

Issue 37

**PS**

1953 Series

**THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY**





# THE DAY 3<sup>RD</sup> ECHELON WAITED



Bob Dehelen walked . . .  
He looked around in fear again . . .  
no hands . . . no weapons.  
"It's too quiet," they said.  
They didn't know till later  
that the using walk  
had got us "on-the-ball"  
with their maintenance  
and operating procedures  
that there was no equipment  
in the area working  
but Dehelen repeats . . .  
so, nothing went to  
the maintenance support unit  
to get fixed.  
The guys who use the equipment  
and their unit mechanics  
kept their staff ready and rolling  
by preventing trouble  
before it started.  
They did it with the right kind of  
operating,  
loading,  
cleaning,  
trim,  
adjusting and repairing.  
It was "on-the-ball"

#### Preventive Maintenance.

How's yours?

## PM MAGAZINE

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PM Magazine wants your ideas and contributions, and is glad to answer your questions. Just write to: Sgt Bill Reed, PM Magazine, 45000 Highway, Beltsville, New Jersey. Please, use address on left if possible.

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## What Goes Where When... **STOWING**

Finding the right spot for your stuff isn't always obvious—especially if it's a trap when planes have used above.

Here's how storage items and a check for their stowage help to set things straight—so you'll always be in hand at the right time at the right time.

Items are shown grouped by storage area. For more specific tips—the gear name and quantity—just read on.

### **STOWAGE CHART** RIGHT REAR VIEW



# M48 TANK OVM



**STORAGE CHART**  
LEFT FRONT VIEW





# CHECK LIST

WHERE YOU SEE AN ASTERISK (\*) BEFORE AN ITEM, IT'S NOT SHOWN ON THE STORAGE CHART.



NAME OF PART	NO. OF UNITS	WHERE CARRIED
<b>ARMAMENT</b>		
BARREL, 10 mm, 100	1	IN THE MOUNT
WEIGHT, cartridge gas, 10 mm, 100	1	INSIDE IN TURRET
WEIGHT, wt. 25, 100	1	BEHIND TURRET ABOVE MOUNT
BARREL extension, w/ 10 mm	1	BEHIND TURRET WALL, BEHIND LIGHT
COIL, motor, w/ 10 mm, 100, 100	1	ON MOUNT ON TOP OF TURRET
OR		
TURRET motor, w/ 10 mm, 100, 100, 100, 100	1	ON COMMANDER'S DECK
WEIGHT, motor gas, wt. 10	1	
OR		
TURRET, motor gas, wt. 10, 10	1	BOARDS IN COMMANDER ON MOUNT
COIL, motor, w/ 10 mm, 100, 100, 100, 100	1	
WEIGHT, motor gas, wt. 25, 10	1	
<b>IGNITION and FIRE CONTROL</b>		
WEIGHT, wt. 10	1	IN TANK, IN TURRET COMMANDER
WEIGHT, motor, 100	1	TURRET DECK
TURRET, motor, 100	1	TURRET DECK
WEIGHT, motor, 100	1	BEHIND TURRET WALL
WEIGHT, motor, 100	1	IN TURRET ABOVE ON MOUNT
WEIGHT, motor, 100	1	ON TURRET
WEIGHT, motor, 100	1	BEHIND TURRET MOUNT
WEIGHT, 100	1	FOR REPAIRS ABOVE COMMANDER'S DECK AND TURRET MOUNT COMMANDER'S DECK
WEIGHT, 100	1	IN MOUNT, PORTION, 100
WEIGHT, 100	1	
WEIGHT, 100	1	TURRET DECK AND ON MOUNT AND TURRET DECK
WEIGHT, 100	1	
WEIGHT, 100	1	IN TURRET MOUNT
WEIGHT, 100	1	ON MOUNT ON TURRET
WEIGHT, 100	1	
WEIGHT, 100	1	IN COMMANDER'S DECK
WEIGHT, 100	1	IN COMMANDER'S DECK
WEIGHT, 100	1	IN MOUNT, TURRET, 100



NAME OF PART	NO. FOR ORDER	WHERE CARRIED
<b>TOOLS AND EQUIPMENT for LIME, SILL</b>		
1000 pounds, one	1	in READY MIXED CONCRETE CITY AND TRUST CO.
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	in THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THE READY MIXED CONCRETE CITY AND TRUST
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL
500 lbs. capacity, 10 ft. x 10 ft. x 10 ft.	1	IN THIS SILL



NAME OF PART	QUANTITY	WHERE CARRIED
<b>TOOLS and EQUIPMENT for TANK, BAR</b>		
Sawhorse, each, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1
Sawhorse, 12 ft. x 12 ft. x 12 ft.	1	1



IN THIS SET  
IS MOST EVERY TOOL

MOST EVERY TOOL

NAME OF PART	QUANTITY	WHERE CARRIED
<b>TOOLS and EQUIPMENT for GUN, 10-30, 104</b>		
SIGHT, iron-mount and sight ring	1	IN GUN RANGE BOX
SIGHT mount, wooden, set 1 and 2	2	IN INSTRUMENT BOX
SIGHT base, wooden, 104	1	IN GUN RANGE BOX
COVER, wooden, 104	1	IN GUN
COVER, wooden, 104, 104, 104	3	IN GUN RANGE BOX
COVER, gun bag, 104	1	IN INSTRUMENT BOX
COVER, wooden, 104	1	IN GUN
GUN, 104, 104, 104, 104	1	IN GUN RANGE BOX AND EQUIPMENT
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
GUN, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
<b>TOOLS and EQUIPMENT for MOUNT, COMBINATION GUN, 114</b>		
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
<b>TOOLS and EQUIPMENT for GUN, MACHINE, CAL. 30 (80) (WINCHESTER), 101, 101 (Revolvers in boxed type)</b>		
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
<b>TOOLS and EQUIPMENT for GUN, MACHINE, CAL. 30, BROWNING, 101 (FIELD), (Revolvers)</b>		
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX
SIGHT, wooden, 104, 104, 104, 104, 104, 104	1	IN GUN RANGE BOX



NAME OF PART	Qty. Req. (Each)	WHERE CARRIED
<b>EQUIPMENT for MOUNT, TRIPOD, MACHINE GUN, LMG, MG, M2</b> M20, tripod mount	1	IN TRIPOD MOUNT
<b>EQUIPMENT for GUNNER, LMG, MG, M2</b> LM2, vision coupling	1	IN GUNNER MOUNT (MOUNTING POST) TOWER
<b>EQUIPMENT for GUN SUBMACHINE, LMG, MG, M20</b> LM2, vision coupling	1	IN GUNNER MOUNT (MOUNTING POST) TOWER
<b>TOOLS and EQUIPMENT for MOUNTING and FIRE CONTROL</b>		
1 M20, instrument for set level	1	IN GUNNER MOUNT
1 M20, instrument with level	1	IN GUNNER MOUNT
1 M20, key for instrument M20	1	IN GUNNER MOUNT (MOUNTING POST) TOWER
1 M20, instrument, M20 for M20	1	IN GUNNER MOUNT
<b>SPARE PARTS for LMG, M2</b>		
CONNECTOR, for synchronization, synchronization is made by	1	IN GUNNER MOUNT
FIELD WINDING COIL, left, with one brush, right, for M20, spare parts	4	IN GUNNER MOUNT
ARMATURE, wound with 24 turns, right hand for M20 for M20	4	IN GUNNER MOUNT
ARMATURE, wound with 24 turns, right hand for M20 for M20, left hand	4	IN GUNNER MOUNT
ARMATURE, wound with 24 turns, left hand for M20 for M20	4	IN GUNNER MOUNT
WINDING COIL, synchronization and motor for LMG	1	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	12	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	1	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	1	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	1	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	1	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	1	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	1	IN GUNNER MOUNT
FIELD WINDING COIL, for M20, for M20	1	IN GUNNER MOUNT
<b>PARTS for GUN, LMG, M20</b>		
FIELD WINDING COIL, for M20, for M20	1	IN GUN, LMG, M20





NAME OF PART	NO. AND QUANTITY	WHERE CARRIED
<b>INDICATING EQUIPMENT, continued</b>		
CARTON, metal, stamped steel	4	ONE IN EACH TURRET IN TURRET
COVER, zinc plate, 8000	1	1. IN TURRET BOX
GASKET, zinc, 8000	1	1. IN LEFT TURRET
GASKET, zinc, 8000	1	1. IN RIGHT TURRET
INDICATOR, zinc, zinc plate, stamped, 1/2 x 3/4, stamped sheet, zinc	1	IN TURRET PLATING
LAMP, 100 WATT	1	IN LEFT TURRET BOX
LAMP, 100 WATT	1	IN RIGHT TURRET BOX
LAMP, 100 WATT	1	IN TURRET PLATING
LAMP, 100 WATT	1	IN TURRET PLATING
LAMP, 100 WATT	1	IN TURRET PLATING
LAMP, 100 WATT	1	IN TURRET PLATING
LAMP, 100 WATT	1	IN TURRET PLATING
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LAMP, 100 WATT	1	IN TURRET PLATING
LAMP, 100 WATT	1	IN TURRET PLATING
LAMP, 100 WATT	1	IN TURRET PLATING

# HOW TO DEFLATE A WINDBAG



For each a BT guy, that double-swing clutch in your 2-112 has been used. These laborers can save the one feature by itself. If it starts going off, your front and back wheels don't tug-wangle—go! This way and that—rather of "we know what the other is doing and not going with."

So, it's best that this double-swing clutch get knocked down off its baby perch. And here's how to find out if the BT does to water' legs:



## Jack up one front wheel.

With the transmission in reverse, the wheel should be free to turn back wards. It should be locked against forward motion.

With the transmission in low gear, the jacking-up wheel should turn forward. It should be locked against back-ward motion.





Most times out of 30 three three cups'll tell you whether or not the CVT falls on its head for being a good boy, or whether or not the CVT has a head where it hasn't—right is the sliding-linkage between the transmission and water for use, where it's being used.

But there may be that one time when you check the thing out and it's OK. Then, you take your vehicle on a road-

runny ride and find that your front-wheel drive is not working right or forward in reverse. What happened?

Well, you're getting only partial engagement of the sliding clutch pack. This is enough to lock your wheels when you make your check, but when that driving torque starts working, the clutch can jump out of engagement.

So, if this happens or if things aren't right when you first make your check, it's time to take some more (a new one and several more).

### *To help you along, follow the pictures.*



**7** If your wheel's stuck in forward motion, wiggle wheel counter-clockwise (CCW) to neutral, and the wheel will roll out of gear to another forward motion (see 1st picture below).



**8** Next, wiggle the wheel clockwise (CW) to neutral, and disengage reverse motion (see 2nd, 3rd and 4th pictures below).



**9** If your wheel is still stuck from turning, wiggle the wheel clockwise and forward again. If it won't roll, wiggle wheel CW and forward.



**10** And now the time to engage (set) the wheel again (see the 5th, 6th, 7th and 8th pictures).



**11** Still in forward, try to put the wheel into low forward motion (see 9th picture).



**12** If it won't do that, 1/2 a inch (1/2") or so, if it won't do that 1/2" inch, wiggle the wheel clockwise (see 10th picture).



Check the whole operation again for forward speed and reverse speed adjustments like it shows in the pictures. After this final check, go through the first check you made—putting the transmission in reverse and moving the wheel

backwards, making sure it's locked against forward motion. Then, putting the transmission in low gear and turning the wheel forward, making sure it's locked against backward motion. Also check your TAP-ER.

**And that's all. You've turned a mag swing into a pipequand.**

*Connie Rodd's*  
1937-1938-1939



### *Getting tire chains*

With winter chains here, some of you may well want to know how to get tire chains for your vehicle. Well, here's the scoop—

First off, you need a justification. If winter is going to be rough on your area—snow, sleet, ice and such—you can get them.



Write us your explanation why you need the chains and get it through your club check. If the commanding general of your particular Army area or equivalent command approves, you'll get them.

The same procedure applies to National Guard units. For the U. S. Postway and Fleet Office of each zone'll make the decision.

Take a look at the Maintenance Material section (Section II) of your OMD 7 (NE)'s to find out which tire chains'll fit which vehicles.

### *Plug repairs*

You got an M41 Building tank with God Stock No. 2643 or below? Or an M42 that's No. 214 or under? Then take a close look-over at its final drive magnetic drive plugs—over time you're changing oil.

The early-type plugs used aluminum sleeves with aluminum washers between the magnet and plug body. They've had a nasty way of coming apart—with unhealthy results to the final drive.

Fixed one of these with a magnet loose enough to come with your fingers—better replace it fast. It's God Stock No. 18000-0402-008.

There are two types of replacement plugs stocked under this number (Fig. 1). In your order, specify Style I. It's got a square-shaped base and magnet

that stays put. It's best for this job. On your inspection specify: "With square magnet, collapsed, not riveted."

But—you may not get it. If you get another type II plug instead, go ahead and use it. But—keep a sharp eye on the magnet. Check its alignment every time you drain the oil. Get a new plug if and when the magnet gets loose.



The type II plug is in the process of redesign. The aluminum rivet's being replaced with a steel self-tapping drive screw to hold the magnet and plug together. You'll see the supply department when it's available. It may even get a new stock number.

### Compensating filler valve

The 200 compensating-filter-wheel unit gets a filler plug installation that's different from the one I'm talking about from the front of the tank.

When I built this tank—41 inch weekly service—make sure that all mud and sand's knocked off the top of the filter before you take out the plug. Then fill it—all oil runs out the plug opening. The hole number (LD 9-754 2) is being changed to mark out the draining requirement.



Should you find leakage between the filter wheel and bearing pin, likely you need a new link arm oil seal (Oed Seal No. 10015-028 241 1), also an anti-leak spacer (G294-0285002) in between the seal and bronze-bearing.

When you spot a leak around the filter wheel spindle cover (center bearing) — better order a new gasket (Oed Seal No. G154-0287004).

### Preheat 'it up

A sudden blast of hot air 'preheat' a cold metal device windshield will crack the glass. That hot air has got to be restricted from inside. Your Motor Power crew won't control the cold air from outside.

When warming up your tank's oil in cold weather, start off those wind-shield-defrosters. Then start your heater connected on 2000. Just as it like this cold the cab warms up.

After the cab is warm, and only then, remove the defrosters. This'll let a warm flow of air get the windshield ready for the coming hot blast. After a couple of minutes of this, you can safely turn the heater to HIGH without causing damage. For more info on the 2-1000 series mechanical facilities.

Most windshield are made of two pieces of glass sand-welded together. When the inside half is hit by a blast of hot air, it expands. Yours becomes hot. And, there you go—the windshield.

### *Airing it out*

All Oldsmobile recent-type trucks that have air-compressors are supposed to have a dry-bulb-thermometer and check-gauge.

But some Buick Wildcat series, Oldsmobile Midas series and Oldsmobile Wildcat series trucks've been short-changed. All they're equipped with are regular air checks.



No, you guys running around in these trucks had better check 'em out. If all you've got is a regular air-check, you now can get a dry-pressure-gauge.

Here's how to do it. Order a Gauge, air pressure, self-contained dual-check from Oldsmobile No. 642-630. The various Old 7-500's are being advised to provide authority, Old 507-1133.

### *In, go with GO*

To fill or not to fill—that's no longer the question. Now, it's just a matter of putting until the steering gear housing on your Oldsmobile series Oldsmobile truck is full.



Next time you take Oldsmobile series into line think for a check-up—in for more mobility (B) service—take that plug out of her steering gear housing. If the GO (Gibson's, universal, gear) is not up to the speed the filler-level plug (Fig. 2), more pouring need it is.

The housing is divided and sealed at every interval (DO) service. When the housing is filled to the top, it'll take about 2-1/2 pints of GO. GO-5412, which says the more you can fill her is with one pint, is getting a change. The change will come out as GO-5412.

### *Slippy shafts*

Been too many propeller shafts replaced on account of more wear at the spline joints that will lead loss of miles in 'em.

What I'm getting at is. Don't change the shafts until you have either excessive vibration or all your day are too sloppy.

You can keep the wear down to a minimum by checking the condition of the cork or neoprene washer under the dust caps. This wear's help wear that has already taken place, but it will keep excessive dirt out of the spline joints.

# The SCOOP



THE SCOOP is a weekly feature that provides readers with the latest news and information from the world of business and industry. It is a must-read for anyone interested in the current state of the economy and the marketplace.

## NEWS

The first section of the Scoop covers the most recent news stories. It includes reports on major economic indicators, such as the GDP growth rate and inflation, as well as news about government policy and international relations. The stories are presented in a clear and concise manner, making them easy to read and understand.

One of the key stories in this section is the announcement that the Federal Reserve has raised its target interest rate. This move is seen as a response to the recent surge in inflation, which has reached levels not seen in decades. Analysts predict that this will lead to a slowdown in economic growth, but it is also expected to help bring inflation under control.

Another major story is the release of the latest unemployment figures. The unemployment rate has risen slightly, but it remains below the long-term average. This suggests that the economy is still recovering from the recession, although the pace of job creation has slowed.

The Scoop also covers news about the energy sector, including the impact of rising oil prices and the development of new renewable energy technologies. These stories provide readers with a comprehensive overview of the current state of the energy market and the challenges it faces.

The second section of the Scoop provides an in-depth analysis of the news stories. It includes expert commentary and insights from industry leaders. This section is particularly useful for readers who want to understand the underlying causes and implications of the news.

## MARKET WATCH

The Market Watch section provides readers with the latest news and information from the world of finance and investment. It includes reports on stock market performance, bond yields, and other financial indicators. The stories are presented in a clear and concise manner, making them easy to read and understand.

One of the key stories in this section is the report that the S&P 500 index has reached a new all-time high. This is seen as a sign of continued economic growth and investor confidence. Analysts predict that the market will continue to rise, but they also warn of a potential correction if inflation remains high.

Another major story is the report that the yield on the 10-year Treasury note has fallen. This move is seen as a reflection of the market's expectations that the Federal Reserve will lower its target interest rate in the near future. This could lead to a rise in stock prices and other riskier investments.

The Scoop also covers news about the cryptocurrency market, including the price of Bitcoin and the development of new digital currencies. These stories provide readers with a comprehensive overview of the current state of the cryptocurrency market and the challenges it faces.

## TECHNOLOGY

The Technology section provides readers with the latest news and information from the world of science and technology. It includes reports on new inventions, breakthroughs in research, and the impact of technology on society. The stories are presented in a clear and concise manner, making them easy to read and understand.

One of the key stories in this section is the announcement that scientists have discovered a new way to produce clean energy. This breakthrough is seen as a major step towards solving the world's energy needs in a sustainable and environmentally friendly way. Analysts predict that this technology will be widely adopted in the near future.

Another major story is the report that a new artificial intelligence algorithm has been developed. This algorithm is able to learn from data and make predictions with a high degree of accuracy. This technology has the potential to revolutionize a wide range of industries, from healthcare to finance.

The Scoop also covers news about the space industry, including the launch of new satellites and the development of new space exploration technologies. These stories provide readers with a comprehensive overview of the current state of the space industry and the challenges it faces.

The third section of the Scoop provides an in-depth analysis of the news stories. It includes expert commentary and insights from industry leaders. This section is particularly useful for readers who want to understand the underlying causes and implications of the news.

## CONCLUSION

The Scoop is a comprehensive and up-to-date source of news and information from the world of business and industry. It provides readers with a clear and concise overview of the current state of the economy and the marketplace. The Scoop is a must-read for anyone interested in the current state of the economy and the marketplace.

For more information, visit our website at [www.scoop.com](http://www.scoop.com).



# LUBRICATION



## THE TEMPERATURE HELPS CHOOSE YOUR OIL GRADE

FOR AREAS LIKE	TEMPERATURE	SAFETY	REMARKS
<p>THE PACIFIC NORTHWEST</p>	<p>SEVERE WINTER 1-10° F to -40° F</p>	SAE 10W, 15W, 20W, 30W, 40W, 50W	IN THE COOL WINTER USE A LIGHT GRADE!
<p>THE SOUTHERN NORTH</p>	<p>SEVERE WINTER 1-10° F to -20° F</p>	SAE 10W, 15W, 20W, 30W, 40W	USE THE HEAVY GRADE IN THE WINTER
<p>THE MIDWEST</p>	<p>NORMAL WINTER SEVERE 1-10° F to -10° F</p>	SAE 10W, 15W, 20W, 30W, 40W	CHANGE GRADE IN SEVERE WINTER
<p>THE SOUTHEAST</p>	<p>WINTER SEVERE 1-10° F to -10° F</p>	SAE 10W, 15W, 20W, 30W, 40W	USE HEAVY GRADE WINTER

# IGNITION





## BATTERY



## COOLING SYSTEM

### WATCH FOR LEAKS

EVERY THREE MONTHS IT CLAPS.  
NEED LIKE WATER PUMP, THE  
MOTOR AND FAN BELT ARE NOW-  
ING ON.





# Dope Sheet

**W**inter says our expert life witch,  
Should catch you after you switch.  
Winter's now -  
Your TM tells **HOW** -  
A whole snail is oft speed by a stitch.



WE HAVE THE WORLD'S BEST EG

# DO NOT FREEZE FOR WINTER-TIME PROTECTION

15-100 (BACK)	10-100 (BACK)	10-50 (BACK)	5-100 (BACK)
15000 15000 15000 15000	10000 10000 10000 10000	10000 10000 10000 10000	10000 10000 10000 10000
10000	10000	10000	10000
10000	10000	10000	10000
10000	10000	10000	10000
10000	10000	10000	10000
10000	10000	10000	10000
10000	10000	10000	10000
10000	10000	10000	10000
10000	10000	10000	10000

DO NOT... 10000... 10000... 10000... 10000...  
 10000... 10000... 10000... 10000...  
 10000... 10000... 10000... 10000...  
 10000... 10000... 10000... 10000...

© 1999

**EQUIPMENT... Take care of it**

AND NOW, BACK TO OUR STORY . . . JOE IS AT THE DANCE . . . WITH A WITCH



. . . AND NOW A WORD FROM OUR JOEY WINTERBORN AGONY . . .

## OVERCOOLING

When engine runs below normal temperature. A coolant water flow . . . If you've got a slush or broken thermostat, cold water is coolant'll only get colder. You'll have condensation and water in the crank case . . . then you've got trouble. Water & Oil whipped together = nasty sludge.

Sludge = clogs filter, restricts oil flow

—blocks and sticks in valve stems and piston rings.

When engine's stopped, condensation freezes and'll block up the oil pump. Ice crystals'll form and block oil flow in the bearings. Carbon accumulates plus water forms varnishlike stuff—will get back out of engine.

TO AVOID ALL THIS . . . KEEP WATER FLOW. THERMOSTAT AND FAN BELT IN TOP SHAPE.

## EXHAUST

When it's all around  
TO BUCK BRACK



## BRAKES

A CAR'S BEST DEFENSE IS ITS BRAKES. SO CHECK THAT **WHEEL CLOCKS**, **WHEEL LAGERS**, **SAFETY** - THE **WHEELS** AND **CONNECTIONS**.



**FLUID** LOSS IS A BIG DISAPPOINTER. BE SURE YOU'RE **TOPped UP** IN THE **WHEELS**. AND YOU'LL BE **DRIVING** FOR THE **BALLGAME**.



## VISION

A **BEAM** FROM **WINDSHIELD** TO **REAR** **VIEW** **MIRROR** **AND** **LOWERING** - YOU'LL **SEE** **THE** **ROAD** **BETTER**.



**VENTILATION** **INSIDE** **YOUR** **CAR** **WILL** **KEEP** **THE** **WIND** **TEMP**.



**FOR** **NIGHT** **DRIVING**...



**COVER** **WITH** **CURTAINS** **OR** **CHAINS**... **TO** **PROTECT** **YOU**.

## FUEL SYSTEM

BEFORE **FLYING** **TO** **GET** **AWAY** **ON** **YOUR** **TRIP**, **BE** **SURE** **YOU** **ARE** **READY**.



**DO** **YOUR** **OWN** **DRIVE** - **BE** **WARE** **OF** **EVERY** **10** **GALLONS** **OF** **GAS**... **ALSO** **WITH** **YOU** **TO** **GET** **IT** **UP**.

**KEEP** **CARBONATOR** **FOR** **TOP** **PERFORMANCE**.



**TRAC** **ANY** **LEAKS** **RIGHT** **TO** **SOURCE**. **SERVICE** **PARTS** **IF** **NEEDED**.

**AND** **MAKE** **SURE** **YOUR** **AND** **WARRANTY** **AGENTS** **ARE** **READY**.

# WINCHES





LATER





### PURRING STORAGE

Dear Half-Breed,

The M17 looks assigned to me and has a 30-caliber ammunition box in the driver's compartment that's supposed to be used for storing the M17 infrared flashlight.

In its present form the box is completely inadequate for this job. What do you think of changing it to include a cover and padded dividers to hold and protect the scope?

Capt. R. E. A.



Dear Capt. R. E. A.,

I think that'd be OK—except for one thing. There's an MPVI in the mill that's supposed to take care of the IR storage situation. It's in use the M17

with a box made specially for the M17 scope. Should be ready soon.

Meanwhile, you should get by OK with the ammo box. To play safe's make sure when the scope is stored it's wrapped in rags, or some other good padding material. That'll keep it from getting banged up from handling around in the box.

Half-Breed

### TRUCK BATTERIES

Dear Half-Breed,

I've got my commander, M1-C17, in my second column and his driver's got the new BA 415-U batteries in each lot. Can you help me?

Cpl. J. R. T.

Dear Cpl. J. R. T.,

About this equipment you can't get batteries for. The BA 415-U is a Signal Corps item, and you draw it from the Signal supply unit that supports your unit. Ask your column section.

And if they can't get you BA 415-U's ask them try for Signal Corps Stock No. 3A-156-1 or 3A-156-1B. These are 130-volt batteries, and one of them will take



the place of the two 44 1/2's. But they use similar batteries, and won't last as long.

There are a couple of Chevrolet batteries you can use if you have to. BA 4 1/2's or BA 5's will fit the battery space in your truck—you can 4 out 'em to get your 100 volts. BA47's (1961) can be used, but you won't be able to put the battery cover back. Or there is one other battery, Signa-Corps No. 44-104-14, which is a 100-volt battery, but it is so big that you'd have to tape it to the outside of the case.

Mind you, all these substitutions involve making the plug-in off the tachometer leads and cobbling up a connection. Be sure you have the permission of your shop officer, and then be real sure you get the polarity right and get your connections well insulated. I'd bet 100 volts will sting if you touch it.



Substituting batteries in this tach is not something to do if you can help it. But it will work if you can't do anything else. Any source of 100 volts direct current will operate the instrument.

If you make any of these substitutions, be real sure you see the plug-in goes right back on the tachometer when you get the right battery.

*Half-Mast*

## BRACKET BUCKIN' LEDGER

Dear Half-Mast,

I've not having trouble with those Mini and shock absorber brackets breaking up at the road-wheel ends.

Tried tack welding the bolt heads to the brackets, but it suggest going the other way—sand the bracket faces free from the steel.

Got any other suggestions?

MC D. W.



Dear MC D. W.,

Here here. Let's lay off the welding and just keep those bolts good and tight and hope they stay put for awhile.

There's a modification program in the mill that'll straighten out the problem slowly by replacing the lower shock brackets—new brackets with split spaced domes. Any welding now would just hamper the program.

Likewise with the front road-wheel-axle supporting.

They've been hearing buzz from the ball, bending machine beds and raising some general apprehensions. You'll be seeing an MWO to take care of this situation by welding the supports to the ball. Buckle up—go jumping the gun before you get the particulars. It's got to be done just right.

*Half-Mast*

## ASK CENTER

Dear Half-Mast,

We're having a heck of a lot of fun with the gas generator regulator (2nd Book No. 6742-7117R1). The same problems are being found on the same regulator, whether only, reset only points and left-hand capacitor are all shot.

Can you idea what's causing it?

J. A. D.



Dear J. A. D.,

Sounds like reset polarity is your trouble. The regulator you describe fits in a "T" regulator which has been run with a housewired generator.

You best bet for preventing this is to always back a generator away once it has been off the track, or has been disconnected and crated. It's so simple, and it can save you a regulator.

Install your generator adapter from the adapter kit (2nd Book No. 17-A-1181) in the generator output connection. Then bring a jumper lead from the vehicle water terminal and attach it briefly to the field link of the adapter (link stand).

That's all, now remove the adapter, look up the harness and you're in business.

*Half-Mast*

## KEEP EM IN YOUR BEANS

Dear Half-Mast,

Everything and everybody says we gotta keep our gas books with the gas at all times, but nobody is making calls to just where. Is there any special place to keep 'em?

Agts B. E. L.

Dear Agts B. E. L.,

Where you keep your gas book depends on what kind of gas you've got. Books for field artillery pieces should be kept in the sight boxes on the gun or mount. For tank gas, keep your books in the pamphlet bag stored behind the tank communication in the turret hatch. Your machine rifle books should be kept in the tool chest.

Books for 48-man or 96-man M2A1 4.2-inch guns should also be kept in the tool chest. The Thompson Magazine was the manual that on the company side of the mount. For the 110-man's, use the tool chest in the position.

What you keep your piece, tape the gas book near the muzzle like your TO's tell you.

A reliable gas book contains is currently being developed for installation on all field and AA Artillery weapons.

*Half-Mast*

## ENGINEERS



By Bill W. Brown, Editor

Make sure you're set for...

## WINTER'S BIG BLOW



Here's a run-down on what you do before Old Man Winter tries to do your equipment in with his tricks:

It'll soon be time for those busy mechanics to run the cover—with Old Man Winter just around the corner.

All of us know how important it is to have that Enginee<sup>r</sup> equipment ready for winter's cold blast.

There are cooling systems to clean and grease with anti-frost; electrical and fuel systems to look over; batteries to pull clean and inspect; engine adjust-

ments to take care of; operator's controls to test; labels to change or brush up; tracks, wheels and claws to examine; power-control units to look after; and thousands of nuts, bolts, screws, gaskets and plugs to adjust and maybe replace.

Then there's a thorough check job for each piece of equipment, spot painting to be done, and generative components to be put on.



Before putting the seal-dresser in, it's a smart to give the cooling system a thorough checkup. Do it while the engine's shut off. Give your machine a good going over for water leaks in the radiator, water hose, water pump, head gasket, drain plugs and drain valve. Take a goodie at the freeze-plugs for signs of rust or corrosion. You'll also want to tighten the cylinder head, adjust the fan belt, make sure the thermostat are working right and clean the radiator fins.



Anything worth doing is worth doing right, so run a checkup on the cooling system—only do it this time with the engine running. Then shut it down and check 'er again. If you find the needs unresponsive, make 'em right away. And

if higher vehicle maintenance is required, don't put that off, either. The sooner you get your equipment off to the shop, the sooner it'll be back to you, motor' and main' to go.

Now you're ready to give the system a good dose and dose 'er one after 'er's a while. Be sure and open all the drain points when you drain her.



When you drain the system, you'll most'n likely find a little scale and rust in the coolant. If you find more than a little bit, fill the cooling system with a solution of cooling system compound, OED STOCK NO. 31-C-2548-508, and run the engine about a half an hour. Flush out the system with plain plain water. Flush the system like this and you'll make your cooling system feel like it's had a good strong incentive.



Once you've done this and are satisfied that everything's in good working order, you're ready to put in the anti-freeze. First pour the right amount of anti-freeze into the radiator. Then add water until the system's almost full.

Remember—don't fill it all the way to the top. You've got to leave room for the anti-freeze solution to expand. It is in the event of colder weather than expected, you'll want to allow enough room to add additional anti-freeze. You'll always want to have enough ethylene glycol in your equipment's system to protect it down to a point 30 degrees below the lowest expected temperature.



Once you've put in the anti-freeze and added water, mix the engine and let 'em get mixed together real good.

## ADJUST YOUR ENGINE



There are a few other things you'll want to check before your equipment is ready for winter. Check the carburetor, the ignition coil and distributor (or magnetos), plug gaps and valve timing. Here's a handy tip—A slightly rich mixture and small plug gaps'll give you a longer season, but your vehicle's efficiency will drop off a little.

## USE THE RIGHT



Your LO will tell you the grades of oil and grease to use for winter operation. On chain-lube points, of course, you'll be using GAA all year long . . . if GAA's what you're using. You'll have to look to the LO for the chain grease you'll need if you're using CG. Follow the LO closely, because they're the best guides you can find to assure yourself of care-free operation.

Take care to flush out the gear cases and pump through grease lines open joints to flush out the heavier summer grade lubricants. But—be particular, avoid the pressure-grease treatment on those closed-bearing bearings lined with grease retainers. Your best bet is to start using lighter lube in these bearings before winter comes around. Then, when winter does arrive, the heavier lubricants will have already been replaced by the lighter stuff.



Drain and flush the crankcases before switching with oil. And if the oil lines carryage on your machine has seen better days, get rid of it and put in a new one.

## BE KIND TO YOUR BATTERY



No matter what your Engineer equipment's going to be doing this winter (crabbing or waiting for warm weather to roll around), if you give its battery all the care they need right along, there'll be less grinding irritation for all concerned.



To give battery a proper going over, pull it off the equipment and give it a good cleaning. Check the case carefully for cracks and leaks. Also check the terminals, brushes, cables and connections.



Batteries should be kept in full charge, especially in cold weather. At half charge you can't depend on 'em to run anything for you. A half-charged battery will also deteriorate fast, and there's always the danger it'll freeze on you. So have your battery fully-charged before you re-install 'em.

Now how about your seasonal items? Whether your equipment's been working or rusted in storage during the hot weather it'll decide how much work it'll take to get it in top shape.

## COMING OUT OF STORAGE



This is easy. Wash all the winter equipment you stored last spring get inspected, repaired, cleaned and painted before it goes into storage . . . and it's been going to its-storage maintenance right along, right!

The equipment's storage tag and its maintenance form will tell you on just how job-ready it is.

## EQUIPMENT TAGGED FOR WINTER STORAGE



SEE US 730-284-20

Equipment that pulls summer-duty duty only needs top-to-bottom care before it's good for the winter.

Make all adjustments and repairs you're responsible for (by the book) and replace any worn parts. If you come up against any repair or replacement jobs that are out of your ability, be sure



a Form 811, Work Order Request, goes out on 'em before you fit up the equipment for the storage shed.

Scratch clean. Take in for the EO. And spot paint it if it's not due a complete paint job.

On winter-used equipment you've got a real cleaning job to cut for rust and freeze to add.

Replace defective gaskets on compression covers to keep out moisture and flames the season around.

## CARE OF ATTACHMENTS



All attachments on equipment that's seeing the winter sun (sawyers, cutters, spraying equipment, etc.) also need

careful inspection, repairs, cleaning, lubing, preservative grease and painting.

And, by all means, remember to keep a close tab on all nuts, bolts, screws, clamps, washers and springs that've loosened from the attachments when



equipment's being prepared for storage. They'll be needed in a bad way come spring-dew change-over a few months from now.



When a piece of equipment's had all the good care it deserves, and you've put your John Henry on its maintenance horn, I'll cut a storage tag and attach it securely where it can easily be seen. Then you're ready to send the piece off to wait its monthly inspection and subsequent recall to duty.

With all that labor earned, you might be set off for winter (except a bit of work, sure, but it's a great feeling to be hot stuff on a cold morning when your engine kicks right over and runs off for a day of maintenance work.

# ARMAMENT

TO TALK BACK TO

## YOUR M42's GOT TO BE



When you're out there, you can't afford to be out of a team with a team fielder when your game isn't straightened. And if your competing right is out of control, it'll give you a lot of time, making your game to get where they're coming. It's a lot to do off-putting something about you game to be straightened and specialized all the way around.

As you fully will know, you can't afford to be out of a team with a team fielder when your game isn't straightened. And if your competing right is out of control, it'll give you a lot of time, making your game to get where they're coming. It's a lot to do off-putting something about you game to be straightened and specialized all the way around.

ALL NEW

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**NOTE:** This procedure applies only to the M42's with the same type competing right, which has the 50 mark of the 20-PPH shown on the speed scale. The old type right has a separate 50 mark at the 18-PPH dot on the speed scale. With the old type right, use the procedure outlined in TM 9-7014.





## SYNCHRONIZED

### SYNCHRONIZE FIRST

Getting your computing rig synchronized with the game is the first step. This has to be done in order to get the computer to do its job through the range of your observation.  
There's more to do—

- 1** CHECK YOUR BIRD DATA BEFORE LEAVING THE  
GUN TOWER.



- 2** GET SOME OF YOUR BROTHERS AND SISTERS  
INVOLVED.



- 3** PLACE AN OBJECT, SIMILAR TO THE  
OBJECTS LISTED HERE, IN THE  
MIDDLE OF THE GUN TOWER  
BEFORE LEAVING THE GUN.



**4** **REMOVE THE BATTERY FROM THE VEHICLE** AND PLACE IT IN A SAFE PLACE, OUTSIDE OF YOUR HOME OR BUSINESS BUILDING.

**DO NOT SMOKE, DRINK, OR EAT** WHILE YOU ARE REMOVING THE BATTERY FROM THE VEHICLE.



**5** **REMOVE THE BATTERY FROM THE VEHICLE** USING THE BATTERY LIFTING AND CARRYING DEVICES PROVIDED BY THE MANUFACTURER. THE LIFTING AND CARRYING DEVICES ARE NOT TO BE USED TO REMOVE THE BATTERY FROM THE VEHICLE.



**6** **DO NOT REMOVE THE BATTERY FROM THE VEHICLE** UNLESS THE BATTERY IS IN A SAFE PLACE, OUTSIDE OF YOUR HOME OR BUSINESS BUILDING. THE BATTERY SHOULD BE KEPT IN A SAFE PLACE.



**7** **DO NOT REMOVE THE BATTERY FROM THE VEHICLE** UNLESS THE BATTERY IS IN A SAFE PLACE, OUTSIDE OF YOUR HOME OR BUSINESS BUILDING. THE BATTERY SHOULD BE KEPT IN A SAFE PLACE.



**8** **DO NOT REMOVE THE BATTERY FROM THE VEHICLE** UNLESS THE BATTERY IS IN A SAFE PLACE, OUTSIDE OF YOUR HOME OR BUSINESS BUILDING. THE BATTERY SHOULD BE KEPT IN A SAFE PLACE.



**9**

YOU CHECK-OUT A STRIP FROM THE 100-FT. CARTRIDGE OR OTHER SUPPLY. MAKE SURE YOU'VE GOT THE CORRECT TYPE AND THE CORRECT LENGTH. A CARTRIDGE OF THIS SIZE IS OK.

**10**

NOW, CHECK BACK TO LEFT AND CHECK TYPE OF CARTRIDGE. IT MUST BE THE TYPE TO MATCH THE SET.

**11**

NOTE HOW THE FULL CARTRIDGE POSITION OVER THE STRIP. THIS STRIP WILL BE ABOUT TWO INCHES TO TWO AND ONE HALF INCHES LONG. IT'S IN THE POSITION.

**12**

IF IT SHOWS THE APPROPRIATE POSITION, THE FULL CARTRIDGE POSITION WILL BE IN POSITION WITH STRIP. THIS STRIP POSITION.



When you reach the point where you get the same quadrant reading on all three of the leveling-pole position. (Within two mile up to 40 degree elevation and four mile up to full elevation) your computing eye is guaranteed.

If you try and try and try and just can't do it, muffy Graham. Something's wrong somewhere.

But, if everything's on the ground up as far, you're ready for something.

## PROOFREADING

**1** IN CASE OF THE UNEXPECTED, YOU CAN STOP PRINTING ON THE ORIGINAL DESIGN FILE. THE DESIGNER SHOULD CHECK THE FILE FOR ANY BOLD CAPITALS. YOU SHOULD NOT HAVE BOLD PRINT FOR THE OTHER SIDE OF THE PAPER.



**2** IF YOU WANT TO PRINTING, YOU CAN "PRINT" THE FILE AND GET THE PRINTING DONE BY THE END.



**3** IN THE PAST, THE DESIGNER OF A FILE SHOULD NOT PRINT THE FILE.



**4** THE DESIGNER SHOULD CHECK THE FILE FOR ANY BOLD PRINT OF THE FILE.



**5** YOU CAN PRINT THE FILE, BUT YOU SHOULD NOT PRINT THE FILE. YOU SHOULD NOT PRINT THE FILE.



**6** YOU CAN PRINT THE FILE, BUT YOU SHOULD NOT PRINT THE FILE.



- 2** REMOVE THE TIGHTENING SCREW FROM THE LOWER MOUNTING BRACKET. REMOVE THE LOWER MOUNTING BRACKET FROM THE LOWER MOUNTING POINT.



- 3** REMOVE THE LOWER MOUNTING BRACKET FROM THE LOWER MOUNTING POINT. REMOVE THE LOWER MOUNTING BRACKET FROM THE LOWER MOUNTING POINT. REMOVE THE LOWER MOUNTING BRACKET FROM THE LOWER MOUNTING POINT.



- 4** SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT. SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT.



- 5** SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT. SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT.

- 6** SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT. SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT.



- 7** SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT. SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT.



- 8** SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT. SET THE LOWER MOUNTING BRACKET TO THE LOWER MOUNTING POINT.



**12** WITH STAINLESS STEEL BLADES IT'S  
EASY TO SHARPEN AND, BEING MADE OF STAINLESS  
STEEL, IT WON'T RUST.



**14** STAINLESS STEEL IS THE BEST FOR  
CUTTING. THE STAINLESS STEEL IS THE  
BEST AS IT WILL BE THE SHARPEST.



**15** THE  
BEST  
FOR  
CUTTING  
IS  
THE  
BEST



**16** THE BEST FOR CUTTING IS THE BEST  
FOR CUTTING. THE BEST FOR CUTTING  
IS THE BEST FOR CUTTING.



**17** THE  
BEST  
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CUTTING  
IS  
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BEST



**18** THE BEST FOR CUTTING IS THE BEST  
FOR CUTTING. THE BEST FOR CUTTING  
IS THE BEST FOR CUTTING.



**19** POINT THE GUN AT THE TARGET AND SET THE RANGE DIAL AT THE TARGET RANGE.



**20** POINT THE GUN IN RANGE AND CHECK TO SEE THE TARGETING TAG IS AT THE ZERO.



**21** POINT THE GUN AT THE TARGET. CHECK THE TARGETING TAGGING MARK AND ADJUST THE RANGE DIAL TO THE POINT OF BULLS-EYE ALIGNMENT WITH THE TARGETING TAG.



**22** POINT THE GUN AT THE TARGET. CHECK THE TARGETING TAGGING MARK ALIGNMENT.



If your your computing sight should be synchronized and your gun bore sighted to the 90 degree, and you can take sight back to any dirty hole that comes your way.

With this you the 90° bore sight and muzzle bore sight are removed before closing the barrel and top cover.

In case you didn't catch it, the big difference between this system and the one in your 1A is the setting of the clock-and-dial ball. The 1st way to set the angle-of-flight at full aim, which is 90 degrees. This is OK for the old computer, but there aren't many of us around.

With this system you set the angle-of-flight at 50 degree aim. The difference is about four mils, so you're better off with this method if you have the correct sight.



## URGENT! MWO FOR BAZOOKAS

There's a big deal in the mill for your MWO market leaders, so keep an eye peeled for MWO Ord 041-W1. It'll give you a new connector, back-grip assembly, plus some bore-sighting needles on the main defense. It'll also convert the M28 into the M28AL and the M28B1 into the M28A1B1. The work'll be done by Ordnance, and it's marked "Urgent."

## RECOIL OIL GUNS

Some of the 120mm which boys have been complaining that the new recoil oil gun, Gen. (Mk)2, oil, recoil, hand lever operated, 41-G-1548-150 doesn't have the oop to push the big AAA weapons into battery.

What they need is this new check valve on their recoil oil gun. It's valve, check assembly, Service/Warner No. C469548 with Bending, Service/Warner No. 45120. The whole thing's carried under Federal Stock No. 453040-17004. Ordnance can get it for you under MWO Ord J17-W1. The MWO is dated May 51 and it's classified "Urgent."

## EXTRACTORS MODIFIED?

The changes are the original extractors on your 90mm ack-ack guns were modified like it says in MWO Ord D19-10 (M1 series) or MWO Ord D19-W15 (M2 series). Your gun book will give you the specs.

But here's the news, huh? Could be that an unannounced contractor has dropped in on you since the MWO was applied. The modified extractors, both right and left, have a flat surface ground on the extractor legs. See in Fig. 1.

So give your extractors the once over to see if they have the flat surface on the legs. If they don't, here's Ordnance's price 'em down.

FIG. 1  
RIGHT AND  
LEFT  
EXTRACTOR



1/4  
3/8  
1/2  
5/8  
1  
1 1/8  
1 1/4  
1 1/2  
1 3/4  
2

FIG. 1



## Connie Rodd's BRIEFS



### *Clean that wall*

Before you take a spark plug out of your vehicle's engine, be sure to clean out the plug well. If you've got any sand, dirt or trash in that well, it'll fall right down in the cylinder and really foul up your engine. So—clean that well.

### *Tight hatch? Hatch!*

Come be tight to be right. Any good technician'll tell ya. A loose hatch-cover flapping around over rough terrain can lead to gas-leaks—or somebody's skull. Tighten hatch cover locks there, friend. Be tight—your hatch-cover's tight—span or die—but tight. Right!

### *Just a reminder*

Next time you shuffle through the C.M.P. (C.M.P. Truck Manual), stick around in an open spot to remind the next guy that this vehicle uses an 18-mm spark plug (Ford Stock No. F004-058 F002).

### *No rusty load*

Here's a way to get rid of that rusty load you might be carrying around. The next time you park your dump truck, elevate the dump a little bit. That way water won't accumulate and the dump will stay free of rust. It only takes a few seconds to set a block between the dump body and the truck chassis . . . and the water'll run right out the back. It's just one of those little things that'll help your equipment last longer and do a better job.

### *ought to be a law*

Yeah, I'm against guys who play with loading-water handles. They should leave the valves partly closed, causing leaks all over the place. Better check the handle every day, or trip ticket set-up time, to make sure it's pushed in tight, and while you've got the head up, see if the valves are wide open.







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