Rammer Part Number
M101 or M101A1	136A1P
M102 or M104	132704M



Any rammer that can't pass the part number test shouldn't be used in service, but even if the part number is right the rammer could still be wrong.

Some 2 or 5 different models were listed under the same part number. So check both the fulcrum length and the distance between the ramming plates. You have the right rammer only if everything matches up like this . . .

Howitzer Model	Part Number	Fulcrum Length	Distance between ramming plates
M101 or M101A1	136A1P	17 1/2 inches	7 1/2 inches
M102 or M104	132704M	17 1/2 inches	7 1/2 inches

# ROUND-UP HOWITZERS



Even with the right rammer you're still not home free and clear. If it's loaded, but not set to sleep or banged up it's dangerous, so here it is for a new one. Here's the FOY's and order by for the rammer:

M101 or M101A1 (FOY 493-704-070)	0-1 to 10-1-001
M102 (FOY 493-017-001)	10-1-001-004-01
M104 (FOY 493-017-001)	0-1 to 10-1-001-017-01

To see you have the right rammer, and it's in good condition, You could still blow things up by using it upside down.

It's easy to figure out which is upside down and which is right side up. Just put the rammer over the breech (point to the rounded edges of the ramming plate) will make contact with the cartridge case.

This will happen with the M101 and M101A1 if you put the fulcrum into the breechblock guides in the breech ring with the tips of the rammer pointing to the right.



With the M102 or M104 you position the end of the rammer tips are pointing straight downwards.



The fulcrum should slide freely in the guides. If you put it in right but it fits so loosely it could slip in the guides in use, wear or damaged it or you get a new one.

You don't need to use a lot of muscle. If you can't see the cartridge really, take it out and put in a new one.

Suppose you need a rammer but you turned in your old one and you don't have the new one yet . . . What to do?

You can sometimes use a round that won't chamber when you fire load it by using the open end of a fired cartridge case as a rammer.

### LAST DOLLAR



To get out an unfired round stuck in the chamber, use the ball rammer on the end of the vertical cleaning staff, and gently poke it out.

**WARNING:** Cartridges, especially in lines that have been damaged from a weapon by not being used to its end again, fit a chamber even less closely and better in the amount that may have made the chamber too easy and the rammer might have damaged the line.

If the round has been fired, poke out the empty cartridge with the cleaning staff without the ball rammer on the end.

There are field expedients to be used only until you get the right rammer.

## CARRIAGE, BREECH OR CONTROL?

**Dear Half-Blood,  
Some times!  
Americans — like  
the M16A1 —**

**have serial numbers on the lower block and the carriage  
for some that apply to the complete weapon.**

SO WHAT NUMBER DO WE  
USE ON LOGS, RECORDS, OR  
ON DA FORM 3407?



**Dear Captain J. E.,**

For the M16A1 and other firearms that don't have serial numbers for the complete weapon, use their carriage serial numbers.

The rule in TM 58-750 on use of DA Form 3408-B control numbers doesn't apply to these firearms.

**DR. J. E. J.**





# AUTOFRETTAGE TUBES ARE COMING



A new **M115E** autofrettage tube for your **8000 174-MM SP** gun is the latest round of good news to come in an gunnery circle these days.

This **E3** model will almost double linear tube life by letting you reach **700** effective full-charge rounds between reloads... compared to **350** EPC rounds on the current **M115** tube. So, you don't have to look for tube changes so often.

You'll only be able to tell the difference by the bell shaped marks on the autofrettage tube. But your supply man will know the difference by its **FSN 1025-113-5434** for the complete canon, including all bench components... **FSN 1025-113-5437** for the tube only.



# STICK TO M79 CARTRIDGES

The **M79** grenade launcher's gun designed to fire pyrotechnic cartridges used in the **AN-M8** Very pistol or **AN-M9** hand propellant. Cartridges **AN-M87** thru **AN-M85** are .975-inch smaller in diameter than the 40-MM ones and have no rotating band.

Using other than authorized 40-MM cartridge in the **M79** could damage both you and the launcher.





**WRENCH, HAND** combination, ball joint, 8 in ball end



**FIG 101-101-001**

**WRENCH, HAND** soft-toe ball, 1-in ball end



**FIG 101-101-002**

**WRENCH, FILE, WOOD** 1 in dia, 8 in lg with small file



**FIG 101-101-003**

**WRENCH, FILE, WOOD** 1 1/2 in dia, 10 1/2 in lg with medium



**FIG 101-101-004**

**WRENCH, SOCKET WRENCH** hex die puller pin type, 1/2 in drive end, 1 1/2 in lg pin



**FIG 101-101-005**

**KEY, SOCKET HEAD SCREW** hex type, 1-type ball, 1/2 in x 1/2 in dia ball, 1 1/2 in lg pin



**FIG 101-101-006**

**KEY, SOCKET HEAD SCREW** hex type, 1-type handle, 1/2 in x 1/2 in dia ball, 2 in lg pin



**FIG 101-101-007**

**KEY, SOCKET HEAD SCREW** hex type, 1-type ball, 1/2 in x 1/2 in dia ball, 2 1/2 in lg pin



**FIG 101-101-008**

**KEY, SOCKET HEAD SCREW** hex type, 1-type ball, 1/2 in x 1/2 in dia ball, 2 1/2 in lg pin



**FIG 101-101-009**

**KEY, SOCKET HEAD SCREW** hex type, 1-type ball, 1/2 in x 1/2 in dia ball, 2 1/2 in lg pin



**FIG 101-101-010**

**KEY, SOCKET HEAD SCREW** hex type, 1-type ball, 1/2 in x 1/2 in dia ball, 2 1/2 in lg pin



**FIG 101-101-011**

**KEY, SOCKET HEAD SCREW** hex type, 1-type ball, 1/2 in x 1/2 in dia ball, 2 1/2 in lg pin



**FIG 101-101-012**

**KEY, SOCKET HEAD SCREW** hex type, 1-type ball, 1/2 in x 1/2 in dia ball, 2 1/2 in lg pin



**FIG 101-101-013**

**KEY, WOOD** 1-in dia, pressure ball by ball joint body on end pin, 1 1/2 in bottom dia, 8 in lg with 4-in diameter ball, maximum cap thickness, with holder bracket



**FIG 101-101-014**

**PROCESSES** are finished type, individually keyed, 5000 key changes, 1 1/2 in x 1 1/2 in in ball case, 1/2 in clearance, 2 1/2 in in dia in dia in ball case, maximum, chain and 1 type



**FIG 101-101-015**

**PLIERS** by all sizes, w/ handles, 8 in. long



**PKM 1000-00-0107**

**PLIERS, ENDING, CUTTING**, 4 in. long



**PKM 1000-00-0104**

**PLIERS, ENDING, ENDING (open, w/ handles, 8 1/2 in. long)**



**PKM 1000-00-0108**

**PLIERS, CENTER, GRIND**, 8 1/2 in. dia. at top of tapered pt., 7 1/2 in. dia. at 4 in. from pt.



**PKM 1000-00-0109**

**PLIERS, CENTER, GRIND**, 8 1/2 in. dia. at top of tapered pt., 7 1/2 in. dia. at 4 in., 7 1/2 in. long



**PKM 1000-00-0110**

**PLIERS, DRIVE PIN, RIGHT HAND, 10.50 in. dia., 7 1/2 in. long pt.**



**PKM 1000-00-0111**

**PLIERS, DRIVE PIN, RIGHT HAND, 8.00 in. dia., 8 1/2 in. long pt.**



**PKM 1000-00-0112**

**PLIERS, DRIVE PIN, RIGHT HAND, 8 1/2 in. dia., 10 1/2 in. long pt.**



**PKM 1000-00-0113**

**PLIERS, DRIVE PIN, RIGHT HAND, 7 1/2 in. dia., 7 1/2 in. long pt.**



**PKM 1000-00-0114**

**PLIERS, DRIVE PIN, RIGHT HAND, 8 1/2 in. dia., 8 in. long pt.**



**PKM 1000-00-0115**

**PLIERS SET, DRIVE PIN**, 8 right punches, w/ case



**KEEP THE TIPS FROM RUSTING.**

Drive Pin	Set Size	PKM 1000-00-0116
1/2	1/2	PKM 1000-00-0116
3/8	7/8	PKM 1000-00-0117
1/2	1 1/2	PKM 1000-00-0118
3/4	1 1/2	PKM 1000-00-0119
1	1	PKM 1000-00-0120
1 1/4	1	PKM 1000-00-0121
1 1/2	1	PKM 1000-00-0122
1 3/4	1	PKM 1000-00-0123

**PKM 1000-00-0116**

**SCREW DRIVERS**, 2 1/2 in. w x 1/2 in. dia. at tapered nose, set with handles, 18 in. and longer, 17 in. long



**PKM 1000-00-0124**

**SCREWDRIVERS, CROSS TIP, plastic hd., PKM Size No. 1 tip, 2 in. lg blade, 7 1/2 in. handle w/ offset handle offset**



**PKM 1000-00-0125**

**SCREWDRIVERS, FLAT TIP, plastic hd., 1/2 in. w Blade No. 1 tip, 2 in. lg blade, 7 1/2 in. handle w/ offset handle offset**



**PKM 1000-00-0126**

**SCREWDRIVERS, FLAT TIP, plastic hd., blade 7/8 in. w Blade No. 4 or 1/2 Blade, 7 1/2 in. handle w/ offset handle offset**



**PKM 1000-00-0127**



# JOE'S DOPE

## THE BALLAD OF ORWELL GIGGIT

Man, rock to the tale  
of Orwell Giggit,  
A short-time troop  
who didn't dig it!  
Just sweatin' out  
his thirty days,  
flubbin' the dub  
in fifty ways!  
Hey! hey! hey!  
in fifty ways!  
Gooch, that swingin'  
Giggit, that  
groovy cat...  
It's 'Dance' this and  
'Fudge' that...  
For "goin' home" is  
his only goal  
As he saddles up for  
his last patrol...



PAUL,  
I'M SO SORRY  
I AIN'T EVEN  
GOT TIME FOR  
DINNER WITH  
A GUY WHO  
STITCHES!

WELL,  
GIGGIT,  
YOU'D BETTER  
MAKE THE  
BEST OF  
YOUR  
CONCRETE  
SITTING A  
SHALL WE?  
WELL!



WELL, THE POINT  
I AIN'T GONNA  
NO-PAW...  
I CAN'T...  
THAT THE GUY  
WHO STITCHES  
GUY!

COME ON!

...GUT HERE'S ONE OF THE BEST WAYS TO KEEP YOUR SMALL ARMS READY AND ABLE TO

**LUBING!**

BE WELL OILED

...HE KEEPS HIS WEAPONS OUT OF THE MUCKS AND DIRT THAT

...GET WEAR... A LOT OF THE TIME IN THE PROJECTS, THE WEAPONS SUFFER FROM CRACKING TO THE POINTS



FOR THE BEST FOR YOU-SEE-SEE.

PI Speed Mail call FOR 1-800-555-1234.

CALL 1-800-555-1234 FOR 1-800-555-1234.

**LSA'S**

FOR YOUR SMALL ARMS... WE'VE MADE THIS THE BEST FOR YOUR WEAPONS LIKE YOURS... SEE YOUR WEAPONS THE OLD LSA FOR DETAILS



IN THIS PART OF THE WORLD, IT'S EITHER TOO HOT OR NOT HOT OR TOO HOT... AND... DON'T BOTH ARE... THE RULE

**STOCKS!**



ORDER OR MAIL FOR 1-800-555-1234

FORGET WEARING AND WEARING IS NOT EASY

FORGET GEAR AND SPENDING IS NOT EASY



BE SURE YOU GET THE BEST BEST BARGAIN

DON'T OVER DO IT...

AVAILABLE FOR WEAPONS... LUBING THE STOCK TO IMPROVE... (continued on the next page)



WHEN I GET A PLASTIC STICK

DO THEN YOU LEAVE IT ALONE! YOU SHAKEN DOWN. I WANT TO HEAR EVERY WORD OF THIS...

Now, **CLEANING** NOW! YOU SHALL HAVE MORE SPECIAL CARE OUT HERE BETWEEN DIRT, MUD, BLOOD, CRUD, GREASE AND WHO-KNOWS-WHAT... YOU HAVE A HEAVY-BUILDING JOB!



AFTER EACH FIRING SESSION DO THIS...



USE THE BUSH WITH THE BRUSH

USE THE BUSH WITH SPECIAL STRINGS



IF YOU RUN OUT OF BUSH CLEANER, USE DRY-CLEANING SOLVENT



PLEASE, IF YOU GET PROBLEM, TAKE THE REST OF A BUSHING BUSH!

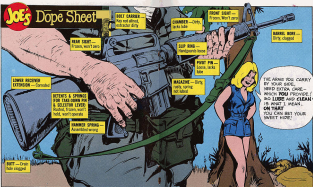
ON THE AGE AND MUST BUSHING FOR CORRUPT BUSHING IS THE BUSH CLEANING!

AND BUSHING PERFECT CLEANING DO NOT GET METAL BUSHING DAY!

HERE, SHOW THIS BUSHING I'M POSTING



# Joe's Dope Sheet



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

NEW CLEANING IS NOT ENOUGH... **PROTECTING** YOUR WEAPONS IS JUST AS IMPORTANT!



**RINSE**

USE WATER WHILE DOWN RANGE UNDER CLEAN SKY

**MUD**

KEEP IT RIGHT AWAY ON

WASHED FROM GEAR IN THE WASH POT!



DISCARDING AND NOT IN BEST SHAPE? USE HOT ... DON'T DRIFT

CONTACT BRINE TO BRINE OR ICE ... AND BRINE IT QUICK!

**SALT AIR?**

KEEP WEAPONS WETTER OIL AND LUBE IT LIGHTLY.



MUDY GEAR IS GOOD ... BUT THE STUP CROCODILE MOUTH ... IS THE SHIT ON THE SHIT (SUCKING) ... IT'S NOT THE BEST

DON'T OVERLOOK **WEBBING!**



SMALL CREWS ARE NOT THE BEST

CRUISE OR: WOULD BE DIFFICULT IN FOOD AND DRINKING

BEYOND IS SERVING WITHOUT YOU CAN



DON'T POUR SAND ...

**ALWAYS**  
ALSO NEEDS  
SPECIAL HANDLING!

DON'T OPEN  
UP! NO TIPS  
WITH THIS  
CONTAINER  
TO THEM  
BEFORE  
USE THE

I PUT THESE  
MAGNETS IN  
A PLASTIC BAG  
FOR EASY  
USE.

OPEN BAG  
OF SAND?  
KEEP IN  
CONTAINER

KEEP  
BAG  
— KEEP  
IN  
CONT  
FOR  
USE

FOR 800-888-8888

**PROTECT** YOUR  
MAGNETS WITH PLASTIC  
CONTAINER BAG.  
FOR 800-888-8888  
SOLUTIONS TO  
PROBLEMS.

FIRST  
BE SURE  
YOUR BAG'S  
SEALED AND  
CLOSED

THEN  
TIP IT IN SAND GLOBE  
THE BAG WITH A RUBBER BAND

LASTLY ...  
IN THE WASTELAND  
WASTELAND, THERE,  
REMOVE A RUBBER BAND  
... SO OPEN  
THE BAG AND  
A GLOBE AND  
LET IT DRY  
OUT.

DON'T MESS AROUND  
WITH SAND. EACH  
MAGNET BEHAVES  
DIFFERENTLY. IT  
WON'T HOLD  
FIT ANYTHING!

I KNOW, IT'S  
BORING AND I DON'T  
SPEAK ENGLISH WITH ANY  
OF THE LAM PORN TOPS  
I HAVE. THAT'S MY  
LADY FRIEND!



So Oswald Giggitt  
trod the ground  
on that last patrol  
from his compound!  
But, it happened on that  
hot, wet day —  
they hit an ambush  
on their way.  
And the shoot-out that  
of course took place  
found our troop Giggitt  
a sorry case,  
His weapon broke — 'twas  
rust bedeviled!  
The firing pin he'd  
never checked!  
The muzzle blocked by  
raked-up mud!  
The whole dang piece plumb  
loaded with crud!  
Just a couple weeks of  
plain neglect  
was enough to see his  
dregs wrecked!  
It's six months since  
Giggitt was found —  
he's still short-time  
— but still around!



FOR, NAME AND QUANTITY THE...

GENERAL SUPPLY

## WHAT GOES THERE

BEFORE YOU PACK  
AND SHIP YOUR EQUIPMENT  
MADE SURE IT'S CLEANED  
AND SPELLED OUT IN  
THE TAG - TAG.



When equipment, components and parts are in shipping containers and under wraps, each item's got to be identified — not least about it.

At every check-point to transit somebody needs to know "What goes there?" So... mark it before you move it.

If you rely heavily on a specific supplier or distributor, independent advice — either in advance — you may need a look at the rules in 196 of the TSI codes. At least they're appearing in the June 2004, and the updates to EN 12170 CEN and all also has a lot identifying you by type of equipment covered.

Supplies must assembly—up front and back to repair or storage depot—only if they're easy to identify. Even quality-to-quantity or keyway, some items are hard to recognize. When boxed or inside other containers, they've got to be marked well:

1. EA
1. One container or description.
1. Quantity to pack, its use, for issue, job, you, draw, part and name.

Mark this info—in 1-2-3 order—in all shipping containers, using either 4—

Search for containers job or issue, wood and cardboard boxes and cartons.



FSN 2530-705-8039  
COVER PLATE  
1 EA

Tag for bags, bins, bundles or other containers where labels and marks are hard to read. 4—

Label for containers like cartons and bins or plastic wrapped.



### what to mark

Identification markings are needed on:

1. All bags, cartons and packing envelopes or sacks that go inside shipping containers.



1. All shipping containers (board, wood and metal) except COMEX, MILVAN and SEAVAN. No visible identification is needed on COMEX, MILVAN and SEAVAN containers—just on the items you put in them.



3. All unpacked items—except vehicles and other major items that can be readily identified by their plates.



### STEP 3. MARK OR TAG

Use the stencil, label or tag that best fits the container, write on it and attach the identity of the item as in steps 1 and 2.



**STENCIL**, with black ink, applied by spray, roller or brush. For slick surfaces like metal or glass, use ink in PSN 7510-110-0000. For porous or grainy surfaces like wood or fiberboard, use PSN 7510-101-0011.

For items shipped unloaded or uncrated, stencil directly on the item. Use painting suitable paint, PSN 8043-137-8211 (black) or PSN 8043-137-8238 (white).

2530-709-8030  
COVER PLATE  
1 EA.

2530-709-8030  
COVER PLATE  
1 EA.

**TAG** the item if neither a stencil nor a label will do the trick. Use tag, PSN 8135-258-0077, and attach it to the container with the wire that comes with the tag.



### REAP AND RARE

Before you make any new marks on a container, make sure it's ready for marking.

First, check the old markings—if any. If an item is still packed in the container it came in, you may not need to re-pack and re-mark. But be sure this is so.



If you're re-packing items in an old container, be wary. They may have the same name but a different FSM.

When the old container has any markings that don't apply, paint 'em out. Use the heatless lacquer, FSM 8014, 517-3196 or furniture enamel, FSM 8028, 281-0993.

And make sure any surface to be marked has no dirt, oil or grease.

You're ready to mark—but where? There's no fixed rule, but it's best to put the identity on one side, the address on the other.

Markings are better protected on the side than on bottom or top.

#### MISCELLANEOUS MARKING



#### MARKING IN CASE

When material is packed in a cloth-covered box, you can cover the area to be marked with unadorned lacquer, enamel or paint. Then stencil it (after it dries, of course). Or you can use a plain tag attached to an ear for identification. You only need to stencil or tag—not both.



Miscellaneous unpacked items like rods, coils and rods may need a special word. If there's a suitable spot, stencil or label 'em. If not, attach the identification on 2 plain tags. And put the shipping address on a third tag (DD Form 1487-1) or label (DD Form 1487). These 3 items—tag and label—are specially made for military shipments.

#### UNPAINTED CASE

For unadorned cases, with no available marking spots, identity markings can be put on plywood, fiberboard or masonite and nailed to the case. These boards also can provide space for the shipping address.





## PALLETTED LOADS

Palletized loads made up of a number of items get special treatment. Each individual container on the pallet gets its own identification label—plus address labels for the pallet.



INDIVIDUAL LABELS  
ON EACH  
CONTAINER...

...AND SPECIAL  
LABELS ON THE PALLET

If it's a low-stops pallet, with individual containers not visible, identify the group of items with serial number on the outside box.

## BOXING PSN'S IN A BOX

It's OK to mix PSN's in a shipping container — if it's properly packed and marked.

If available, 3 copies of DD Form 1348-1 should be attached to each separate item or container inside the shipping box. Also, each inside item or container should be identified.

Outside, 1 copy of the DD 1348-1 for each item should be placed in a packing list envelope, PSN # 105-108-1581, and attached to the outside container with a protective cover, PSN # 105-108-1260.

Then the outside container gets marked "CONSOLIDATED PACK" — instead of the usual individual item identification.

1 COPY OF DD FORM 1348-1  
FOR EACH ITEM



If DD 1348-1 is not available, identification of the individual items can be made on plain white paper and included in the packing list envelope.





### MARK, TOO

Barrels, drums and pails also get marked (or re-marked) as needed to agree with the contents.



### ENOUGH ROOM

Before you attach an address label or tag to tags going back to "The World," make sure it's completely filled in. All the necessary info should be available—most of it in the message, letter or other direction that told you to move the cargo.

To guard against weather damage—and smudge or rub-out of the information—overcoat the filled-in label IDO 14877 or tag IDO 14877 with solution.

### WHERE YOU SHIP

Check each outgoing container to make sure:

All old markings that don't apply are painted out.

New markings match the contents in IDN, name and quantity.

Markings for packing lists identify contents without need to open the container.



Address info who sent it, who gets it and any necessary intermediate delivery points.

### MARKING MATERIAL



Here's a list of needed marking materials:

Latexes (super hand white), FM 8715-22-2949 0-648.

Latexes (metal hand yellow), FM 8715-22-2951 0-648.

Steel ink, black, FM 7715-111-4000 11-648.

Steel ink, black, FM 7715-111-4001 11-648.

Steel ink, black, FM 7715-111-4002 11-648.

Special white paint, white, FM 8015-22-2958 0-648.

Label solution, FM 8040-220-0425, FM 8040-220-0426, w/FM 8040-220-7073 0-648.

Tags, clipping and stick, FM 8715-220-4917 0-6000.

Trucking list envelope, FM 8715-FM-4241 11-648.

Watercolor, painting list, FM 8715-FM-4242 11-648.

If you're too far in-country to find these items in supply, with a stamped date coming up for that lot let your supervisor know you are on substitute.

## ACCEPT THESE SUBSTITUTES

Felt tip pens that contrast with the container or label for identification marking. Felt tip pens and grease pencils also may be used.



Clear pressure-sensitive tape (acrylic), clear 1/2 in. wide for the adhesive when attaching labels. White or gold color tape also can provide a place for identification markings with felt tip pen or grease pencil.



Plain white paper can substitute for DD (445-1) when making packing lists for a "Consolidated Pack." But make sure the identification info is complete.



Felt or pencil can be used to mark labels if protected by clear pressure-sensitive tape when no other adhesive is used. (Liquid adhesive might smear 'em.)



Clear (see-through) envelopes may be used as covers for identification markings and address — when attached to container.



Nails and tacks may be used to attach labels or tags to containers — instead of adhesive.

When no small brush or roller can be had, a paint brush or wad of cloth dipped in varnish ink or paint can be used for stenciling.

Keep in mind, though, that these ordinary substitutes are substitutes — not to be used when first-choice items are handy or can be ordered in time.

Keep in mind, too, that the markings covered up to now are minimum markings. Some items also may require special handling marks or precautions, including identification of dangerous material (like explosives or sensitive and security-type equipment).

If you need a full check-out on this, get your info on DDL-STD-119, Marking for Shipment and Storage.

The job's better than half done, though, when you can tell at a glance what's inside a crate. Or PDM, name and amount, and what it's going.

# PINPOINT FORMS

HERE'S A "BRICK-TO-UP" 30-DAY PLAN FOR YOUR ON-DEMAND FORMS... WHICH ALSO HELPS-ER IF YOU WANT TO GET ALL THE LATEST REVISIONS AND SUPPLY PARTS. JUST AS SURE YOU'RE GOING TO ORDER THEM ON 7/1!

**EXCEPT FORMS**  
 12-8 (201-48)  
 12-9 (202-80)  
 12-10 (708-88)  
 12-11 (202-44)  
 12-12 (708-88)  
 12-13 (202-44)  
 12-14 (708-88)  
 12-15 (202-44)  
 12-16 (708-88)  
 12-17 (202-44)  
 12-18 (708-88)  
 12-19 (202-44)  
 12-20 (708-88)  
 12-21 (202-44)  
 12-22 (708-88)  
 12-23 (202-44)  
 12-24 (708-88)  
 12-25 (202-44)  
 12-26 (708-88)  
 12-27 (202-44)  
 12-28 (708-88)  
 12-29 (202-44)  
 12-30 (708-88)  
 12-31 (202-44)



84 Form 12-4 (Rev. 75)

**"REVISIONS OF EXISTING FORMS"**  
 (REVISED FORMS AND SUPPLIES)  
 (REVISED FORMS AND SUPPLIES)

After "New Computer Manual" add items

**IMPORTANT**  
 To save the time and trouble of the most expensive items... if there is a blank space in the publication, or the form, or the parts list, then the publication is not for you.

12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31

12-1 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 12-29 12-30 12-31

# Britain

84 Form 12-11 (Rev. 75)

REVISIONS OF EXISTING FORMS AND SUPPLIES

In page 4 after "Air Defense Auxiliary Accounts When Quotary" add these items in the next 11 spaces



84 Form 12-21 (Rev. 75)

12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
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Section 1 after "Master Case Reference List (MCL)" add:

12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
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12-1 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 12-29 12-30 12-31

84 Form 12-25 (Rev. 75)

12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
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Section 1 after "Whitaker" add these in next 6 spaces

12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
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In Section II after "Tractor, Wooded-BAYT" add these in the next 3 spaces

12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
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In Section IV after "Tractor, Wooded-Excavator, Soil (Power-Guide)" add these items in the next 3 spaces

12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
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RD Form 73-11 (Feb-86) —

RECORDKEEPERS FOR OTHER SERVICE PROVIDERS  
EXEMPTIONS

NAME OF SERVICE PROVIDER  
EIN NUMBER (SEE INSTRUCTIONS)  
STATE OF SERVICE PROVIDER

If you have the form that's printed in red you'll have an easy job in being this up to date. The form printed in red includes all writes-in items authorized through 13 Jan 86, and only 2 have been added since then. If you still have the black form dated Feb-86, you add those. It'll be easier to add those writes-in if you follow the numbers in parentheses and add the items in the blank space below the number(s).

Section I

- 020 88-11 Baker, Wm.
- 037 88-12 Kane, Wm.
- 051 88-26
- 058 88-144
- 078 8-214



- 084-20-22 Baker-Wing, David (add from the red form)
- 070 1-27-88 88, 182, 711
- 100 1-20-88 Canada Council, 800
- 100 1-27-88 88, High Tech, 701 1073
- 100 1-27-88 American Exp. Insurance, PEO 88 10
- 100 1-27-88 88, Saltzman, Philosopher, 88 14
- 100 1-27-88 88, 284 1
- 100 1-27-88 88, 800
- 020 1-27-88 88, 10-88 Canada Council 800 (add from the red form)

ALL OTHERS  
 NUMBER OF  
 (SEE INSTRUCTIONS)

RD Form 73-20 (Feb-86) —

RECORDKEEPERS FOR OTHER SERVICE PROVIDERS  
EXEMPTIONS

NAME OF SERVICE PROVIDER  
EIN NUMBER (SEE INSTRUCTIONS)  
STATE OF SERVICE PROVIDER

Section II after "Target Markets"  
in the next 4 spaces.

Section III — In the same  
space after "AS/TSQ-11"  
add:



ALL OTHERS  
 NUMBER OF  
 (SEE INSTRUCTIONS)



**26 Nov 13-21 (Nov 18)**

REPLACE WITH THE NEWLY ISSUED INSTRUCTIONS

1. **REPLACE WITH THE NEWLY ISSUED INSTRUCTIONS**

YES  NO

2. **DATE**

3. **SIGNATURE**

Section I after  
"Safety On  
Separative M"  
add:



Section III  
after "Separative"  
in the  
next space  
add:



**28 Nov 13-24 (Nov 24)**

REPLACE WITH THE NEWLY ISSUED INSTRUCTIONS

1. **REPLACE WITH THE NEWLY ISSUED INSTRUCTIONS**

YES  NO

2. **DATE**

3. **SIGNATURE**

Under "Flight Simulations" in the  
next space add 2B-121

Skip a space and in the next space  
add:



DO YOU  
FORGET AND  
YOUR OFFICE WILL  
BE GETTING ALL  
THE NEW  
YOU NEED



SA from 12-27 to 12-31

REQUIREMENTS FOR ADULT LICENSEE VEHICLE FOR SA YEAR

SA Year	SA State	SA State
1974	1974	1974

THIS PART IS PART OF THE REQUIREMENTS OF THE ADULT LICENSEE

SA Year	SA State	SA State
1974	1974	1974



ADULT LICENSEE REQUIREMENTS

SA Year	SA State	SA State
1974	1974	1974

SA Year	SA State	SA State
1974	1974	1974

SA from 12-28 to 12-31

REQUIREMENTS FOR ADULT LICENSEE VEHICLE FOR SA YEAR

SA Year	SA State	SA State
1974	1974	1974

After "TRUCKS, VAN SHOP MINI" with



Under "Wrecked" when "MOTOR MINI" is used

SA Year	SA State	SA State
1974	1974	1974

**DA Form 13-49 (Reg 42) —**

REGISTRATION FOR NEW CONTRACTORS AND SUPPLIERS  
MILITARY, NAVAL, AIR FORCE, AND MARINE CORPS  
DD FORM 13-49

FORM OF CONTRACT  
DA FORM 13-49 (Rev. 10-1-68)  
GPO: 1968 O-348-200

Under "Tractor" and after "Maintenance (Tel Cable Springs) M307" in your M307 enter "Tank, 600 Gallon" and add M145.

Under "Non-tractor" after "Van, Supply, 12-Ton M1294M" in the next two spaces add:

REGISTRATION FOR NEW CONTRACTORS AND SUPPLIERS  
MILITARY, NAVAL, AIR FORCE, AND MARINE CORPS  
DD FORM 13-49

FORM OF CONTRACT  
DA FORM 13-49 (Rev. 10-1-68)  
GPO: 1968 O-348-200

**DA Form 13-49 (Reg 42) —**

REGISTRATION FOR NEW CONTRACTORS AND SUPPLIERS  
MILITARY, NAVAL, AIR FORCE, AND MARINE CORPS  
DD FORM 13-49

FORM OF CONTRACT  
DA FORM 13-49 (Rev. 10-1-68)  
GPO: 1968 O-348-200

Under "Tractor Device" after "Tractor, Motor, Pneumatic, M32A1" in the next 2 spaces add:

Under "Wagon" and after "Small 4-whe Wagon" add:

REGISTRATION FOR NEW CONTRACTORS AND SUPPLIERS  
MILITARY, NAVAL, AIR FORCE, AND MARINE CORPS  
DD FORM 13-49

FORM OF CONTRACT  
DA FORM 13-49 (Rev. 10-1-68)  
GPO: 1968 O-348-200

**DA Form 13-41 (Reg 42) —**

REGISTRATION FOR NEW CONTRACTORS AND SUPPLIERS  
MILITARY, NAVAL, AIR FORCE, AND MARINE CORPS  
DD FORM 13-41

FORM OF CONTRACT  
DA FORM 13-41 (Rev. 10-1-68)  
GPO: 1968 O-348-200

After "Transmitter, Superhetrodyne" add:

REGISTRATION FOR NEW CONTRACTORS AND SUPPLIERS  
MILITARY, NAVAL, AIR FORCE, AND MARINE CORPS  
DD FORM 13-41

**SOME HELPFUL HINTS**

It's wise to start at the top of the blank space when you're adding these items because most are 2 lines long.

Once you get your forms up to date it's easier to add these write-in items as they come in or at least keep one master copy of all forms up to date.

Print the dates after the DA Form numbers on page 57 of your DA Pamphlet 330-10 (Feb 68). It's easy to cross and add new dates as the old forms are made obsolete.

When you receive your write-in notices from the Publications Center, make sure you read them back within the time limit specified on the form.



DATA PLATES—IT IS A...

## SERIAL STEW?



Some manufacturers are making a sloppy "serial stew" out of their equipment records. They fail to cross-check serial numbers with equipment data plates and block 4 of DA 2408-B. It makes a muddle-mash of all their records.

If the form is one like DA 2408-T and covers an end item, the serial number needed is the number for the end item—no use of its components.

When the form is one like DA 2410 and covers only a component, use only the component serial number.



Many weapons and items don't have serial numbers. In these unusual cases, punch the "control number" from the upper left of DA 2408-B and put it in the serial number block, too. This becomes the end item serial number from now on — for DA 2408-B and all other records.)

To make sure you're not in a serial number stew:

1. Check the end item data plate and make sure the serial number there matches the one in Block 4 of DA 2408-B (or Block 3 of DA 2408-T) you have. Not instead of it.
2. And then you make out any other form (like DA 2408-I or DA 2407, Transmittal for the end item, make sure the number in the serial number block matches the one in Block 4 of DA 2408-B (or Block 3 of DA 2408-T).

3. Next time you make out a certified check, only a computer like the 2110, 24,2400 11 and some 24 (204-74) for display), check the serial number against the serial number for the computer.

Major checks that need a check-out are:

IMPROVE THE BUY  
BOOKS

01 1, 01 2000-4,  
01 2, 01 2001, 01 2002-01, 01 2003-01, 01 2004-01,  
01 2, 01 2005-01, 01 2006-01, 01 2007-01, 01 2008-01,  
01 2009-01 and 01 2010,  
01 1, 01 2011, 01 2012, 01 2013,  
01 1, 01 2014 for multiple times.



Make sure these serial numbers come from the right-hand plate and match the numbers on shown on Ed. 2408-0, and otherwise you can make up a name that'll get you behind the 8-ball.

## SKIN DECON PAD



Top. The skin wiping pad in your M15 decontaminating and recontaminating kit, 200 4200-001-0100, should fit over three (3) gloved fingers—like it shows being 6, 70 3-4200-007-10 (Max 60). But, if the pad in your M15 kit covers only two fingers, don't fuss in trying for a 3-finger loop...you've got a short pad. But, it's OK. Just use your pad like it says in the TB. Lower kits will provide 3-finger pads.

## PUBS FOR OTHER SERVICES

SP-4  
2110

You can get info for ordering Navy, Air Force, Marine Corps, and Defense Supply Agency pads and labels forms in Ch 6 (Jan 80) or AR 300-1 (Mar 82). Sent V of the change lists the addresses as well as the forms to use for your requests.

## MTOE IS A MUST

Since you can use AR 315-4-00a 00a, para 7a(2), to hang on to or request major components that've been pulled from your rate, list, number, etc. But that's just a temporary OK. Your route also has to put in an MTOE listing the needed items. Check your local SDF for scope on MTOE's, and see AR 300-31, Sent IV.



“I’M POPPING MY BUBBLES BANGS!”



When your Huey or HueyCobra is running a high altitude gas competition, her is showered up air flow with blood head popping and is generally under gas the main prescription K<sub>2</sub> P. D-200, Type 1.

Treatment, a dose of dry cleaning solvent followed by a water rinse is the preferred way to clean the insards of your engine to prolong its life.

One or two cleanings can guarantee to get 90% of the dirt out of the water and



CLEAN ENGINE BATH

compressor intake and to insure the engine power.

Before you start and end mechanic work for the engine, she, be sure you have pencils, pens, markers, wrenches — say those items. You’re going to make one and run the engine, and the marker developed will mark dropped items. You know what that means . . . FAX! for mail!

**WASH WITH THE** 

Use one of these cleaners:

**Engineing Oilcut, P-200, Type 1**  
**EM-100-10-100 2-qt. can**



**Water Soft, M-1000**  
**EM-100-10-100 2-qt. can**



“WASH YOUR FOLLY HEAD TO GET THE JOB DONE”



Contents of the compressor air stage decrease due to the 1:1.1 ratio for used in high level, due to the use of compressed cleaning solvent.

### CLEAN BATHS

Here's how to go about cleaning the T152.11 engine —

First off, back on to a quart of dry cleaning solvent.

If you're lucky enough to have air pressure handy pour the solvent into the pressure-wash gun, which is part of the organizational maintenance A, B, or C tool kit.

Out to the dirty hoodies get a hand-pumped water line extinguisher. Make sure it's empty and clean. Pour the oil over into the extinguisher so you'll be able to spray 1 quart. With your trusty general mechanic's tool kit in hand, make for the bird. Take a couple of helpers with you.

The engine should be cold and the bird parked in a maintenance area where you can get vents.

### OPEN UP



Open up the engine cooling and take all the cover plates.



Take out the cool and shut openings so that the engine head is exposed.



Be cautious here, please! Like — never try to clean the engine by spraying the engine with the separator air. If you do, you'll send the dirt in the separator right into the engine itself.

Next, take the inlet air temperature reading almost all the inlet housing by removing the four retaining bolts. You do this to keep the element from getting plugged with dirt because during the cleaning chore.



Disconnect the pressure line from the oil-flood inhibitor as the line won't get plugged with increased dirt. Put an O-ring cap on the fitting.



Block off the customer bleed air supply at the customer defined port in the certified adapter assembly by using hose, P/N 2446-100-9122.



### SPRAY WITH SOLVENT

Have your buddy move over the engine with the starter.

Spray the square of the dry cleaning solvent evenly along all sections of the inlet. Be sure both sides of the inlet guide vanes are covered with the solvent.



When the solvent is used up stop reactivating the engine and let it sit for an hour or so to allow the solvent to soften and loosen the carbon-on dirt.

The dirt really builds up on inlet guide vanes, so go over them with a small, round, fiber brush with a long handle when you return from your break.

### SPRAY WITH WATER

Have your fratch through jockey start the engine and run it at flight idle.

To get rid of the dirt loosened by the dry cleaning solvent, spray clean, fresh water evenly into all sections of the inlet housing at a rate of 2 gallons per minute for about 2 minutes.

After the water treatment run the engine from 2 to 3 minutes to dry it out. Shut down the engine.

Eye the tail guide vane and compressor for cleanliness. If the engine is still dirty, a second cleaning should do the trick.

Clean the air temperature sensing element with dry-cleaning solvent and put it back on the inlet bearing. Remove the nuts and lockwire the mounting bolts.

Remove the cap from the firing and connect the pressure lines to the air-fuel control.

Put the separator and screen filters back.

Close the cowlings, and your bird's ready to take to the wild blue with new pep, vim and vigor.



## IT'S WHAT'S UP FRONT THAT COUNTS!

The view from the front reveals more than the view from the back.

The old tail cone conical bearings in your Huey and HueyDeltas are no exception. The front side shows more of the ball bearings than the back side.

If you don't know which is which the 2 bearings can be put together back-to-back. Put in that way you have roughly an hour or less flying time before the bearing is balls, followed by the tail race.

The bird registration maintenance guide tells you to put the bearings together back-to-back, too!

As an additional guide the bearings are drilled in them a "V" when they're back-to-back. A look at the part numbers will also show you which bearing we're being used.

If you're lucky enough to have the new conical bearing, P/N 204-811-795-1, P/N 2100-131-8103, there's no chance of a mishap.

This baby has a double row, inner



row with a single outer row. Both sides are the same so there's no front and back . . . no "V" mark needed.

Just put the 2-piece bearing set together and you're in the tail cone assembly business.

## YOU BE THE JUDGE



Dear Windy,

The limited high and low—without an over—on the allowable play in the theory (20-10%) drops companies receiving full and-out hearing. Can I still file 10-100?

What are the limits, Windy, which would require changing the rule out?

PH & MC.

Dear Specialist E. McC.,

There're no limits because you're not allowed any play.

You'll still get some slight movement, however, when you place your bets on the field during a hearing check... movement.

Of course, if the hearing is more from lack of information or circumstances you'll have a way less link on your hands.

Page 28 of DA Form 12-31 (12 Jul 64) has "executive hearings" as one of the conditions which call for a hearing change.

*Windy*

# BE IN-THE-KNOW



HE'S THE VERY QUART THAT'S GOT AN 80 PERCENTAGE FOR MARKET SHOULD BE IN A DIFFERENT MARKET... THE GET INTO EQUIPMENT THAT CHANGES, WHAT THE—OH, YOU CAN SUPPORT DIFFERENT TYPES... OH YOU CAN'T! YOUR ANSWER... OH NOT DELIBERATION... OH IF THAT ACTIVITY NO MARKET SHOULD ADDRESS... PUGH...



DA Form 12-31



## ON A WIMP ANTENNA TESTER ... SAFETY'S THE END ITEM



A dead-down radio antenna can save the official experiments, just every now, but still—

ball, it can play a part in some entirely unexpected accidents, like maybe the antenna tip fits in a Joe's face, or eyeball.

Man doesn't have to be a brain-trust to figure out that accidental sort of antenna-tipping won't be doing anybody's eyeball or face any good.

So it takes a little something to make that dead-down antenna safer.

Like a rubber ball, or a plastic ball. Or a plastic cushion you can build for yourself, right on the antenna.

If you use a ball, you'd have to know just how big you are.

But you can grab a 1/4-inch roll of polyethylene electrical insulation tape with P/N 2870-248-0020. It's listed on Pg 2-44 of Rad Car C2970-B-A (Nov 69).

Just wrap the tape around the antenna tip, stretching the tape as you go. Keep this up until you get a steady cushion of the soft stuff.



If you use the rubber-ball method, you could wrap tape around the ball and under the ball with the tape a little below its bottom.

The extra protection should include down the diameter of some unhappy Joe getting his eyeball shivered by a wimp antenna tip—and it won't interfere with the performance of your antenna.

Further along the safety side, if you're using the M2-1184 main antenna you're in luck. You can replace an antenna tip assembly (P/N 5685-048-7214) for the M2-1184. It's listed on Pg 7-6, Rad Car C2645-B-A (Nov 69).

And for bright ideas in the future, there's a plan in the mill to authorize protective antenna tip assemblies for the AT-1095 (YOC antenna element).

Meanwhile, you can use a ball, insulating tape, fishing wicks, bottle stoppers, syring tips, and other non-conductive items, as field expedients.

# SEARCHLIGHT BUGGED BY BUGS?



beasts—! They can mean bad times sometimes—especially when they come around an AN/TPS-3 searchlight set and end up in the fan motor.

They can clog the exhaust blower filter and the heat exchanger cooling fins. That can knock out your searchlight power.

What's the answer—?

TM 11-6156-206-13 (Der 67) gives you the word on daily cleaning of the exhaust blower filter and heat exchanger cooling fins. (Symbol) Para 4-4 for instructions on blower filter PM, Para 4-4 and 4-5 for intake exchanger cooling fins, and Para 4-3 for servicing the exchanger.

And if you're in an area where flying insects and other bladders are really bugging' the searchlight, just add extra cleanings and inspections, as many as you need to do the job.



CALL TO  
8776

## SAFETY STRAP STORY



Order any time the LC-31 Loadmaster's Belt and it includes the Safety Strap. If you just need the strap, though, look up Straps, Safety Industrial in SC 42087 Rt. 11 (Jct. 87). Item 4240-203-0025 is leather ... 4240-712-0713 is nylon.



## VRC-12 PA TUBE NEWS

Next time you've gotta replace the 6X801 power amplifier tube in the RT-145 or RT-104 of the AN/VRC-12 voice radio set, don't.

YECOL replacement has been approved to direct support because of design changes in the equipment. TB 750-011-1-1 (Apr 70) will have the word.



## FUSE NEWS



Don't assume it if the replacement fuse you asked for comes through with a higher voltage rating than what you wanted. Use it.

The thing you gotta be sure of is that the amp/voltage rating is what your TB calls for and the voltage rating is the same or higher. Like, if you need a 5-amp job and you get a 10-amp replacement, use it back. The amp rating can't vary, either way the blow time. You need a double for a double, etc.

Naturally, any replacement you get has gotta be the same shape and size as the one's it's replacing.

But like we said, voltage variance is allowable . . . providing it varies upward.



## CAP AND CONTACT

Now, before this will get watchful, you AN/VRC-12 radio set types . . . you can get the dual lamp-cap with the contact springs inside the caps.

If you're not getting the cap and spring with PGM 5628-248-01-09 or you see it on Fig 4, TB 11-5628-251-20P (May 69), order a stock or PGM 5628-117-1490, which should get you the whole cap assembly.



KNOWING 48-MINUTE CABLE ASSEMBLY TO SUPPORT FOR SERVICE THE  
WIRE IN THE CURRENT INTER-AREA COMMUNICATIONS SYSTEM, WE WANT  
TO INCLUDE THE CLAMPS, EVEN IF THEY'VE BEEN KNOWN OFF.  
CONSIDERING THE CABLE ASSEMBLY COULD BE DAMAGED A SPELL, SINCE  
THERE'S NO STOCK OF CLAMPS IN THE SUPPLY SYSTEM.

**THEY'LL DO YA' DIRT**



Sand and dirt and dirt... they're the things that last...

... but the TT-881178 and TT-761180C teleprinter units that help make up the AM/NEC-20 cable teleprinter set is marked vehicles like the M115 personal carrier and the M277 command tank.

In case the dust covers are damaged and protecting your teleprinter when they're not in use. This is especially important while the vehicle is moving and the dust clouds are gathering.

Otherwise, dust and dirt and what-have-you will really have a holiday grinning along with the gears and bearings of your TT's.



## EVERY LITTLE PIECE HELPS

A screw taken from a TT-40 1/2"TD idlerpowerline set . . .

Maybe a gasket from the 88-8870 dynamic airbrake . . .

Possibly even a component of the 4N/ VSC-12 series of rolls sets . . .

Thing is, whenever you receive any part — either for repair or exploratory reasons — and end up needing your equipment to support, one rule holds:

Send along any gaskets, screws, nuts, bolts, etc. that were removed from the equipment.

Put 'em in an envelope, tie 'em on, tape 'em on—any way to make sure they make it to the support shop together with the cool bits.

That way, support won't be in the predicament of repairing the equipment's known malices, then running into a situation where a piece of missing hardware costs a lot of extra downtime.

Sometimes, there might not even be a stock number available for the piece that's missing from the equipment.

This could mean a few complications and holdups, like higher-level fabrication, for example.



A cogwheel, for instance, for your idlerpowerline can't be ordered as an assembly because it has no overall stock number. It's gotta be broken down and ordered by its individual parts.

Take care, so, you'd definitely include any removed cogwheel with the idlerpowerline you send to support.

Make it a special point to send support all the parts you have—even if they seem bad. In many cases they may be usable.

Course, small parts do sometimes get lost in the field or in warehouses, and there's not much you can do about that except be careful.

But when it comes to handling more regular removed parts, and sending 'em to support along with your cool equipment, that's where you can be real careful.

And that's where it counts.



## NO PLIERS, PLEASE



Pliers ... ? They're strictly used on solid-column batteries. Never use 'em. Tightening them would pull jaws on the cell. Miss your caps could cause the caps to crack. Use the nylon wrench that's issued with the battery. It's POM 1128-029. See also Pg 5, 112 of Fed Car CH304-L-8 (Jan-85), if you need one.

## LANYARD LAMENT

For the want of an eye the chicken was lost.

No poor wren is it. That's a straight FBI fact, taken from the post which went the last DA from 2407 work report on an ANYBER-3, ANYBER-4 equal ratio lanyard cycles.



Some jaws from the lanyard snap through the cycles on the receiver or transmitter case instead of keeping the lanyard end through the cycles. Result, regularly, is that the cycles break off.

Follow-up result: the whole chain, or case, must be salvaged because the cycles can't be repaired.

Worse method of breaking the cycles is swinging the receiver or transmitter by the lanyard.

In-o-w-o, keep the snap end of the lanyard away from the cycles ... and swing your partner.





THE 12 IS IDEALLY SUITED TO A RANGE OF WORKS IN PRODUCTION, FROM SMALL BATCHES TO HIGH VOLUME. THE 12'S 1000WATT MOTOR AND 1200MM WHEELS MAKE IT THE IDEAL CHOICE FOR SMALL TO MEDIUM SIZED BUSINESSES. THE 12'S 1000WATT MOTOR AND 1200MM WHEELS MAKE IT THE IDEAL CHOICE FOR SMALL TO MEDIUM SIZED BUSINESSES.

#### TECHNICAL SPECIFICATIONS

- 12.1 MOTOR POWER: 1000WATT
- 12.2 WHEEL SIZE: 1200MM
- 12.3 WEIGHT: 120KG
- 12.4 SPEED: 1000RPM
- 12.5 MAXIMUM TORQUE: 100NM
- 12.6 MAXIMUM SPEED: 1000RPM
- 12.7 MAXIMUM TORQUE: 100NM
- 12.8 MAXIMUM SPEED: 1000RPM
- 12.9 MAXIMUM TORQUE: 100NM
- 12.10 MAXIMUM SPEED: 1000RPM
- 12.11 MAXIMUM TORQUE: 100NM
- 12.12 MAXIMUM SPEED: 1000RPM

- 12.13 MAXIMUM TORQUE: 100NM
- 12.14 MAXIMUM SPEED: 1000RPM
- 12.15 MAXIMUM TORQUE: 100NM
- 12.16 MAXIMUM SPEED: 1000RPM
- 12.17 MAXIMUM TORQUE: 100NM
- 12.18 MAXIMUM SPEED: 1000RPM
- 12.19 MAXIMUM TORQUE: 100NM
- 12.20 MAXIMUM SPEED: 1000RPM
- 12.21 MAXIMUM TORQUE: 100NM
- 12.22 MAXIMUM SPEED: 1000RPM
- 12.23 MAXIMUM TORQUE: 100NM
- 12.24 MAXIMUM SPEED: 1000RPM

THE 12 IS IDEALLY SUITED TO A RANGE OF WORKS IN PRODUCTION, FROM SMALL BATCHES TO HIGH VOLUME. THE 12'S 1000WATT MOTOR AND 1200MM WHEELS MAKE IT THE IDEAL CHOICE FOR SMALL TO MEDIUM SIZED BUSINESSES.

- 12.25 MAXIMUM TORQUE: 100NM
- 12.26 MAXIMUM SPEED: 1000RPM
- 12.27 MAXIMUM TORQUE: 100NM
- 12.28 MAXIMUM SPEED: 1000RPM
- 12.29 MAXIMUM TORQUE: 100NM
- 12.30 MAXIMUM SPEED: 1000RPM
- 12.31 MAXIMUM TORQUE: 100NM
- 12.32 MAXIMUM SPEED: 1000RPM
- 12.33 MAXIMUM TORQUE: 100NM
- 12.34 MAXIMUM SPEED: 1000RPM
- 12.35 MAXIMUM TORQUE: 100NM
- 12.36 MAXIMUM SPEED: 1000RPM

## New Fifth Wheel

Have the locking dogs on the fifth wheels of your 4-ton tactical truck tractor been breaking? No more. Order the new standard fifth wheel assembly under P/N 1200-000-7771 using EC 824. You'll still order fifth wheel assembly, P/N 1200-700-7000 for use on your 2 1/2-ton tractor.

## BTAS Are Here

Change 3 (BT Cat 87) to TM 9-1080-109-13 gives you the wrap-on the BT15 black ring attachment (P/N 1080-F11-201) used with the BT14.1 rifle.

## Motorfoot Oil Check

Instructions for checking the crankcase oil level in your 2 1/2-ton or 4-ton modified engine truck are in TM 100-900-0 (Vol 05), page 41, Article 1-8. The same info appeared in PE 101, page 14, and will be reflected in changes to TM 9-1080-000-10 and TM 9-1080-011-10.

## New Records AR

For the wrap on setting up and getting rid of supply and maintenance records you need AR 140-2 (Sep 87). It supersedes AR 140-213.

## Cover's Mini Min's

"Gee,  
I'm not a  
handyman  
person."

"Your  
suspects  
are, too  
fast!"

### *Awful Loading*

As any shop technician can tell you . . . items with primer loaded in one pack, started to and loaded into the tank — primer seal up. That way, if the nozzle's dropped, its toll's not likely to reach any sharp object that could set it off. See Feb 17-23 (Nov 84), page 262. And, watch the foot-and-heel hole in #5 200, page 17.

## **ECCS**

### *Come to AR 735-35*

All property book page values should add the new 2-letter equipment category codes in front of each #8 200. 20 20% entry on of right now. This is the word put out in 24 message OCS800-UPPO 103324E. See #9 telling you to add this info to page 3-26(1/2) in AR 733-20. EA Ch 736-20 (7 May 87) has the ECC's you need.

### *Servicing EEC*

Don't look for a big load of tools to new engine-type equipment manuals from now on. Tools like these files (EE) are being obsoleted, because most any repair means a trip to the shop anyway. Besides, it saves weight and money — including the operator's cash that might go for statements of charges on tool tools.

### *New Make Switch*

Buy [M-10/14] maintenance types — the foot-tilt switch needed by those gunners to communicate, when they have their hands full, is here. Stop on #7 Schedule ARVD 20-1200-210-20/27 (18 Dec 86) for your shopbookings, ARVD 20-1200-211-20/21 (23 Dec 86) gets the wire switch in your 20-18, C models.

### *Let George Do It*

There's no need for you needs to get fire the number (junk) of an odd test on metal particles from a shopper gear box.

You might even get your fingers burned!

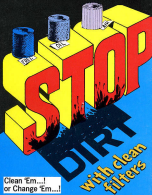
To find out if the part is OK, make the "eye" and "feel" test of particles found on the chip detector plug, as called out in the kind organizational maintenance job.

Oil analysis by the AECAP lab listed in Ch 4 (Nov 87) to TB 12-6000-200-12, will give you a scientific reading on the gear box.

### *Rifle Bracket Mount*

How you can get the instructions for mounting the rifle bracket mounting kit, F54 259-043-9611, for M14 or M16 rifle on construction equipment, TB 758-244 (Aug 87) has the steps.

Would You Stake Your Life <sup>with you</sup> on  
the Condition of Your Equipment?



Clean 'Em...!  
or Change 'Em...!

Protect Your Equipment