

**PS**  
★

THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY

Issue 24  
Series 1954





## DURING INSPECTIONS YOU'LL BE BATED ON

## SERIOUS MATTERS

(AND NOT OTHERWISE "SERIOUS")

Dear Half-Bro:

Apate and apate the boys cry for a standard of inspection. They cry they don't have a damn other standard's use on it, if only the bathroom, group, post-conviction and performance inspectors will agree on what it is and what it was meant by the regulations.

They also want a method of calling the difference and showing the error between a minor delinquency—such as a loose or missing glass-compartment latch—and a major delinquency—such as being seriously hurt or ill or worse. Or any other real delinquency like loose steering parts or leaky double doors—the sort of delinquency which is a real hazard to the continued safe operation of the vehicle.

As of now, on most inspections, all slip event alike, and the guy who never explains the essential checks just as that one small job at the wheelbarrow who drives like every day since the vital parts.



EPC, D. S. H.



**THE COVER:** The engine compartment is a hot job and there is a lot. The two who show the right kind of attentiveness and responsibility will have the highest chance—head and legs.

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EE Magazine covers your ideas and needs today, and is glad to receive your questions. Just write to EE Magazine, Garden Place, Garden, Michigan.

## NEW GUN BOOK

Keep your numbers in this  
Little Brown book and you'll —

# ALWAYS HAVE A SURE THING



Everybody's heard about the "Little Black book" filled with big deal info, but we're gonna tell you about the little brown one.

Books do the same thing for you, but they cover different types of equipment—and performance.

You know how it is with the little black book. There's at least one guy in every outfit who tells you he has the book—do his every phone number you ever heard of, complete with gun performance, capacity, limitations, and technical detail (if needed, that is).

Some may think this here new gun book (Weapons Record Book). It's chock full of the greatest and closest to giving you the right one just when you want it—what kind of shape that's in.



The way it does that is by giving you—**two** books. The secret is in bringing you **two** — but **two** books. These ones are stapled together with you can even **both** in **one** book. Here it's all too simple! Part I and Part II, naturally.



No.	CALIBER		TYPE	MFG. DATE		MFG. NO.		SERIAL NO.		REMARKS
	MM	IN		MM	YY	MM	YY	MM	YY	
1	135	MM	HOW	1942	01	2187	01	2187	01	2187
2	135	MM	HOW	1942	01	2187	01	2187	01	2187
3	135	MM	HOW	1942	01	2187	01	2187	01	2187
4	135	MM	HOW	1942	01	2187	01	2187	01	2187
5	135	MM	HOW	1942	01	2187	01	2187	01	2187
6	135	MM	HOW	1942	01	2187	01	2187	01	2187
7	135	MM	HOW	1942	01	2187	01	2187	01	2187
8	135	MM	HOW	1942	01	2187	01	2187	01	2187
9	135	MM	HOW	1942	01	2187	01	2187	01	2187
10	135	MM	HOW	1942	01	2187	01	2187	01	2187

## PART I

# CARRIAGE OR MOUNT

Let's take a look at the **carriage** (the thing to remember is that Part I goes with the carriage or mount barrel. Don't mix it up) but it's inside the cover. You'll need to make note on page of the inside pages in Part I. (You'll also note with the carriage or mount used in a **Carriage or Mount of . . .**)



## SUMMARY SHEET



The first book you'll come to is the **Summary Sheet**. Keep it complete and up-to-date and it'll tell you the whole story of the weapon at any time. Our book and you'll know how many tubes have been used, the age of your equipment parts — questions like that.

2 3

## ASSIGNMENTS AND SERVICE



A MAN'S GUTS CAN BE A WEAPON... BUT HIS BRAIN IS HIS GUN.



ANY OF COURSE IT'S ALWAYS GOOD TO KNOW WHO DID WHAT TO WHO, AND WHY.

ROSTER OF ASSIGMENTS		
DATE	ASSIGNMENT	MAN
Aug 6 1958	"B"	JOE JONES

MAN'S SERVICE RECORD	
Aug 6 1958	MAN: JOE JONES ASSIGNMENT: "B" STATUS: ON DUTY
Aug 12 1958	MAN: JOE JONES ASSIGNMENT: "A" STATUS: ON DUTY
Aug 19 1958	MAN: JOE JONES ASSIGNMENT: "C" STATUS: ON DUTY
Aug 26 1958	MAN: JOE JONES ASSIGNMENT: "D" STATUS: ON DUTY

...AND REMEMBER, THERE'S ONLY ONE WAY TO GET THE JOB DONE - GO TO THE GUN... OR A GOOD-OL' SYSTEM.

PART II  
**CANNON**  
**(TUBE) DATA**

Here's where the big improvement comes in... when you'll be getting a new cannon tube and knowing! kind of tube data when they come or savings... This data gives you a special service for the cannon tube.

You'll get a new copy of this section (that'll save time) right a new tube or cannon.

Send the money like we show you on the right.

REGISTRATION CARD  
NO. 100-8-10-1

NAME: Joe Jones  
ADDRESS: 123 Main St.  
CITY: New York  
STATE: N.Y.  
ZIP: 10001

DATE OF BIRTH: 1/15/20

NO. OF THIS CARD TO BE SENT TO: 1

REGISTRATION CARD (CONTINUED)

NO. OF TUBES: 1000  
NO. OF CANNONS: 100  
NO. OF TUBES TO BE SENT TO: 1000

DATE OF ORDER: 8/10/58

NAME: Joe Jones

ADDRESS: 123 Main St.

CITY: New York

STATE: N.Y.

ZIP: 10001

DATE	NO. OF TUBES	NO. OF CANNONS
8/10/58	1000	100
8/17/58	1000	100
8/24/58	1000	100
8/31/58	1000	100
9/7/58	1000	100
9/14/58	1000	100
9/21/58	1000	100
9/28/58	1000	100
10/5/58	1000	100
10/12/58	1000	100
10/19/58	1000	100
10/26/58	1000	100
11/2/58	1000	100
11/9/58	1000	100
11/16/58	1000	100
11/23/58	1000	100
11/30/58	1000	100
12/7/58	1000	100
12/14/58	1000	100
12/21/58	1000	100
12/28/58	1000	100
TOTAL TUBES TO BE SENT TO: 10,000		
TOTAL CANNONS TO BE SENT TO: 1,000		



EVERY TUBE IS MADE TO ORDER... AND YOU CAN BE SURE OF IT... THE MORE YOU ORDER... THE MORE YOU SAVE... AND YOU CAN BE SURE OF IT... THE MORE YOU ORDER... THE MORE YOU SAVE... AND YOU CAN BE SURE OF IT...



NO NEED TO WORRY... WE'LL TAKE CARE OF YOU... AND YOU CAN BE SURE OF IT... THE MORE YOU ORDER... THE MORE YOU SAVE... AND YOU CAN BE SURE OF IT... THE MORE YOU ORDER... THE MORE YOU SAVE... AND YOU CAN BE SURE OF IT...

# NEVER TEAR OUT ANY PAGES, NO MATTER HOW BADLY YOU NEED PAPER.

SEND ANY ORDERS YOU SEND TO THE CHIEF OF INFORMATION, ATTN: ORDER, WASHINGTON 25, DC.



These duplicates are needed when Deluxe distributes the valuable information you accumulate in the year book.

YOUR INFORMATION RECORD			
DATE	TYPE OF ORDER	AMOUNT PAID	AMOUNT PAID
11 Jan 1955	6	6.00	6.00
11 May 1955	175	6.00	6.00
11 Aug 1955	175	6.00	6.00
Sept 1955	175	6.00	6.00

PLEASE NOTE: THIS VERY IMPORTANT INFORMATION CONTAINS IN TWO COPIES IN BOTH LEFT AND RIGHT HAND AND CONTAINS MOST PAGES.

YOUR INFORMATION RECORD	
DATE	TYPE OF ORDER
11 Jan 1955	6
11 May 1955	175
11 Aug 1955	175
Sept 1955	175



IF YOU'RE NOT ANY MORE, YOU NEED TO ORDER THE NEW INFORMATION RECORD (175) (SEE ORDERING)

## How To Take Care of Your Air Bronny Book

When the tube (or tubes) is to be replaced, Part II is taken loose and goes with the tube (or tubes). When the tube (or tubes) is condemned, its Part II is sent to the Office, Chief of Ordnance, Field Service Division, ORDAM, Washington 25, D. C.

You gotta make sure you get the needed data out of it, though, before it gets into your hands. You had better summarize the tube in Part II on the Summary Sheet in your permanent Part I which stays with the mount or cartridge.

If Part II becomes filled before the cartridge or mount is condemned, just make additional copies of Part I so it is not needed there. They'll all stay together, right with the cartridge or mount.

What good gunner would lose a weapon record book? None, of course, but it's been known to happen. It sure isn't a real situation that'd fall on you, here's the only way out. Notify the Ordnance officer who's charged with maintenance of your weapon, get a new book, record all the information you can in the new book, and estimate the number of rounds fired from the tube you have by computing the pathway gage reading with the right curve as shown in TR 9-1500-2.

Information on any happening of unusual importance concerning the weapon can be recorded in the book.

This new style of gas book replaces the one you've been using in

Form OR 1625. You'll use the old gas book as long as you've got 'em.

When you get your old style book filled up, staple it to Part I of your new one so they'll stick together. Then, the first time you get rid of a tube (or tubes), summarize the data in the 1625 and your Part II, and enter your summary in Part I. After you do that you can send back the 1625 and Part II of your new book in with the tube (or tubes) you are replacing.

If you're from Missouri, you can look in BR 776-115-20 for this data. This new gas book is an ADI production, distributed thru Ordnance.

### HERE'S TH' NOMINCLATURE



**WEAPON RECORD BOOK, PART I, OR FORM 1625 STOCK NO. 2003-840100 WITH THE MOUNT ALWAYS**

**WEAPON RECORD BOOK, PART II, OR FORM 9-15-1 STOCK NO. 2003-840100 WITH THE TUBE ALWAYS**

**WEAPON AND TUBE GAGE WEAPON RECORD BOOK, STOCK NO. 2003-840600**

So there you are—your new style Air-Bronny Book. Keep track of all your numbers. That way when you gunners are ready to run one home, you ain't have to wonder if she's gas hot time.



#### HOT TIPS (ON HEATERS)

Maybe you're boiling under a down run right now, but drop everything and take a quick gander at your personal-leisure manifold. That's the metal casing mounted on the top of the hull, connecting the exhaust tubes to the ex-

haust lines inside (Fig. 1). If yours is one of the few M48's that slipped through with the manifold painted, get that paint off. When it's heated to give off enough fumes to play both with any body tankman while borrowed-up,



You can get rid of the pain by wrapping or bandaging it off. Or, let the heater run for at least eight hours; that'll heat out the fumes just the bothrooms point. But the main thing is to get it done now. A technical bulletin will tell you all about this.



Now a word about operating the heaters. You don't have to shut the main-airy switch to get here. However, the poisoned-heater emergency-switch (located just to the left of the heater control-panel) must be on, as

well as the power (ON-OFF) switch on the heater control-panel (Figs 2 and 3).

But it, this emergency switch should be left on all the time—except when such emergencies as fueling or empty gas tanks demand that all power be cut off from the heater units.

You never use the emergency switch just to turn off the heaters when you're through with 'em.

Here's the reason. These heaters are self-purging. When you shut 'em off at the power ON-OFF switch (as you should), the fuel flow stops at once. But, a delay-action thermal switch lets the blowers run for two or three minutes longer—so they'll cool the heater and kick out any unburned gases left in the unit.

If you flip off the emergency switch, you override this delayed action and immediately cut-off all power to the heater units—including the blowers. Which leaves your heaters in a dangerous, unpurged condition. You'll see this in the revised MHE TM.

**TAKE A GOOD LOOK AT YOUR MHE HEATER CONTROL PANEL—YOU MIGHT HAVE EITHER ONE OF THESE...**





## TOUCH or TALK

If you're liked because your MAB is minus a tachometer, may as well quit yet reliable—and learn to live without it. A little practice and you've got the "touch" or "feel" of the engine speed you need to know.



One speed that here can be reached on calculation, though, is Low Idle (600-RPM). Hook up your electric tachometer and make this setting at the idle speed adjusting screw on back carburetor.

Other speeds you can learn to estimate . . . with a little practice.

High Idle, used for warm up, should be between 1800 and 1900-RPM. You learn to feel it as about the highest speed the idling engine takes without feeling like it wants to take off like a big gas fired jet with the hand throttle for the five minute warm up.

Normal Idle is in between low and high at about 800-RPM, or a little more.

This just with the hand throttle whenever it's necessary to park your buggy for a while with the engine running. At Normal Idle the should warm over free and easy, keeping everything ready for a take-off. Long idling at low Idle (throttle all the way in) will heat up your plug quick.

To get the speed you need for mag-ness checks, set about half your throttle plus or whatever throttle setting your tach takes to give you the 1000-RPM's.

For best results on a mag check—without benefit of tachometer—use an "inside" man. Have a buddy bend an ear to the exhaust for signs of misfiring as you check the mag's, first one bank and then the other.

## SEVERAL HUNDRED

When you get your MAB tank OVM and remove the driver's parachute from its box, make sure you don't leave its seal (wingsake) in the box. Some of these jobs slipped through without having the seal removed in the 'mags as it ought to be. If yours is one like that, make some custom rubber cement and with that seal in place (Fig-1)



### DRIVER'S ESCAPE HATCH

Your M48 tank may have either of two types of driver's escape hatches. On the earlier models the hatch release lever pulls upward and the door drops out. On the newer ones you push the lever sideways (Fig. 1).

Good idea to get familiar with the hatch on your particular tank. Some time you might need to escape in a hurry—and the time you'll lose by fiddling on the lever in the wrong direction may make the difference.

This page will be in the next revision of T805-T1805.



### TRACK END-CONNECTORS

You can now use "point-tye" or wedge-bolt assemblies on the M48 track end-connectors. Some of the early types fit over an bolt head lock is pointing from the front end-to-front locking direction.

The new connector assembly now fits on a different set-up on wedge bolt which engages a drilled-and-tapped

wedge, and a counter-nut to protect the wedge-bolt head.

This latest M48 connector is not recommended for use on the M47. Being "tapped up" to allow for the counter-nut makes it too far for the present M47 spacers. However, the new bolt-wedge assembly is interchangeable and is much more satisfactory than the old type with the short-lived wedge nut.

### CONNECTOR SWAPS



### WEDGE SWAPS



## TANK DEL-CAP LOCK

Dear Editor,

We've had some failures on Commercial AV-1790 engines from loose or oil-filled caps come off and let loss of oil change into the crankcase. We blame this on the spring disk in the cap falling to a point of engine vibration. But, also, sometimes the drivers are not hanging in so that the cap hangs enough to be sure it's down tight.

I saw your suggestion for a lock for L-19 oil-filler caps in PH, and we applied it to our tank engines as shown in the sketch (Fig. 21). Might be that this would help someone else.

Joe Walker and B. Casella  
Aberdeen Proving Ground, Maryland



(Ed Note—We don't see why this wouldn't be a good idea. M/V work on the AV-1790 engines, too.)

## M&B HOOKS

Dear Editor,

When running our M&B tanks in deep mud we have found the hook shown below (Fig. 7) to be useful for getting heavy chunks of mud out of the suspension systems. We make them out of mild-steel manufacturing rod or similar steel rod, about 16 inches or 2 feet long, with a flat blade on the hook end and a T-handle.

Also we have found that after a couple of days of operating in real sticky mud, it pays us to check the track support-roller bearings. If the mud is mean and sticky enough, the shape of the hull sometimes forces it past the oil seals and into the support-roller bearings.

Captain Mark  
F. Wood, Texas



(Ed Note—That's good idea to stop muddy water.)

## Connie Rodd's

"WHAT'S THE BEST?"



### Missing it miss

A lotta you fellas are missin' a miss when it comes to an engine that's missin'. Saw some guys crank out spark plugs, points and distributors—in even cheaper combinations. And did they miss it? Well, had the miss!

All these parts and energy're wasted in a lot of cases. They're not hooking in the right place first for that tricky miss.

When you go on the make for a miss—in the engine—check your spark plug rubber lines. The rubber casing on a lot of these plug cables is tearing up with cheap pin-bushes in it. The pin-bushes are almost invisible, but they let the spark jump clear to the ground inside the chassis and cause the miss.

#### OLD'S NEW

1



FOR A CLOSE LOOK, SEE PAGE 106.

GET A FREE 24-HOUR-OR-LESS  
QUOTE WITH (800) 750-5445  
OR (800) 750-5445



2 THE TOP OF THE BOOT  
AND THE POINT  
OF A TAIL.



3 THE RED BOOT BOOT  
IN A CORNER FROM  
THE POINT TO  
THE DISTRIBUTOR.



4 THE RED BOOT BOOT BOOT BOOT BOOT BOOT,  
THE BOOT BOOT BOOT BOOT BOOT BOOT ... IT'S  
THE BOOT ... BOOT BOOT BOOT BOOT BOOT BOOT  
BOOT BOOT BOOT ... IT'S BOOT BOOT BOOT BOOT  
BOOT BOOT.

You may have to replace the silicone  
down-bow (H8004-7510545), pin  
(H8004-7510540), sleeve (H8004-  
7510530), and compression spring  
(H8004-7510501).

## *Check your 5-tonner's 40*

It's not necessary to clean and oil your 5-tonner's wind-jaw clutch at 1000-mile intervals like it says in *TD 9-5032*. This is a direct link to wheels with exposed clutches. The new models have the clutch enclosed in the gear case and are self-oiled by the gear-case tubes.

Change the capacity of cranes by double-oil tank to read "41 gallons." Check No. 14 on back under *Notes*.

Leave a note about this to the next guy will know.

## *Deep boring*

Deep try to drill a 3/16-inch hole in 3/16-inch rod like *TR Ord 541* will! You'll never make a crack crack-sprocket wear-gaps that way.

Instead of the 3/16-inch rod, use one that's 1/8 inch in diameter, standard from *Ord Book No. 3000-0411000*, and you'll have it made. You'll see this dept. in a new version of *TR Ord 5-25*.

## *Exploded discharge*

When your vehicle's killing a hole faster than normal and its engine acts like it's got the wrong-year belt, it could be required in the vacuum-pump discharge. Added to this rough life,



you'll probably find it using too much oil and see it half used puff blue smoke out of its rear end.

But its smoke issue it's not something like a loose wastebank ventilating valve or such, disconnect the vacuum line between the pump and engine and see if there's any oil in the pipe. If there is, and the engine runs smoother with the line off—you've had it.

Otherwise fix the life you need to rebuild your pump. All you gotta do is turn in the one you've got for another and they'll take care of the rest.

## *Pinpoints*

A Jeep with a loose belt is soon caught with its pants down. Unless its fan belts are tight enough, the Jeep's generator and water pump aren't going to put the necessary oomph into their jobs.



And drawing those belts too tight isn't good, either. That puts a strain on the bearings of both those units and that'll cause leaks as well as a rebuilt job for the water pump—worse rat your water off.

The *2000* and '41 have a deep V in the pulley system, and could stand lower fan belts than a system more tightly packed. But get it too loose and the belts soon get frayed and glazed and burn blue. Misney squeak from under the hood will be your warning to draw in your belt.

Keep your eyes and ears open for loose belts. Especially on vehicles like the M35 and '41, with a matched pair of fan belts. What often happens is that when one belt goes bad, men change it for a new one without changing the other. Then, since belts stretch, you soon have one tighter than the other.

Whenever you have a vehicle with double belts, replace them both at the same time if you can.



And stick to the adjustments called for in the T37's—1-inch deflection on the T37 and 1 1/2-inch on the M3A1 (Fig. 1). With it, those parts should be going around together for a long time.

### *The name's the same*

Some people have been misled at their unrequited infatuation with IHC's CTRECs, string-riding rigs, and war-

dering, when the belt—'tain't the same vehicle at all. The name's the same, but that's about as far as it goes. You're not just seeing things, either, or eyes.

These vehicles, made by International Harvester and Ford Machinery Corporation, got a giant-size change during production. All the vehicles were made 'em completely different vehicles—al most.

For the most part, the big change was made starting with IHC Vehicle Serial No. 171, and FORD Vehicle Serial No. F1427.

So don't slip if you find that your particular buggy goes some of its changes before their serial number break-points. Take the gas tanks, for instance: The new gas tanks on the earlier jobs were replaced by new, larger gas tank on the later models . . . but . . . you'll find that some IHC's before Serial No. 177 jumped the gun and came out of production with the single gas tank. That's the way it goes.

A new Dad 7 IHC for those 177's is in the works and will identify parts by vehicle serial number. It ought to straighten out the whole forced-up situation for you. In the meanwhile, if you got questions on 'em, write to Bell-Bliss.



HYDRA-MATIC TRANSMISSIONS

# WHY BEAT THE DRUM

IF THE BAND'S CUTTA TUNE



— Until the drum band in your GMC automatic transmission gets itself accustomed to the drum, it's going to need an adjustment check—often.

This is mighty important to the life of the transmission. Here's how you do the drum check and adjustment.

You make the first check and adjustment to drum as you receive a new truck.

The second is after you put 200 miles on the buggy and it's just as important as the first. The next is at 500 miles, then—long after first 100 miles the band and

drum are going thru the rub-in and seating period.

The drum . . . after 1000 miles of operation you again check the band and adjust if it needs it. It's a good idea to specify procedure from here on—in, depending on operating conditions. Do it at least after every 1000 miles of operation. TB 9-8794-1 (7 July 52) gives you the official dope.

What procedure? Read on and you'll get the low-down on an easy thing—but like you hear it's mighty important.



Under the shift-throw mounting supports, on the left side of the transmission, there's a plug and adjusting-screw. There are the tubes that you start hand in its place.

Clean the indicator-pin plug and all the surface around it. Then run the engine at idling speed, with the gear-selector in F-1 HIGH RANGE position, parking-brake-as-rebrake (locked) for safety.



Unscrew the indicator-pin plug and check to see if the indicator-pin is flush with the machined surface around the hole. You can use a straight edge or your finger to get the feel.



If the pin isn't flush, loosen the adjusting-screw lock-wal. Turn the adjusting-screw until the indicator-pin is flush with the machined surface of the case.



Now that you've got the hand adjusted, you hold on to the adjusting-screw and tighten the lock-wal. Be sure you hold that screw tight or you might have to start an another adjustment.



You've got the lock-wal right. Check the pin again. If that's still flush, put the plug back over the pin—that's it.

And at any time that shifts don't occur like it says in Table VII, page 215, TM 9-115A, the front-hand adjustment should be checked. Of course, if front-hand adjustment doesn't give you the right shift, then you'll have to go to Table IX, page 203, of the same TM to set you straight. The rear-hand adjustment, by the way, is something you don't have to touch—it's automatic.



# BT BATTERIES MAY HAVE THEIR CELLS BAZZACKWARDS



Dept. Somebody mixed their shot.

It seems that a whole slug of the BT batteries found in the old M48 tank which may have one or more of the cells assembled backwards.

Trouble is, since these batteries were made and shipped dry-charged, nothing will show up until the battery goes in service.

So, if you've got any, check 'em. You do see, for the guy who puts the

electrolyte but can find the trouble some ones.

Here's what to look for—look at the cell houses which has the code stamped on it (Fig. 1). The top figure is the shipping date, month by number and year by last digit (M) is August 1955. The next figure is the date of manufacture, month by number, day by letter, year by last digit (M) is June 8, 1955. And the first letter on the third line tells what plant made it.



All the batteries you have in check were shipped between January 1953 and December 1953 (13 thru 12) and were made at plant 2.



Here's how you can check the new charger in use: Take chalk or a piece of lead, and marking on the positive post, mark the proper polarity on each end of each cell. Positive-negative, positive-negative, etc. all the way through to the negative post (Fig. 15).



Then, take your voltmeter and check each cell to be sure that the actual polarity agrees with your chalk marks. Remember to touch the leads to each

end of the cell. If the polarity is reversed, one or more of the cells will ring your voltmeter the wrong way. Instead of reading zero volts, it will try to get off the scale below zero (Fig. 5). And while there is no positive proof that the cells were assembled wrong, it does mean that the polarity is reversed and you ought to turn in the battery for a new one, anyway.

Be real careful in using the voltmeter so you'll always get the positive lead on what's supposed to be the positive end of the cell or you will get the wrong answer.

When you do find a defective battery that hasn't been put into service yet, all you can do is fill out a DEF. (DA 485) and turn the battery in for a new one.

All the known defective batteries of this type are in the group made under contract No. DA 28-113-060-7902 on the data mentioned. The contract number is usually found on the box the battery's shipped in. You can check the polarity of your voltmeter by trying it on a known good battery.



## FOR ALL TRUCKS AND TRUCKS A NEW SWITCH FOR A BRIGHT FUTURE!



To put more light on the subject, to save more money, and to make them easier to install, the double-connector light switches on all 1960-type vehicles (trucks and trucks) are on their last legs. In their place you'll be using the single-connector switch.

Up to now the 6V's have all had two bundles of wires coming up to the light switch on the dashboard. And that switch had connectors on two sides to take the wires from each bundle. But there's been some changes made. The latest vehicles are coming out with only one bundle of wires, and the latest switches have connectors on only a single side.

Now the double-connector switch are no longer manufactured. Which is OK for the latest vehicles. But when you ask for a double, all you'll be able to get is a single-connector switch. (Ded Switch No. 6742-7566000). This switch, which has its circuit breakers on the battery box, is due for replacement by another single-connector that contains the circuit breakers . . . It's Ded Switch No. 6741-7566700.

How to hook a single-connector to an older 6V-vehicle with the two bundles of wires is the problem. But you'll find no trouble making all ends meet by splicing circuits as indicated in Fig. 1.

This method is also followed when using British, Ded Switch No. 6741-7567000, as replacements.

There's one thing more. When connecting the single switch on many of the older vehicles, you'll notice that Line 24 can be connected to a fuse coupler already installed as an extra outlet on Line 16. Without the coupler, all you can do is to splice the two lines together. When you do that, be sure the lines are tightly joined and taped.

You'll be using a lot of it, so you may as well get acquainted with the new set-up now.





**WELL, DOCTOR, WHAT'S YOUR DIAGNOSIS?**

**A CLEAR CASE OF**  
**LOSS OF**  
**CONSCIOUSNESS.**  
**PROBABLY**  
**DU TO A BURST**  
**OF ICE WATER... AND SET ME**  
**THROUGH YOUR**  
**ROOMS?**

**LET'S START AT THE BEGINNING. WHEN DID YOU FIRST HATE YOUR DUMPTRECK?**

**WELL, THE**  
**REASON**  
**IS...**  
**OH, NOW**  
**BLEND ONE**  
**FOR THE**  
**THIRD**  
**TIME?**

**THREATS AND DEATHS TO HAVE**  
**US... WAY MORE THAN YOUR**  
**VEHICLE HAS HAD THE BEST OF**  
**ENGINEERING. A LOT OF HARD**  
**WORTH TO BE IN THE FIELD. IT'S YOUR**  
**STRENGTH TO BE BUILT UPON.**  
**ON THE OTHER HAND, ABOUT**  
**THE NEXT VEHICLE YOU**  
**GET BETTER?**

**I DON'T KNOW**  
**HOW... BUT**  
**WHY?**  
**LET'S GO**  
**AND... A**  
**QUESTION**  
**REMAINS?**

**WELL, YOU**  
**THE HEAD OF**  
**THE ARMY WILL**  
**LETTER... THAT'S**  
**ALL THE BONES**  
**AND THE BONES**  
**WILL COME OUT**  
**TOGETHER.**

**FIRST** (NAME AND ADDRESS?)



DESCRIBE THE KIND OF PERSON OR PERSONS YOU WANT TO GET IN TOUCH WITH.

RESPECTIVE SERVICE NAME	UNIT	ADDRESS
<b>OR</b>		
<p>NAME AND ADDRESS (PRINT)</p> <p>1100 W. 10th St.</p> <p>Minneapolis 10, N. D.</p>	<p>NAME AND ADDRESS (PRINT)</p> <p>1100 W. 10th St.</p> <p>Minneapolis 10, N. D.</p>	

**WELL, I DON'T**  
**KNOW... BUT**  
**THEY**  
**WILL**  
**IT BY?**

**YOU**  
**WILL**  
**WANT?**

**THESE**  
**ARE**  
**THE**  
**ONLY**  
**ONE**  
**OF**  
**THE**  
**WORLD.**



WOMEN-CLUB-CHIEF  
SAYS: "I'M SURE YOU'LL  
ENJOY ALL OF THIS  
MONEY & CASH!"

LOOK UP  
YOUR OWN  
MONEY TO  
BUY THE  
MONEY!



WOMEN-CLUB-CHIEF  
SAYS: "I'M SURE YOU'LL  
ENJOY ALL OF THIS  
MONEY & CASH!"

INTERNATIONAL BUSINESS CO.		NEW YORK
1000 N. BROADWAY		NEW YORK
NEW YORK	NEW YORK	NEW YORK
INTERNATIONAL BUSINESS CO.		NEW YORK



WOMEN-CLUB-CHIEF  
SAYS: "I'M SURE YOU'LL  
ENJOY ALL OF THIS  
MONEY & CASH!"



WOMEN-CLUB-CHIEF  
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NEW YORK	NEW YORK	NEW YORK
INTERNATIONAL BUSINESS CO.		NEW YORK



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LOOK UP  
YOUR OWN  
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BUY THE  
MONEY!

INTERNATIONAL BUSINESS CO.		NEW YORK
1000 N. BROADWAY		NEW YORK
NEW YORK	NEW YORK	NEW YORK
INTERNATIONAL BUSINESS CO.		NEW YORK



# Dope Sheet



**T**his is magic I know, cried our doc...  
 On this form four-six-eight you may show  
 All your problems and trouble....  
 They will fly on the double  
 To the Pentagon, telling your woe.



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



ORDER OF SERVICE		ORDER OF SERVICE	
NAME OF GUEST	TABLE NO.	NAME OF GUEST	TABLE NO.
1	12	1	12
2	13	2	13
3	14	3	14
4	15	4	15

Seated seats reserved.  
Seated seats designated for men; Order of Service is attached.

I ONLY WANTED TO GET SOME FACTORS... IT'S A GOOD IDEA TO GET A COPY OF THE FIRST EDITION... BUT IT WAS COMED IN HANDY!



She took it all the time... (scribble)...

She then turned back... (scribble)...

DA, 1948





Started investigations. Found traces of carbon and lead in the oil and rock layers. Also found traces of carbon and lead and sulfur in particles in the atmosphere over 1000 feet high. Many of these particles appear to be particles were found in the rock layers and also the atmosphere at the same time periods. Arrival of the floating white cloud the region and the rock layers dated as a flow into the continents.



"OH, I DON'T  
KNOW HOW TO  
SAY THAT."



"DON'T YOU KNOW HOW  
TO SAY THAT? YOU  
KNOW HOW TO SAY  
THAT? YOU KNOW  
HOW TO SAY THAT?"

Reproduction's reproduction  
and human beings will  
be extinct.



Reproduction will then be discontinued and people from the day  
will be extinct and people will die. Rebirth will then be stopped  
and people will die. Rebirth will then be stopped and people will  
die. Rebirth will then be stopped and people will die.



"HERE'S A CHANCE  
TO GET A LITTLE  
BIGGER... AND  
TALLER... YOU  
KNOW IT  
SHOULD  
BE EVEN."

"NATURAL! WE USED THE  
VEHICLE AND... ALL A  
LITTLE... THE FORM IS  
FOR EVERYTHING FROM  
GOLD TO SILVER... THE BEST THING  
TO BE IN MIND IS THAT WHILE  
IT WAS NOT GET YOU A FEELING IT'LL  
MADE LIKE A LOT Bigger  
NOW YOU'VE GOT TO GET  
DOWN THE LINE."



"OH I'M  
REALLY  
TO FEEL MY  
OLD FRIEND  
HUMAN HELP  
ONCE MORE.  
I FEEL HAPPY  
NOW THIS FORM."



Those 3-toners —

## NEW BRAKE—WHEEL CYLINDERS



Take an extra look at the brake-wheel cylinders on your 3-ton, 6x6, Blazer vehicle when you're making a replacement. Some of them may come off the line with larger brake cylinders on the rear wheels—and most of 'em are getting the bigger back brake-braggers now.

The larger cylinders have a 2-inch diameter body—the others have a 1.64-inch diameter body. The larger cylin-



OR A MORE CLOSE UP OF THE FRONT VIEW A  
AND IN OTHER WORDS IF YOU WANT TO BE SURE  
OF THE CORRECT MEASUREMENTS, THE LENGTH IS  
1.64", IF THE CORRECT IS 1.64", THE LENGTH IS 1.64".  
NOTE: THIS IS NOT THE BEST WAY TO MEASURE  
LENGTH AND THE CORRECT MEASUREMENT IS 1.64".

ders belong to the rear wheels, only. There isn't enough longitudinal travel on that 3-ton bar bar to make larger wheel cylinders all the way around, so the smaller (1.64-inch) cylinder may be on the front wheels.

You'll find that larger cylinders on the rear wheels will make your braking easier, especially with a full payload. They'll do a little more of the work for you, but don't mistake it for supply window. (The 2-inch cylinder assembly isn't available in stock yet.)

Your problem is being sure that what you've got now doesn't go all switched around. If you already have the 2-inch cylinders on the rear wheels, you might have to use a 1.64-inch assembly (DOD Stock No. G0004100/NOO) for a replacement. If you do, take care of both ends of the axle. On the same side, you want the same size cylinder on the left as you've got on the right, else you might find yourself side-slipping into the nearest ditch when you stomp the brakes. You want the 2-inch jobs on the back if you can get 'em, tho'.

And if at any time you feel uneven braking on your rear wheels, leave pull off the wheels and check to see if uneven shoe drag's into the cylinders already. You can tell the difference by their outside diameters.



### SCRIP-TOP CARB NEEDED

Dear Half-Mast,

We've now got our second set of sealed cans. You gotta punch or cut a hole in the can to get it in.



Each of times we have all left over after receiving our gas. We're always told to keep the left-over oil in a good tight clean can so it doesn't get contaminated. Don't know how we're going to do it if we don't have something can like the oil used to come in. What would you suggest?

R. J.

Dear H. J.,

You're darned right. You need a clean can with a screw top for that extra oil. You can't afford to be taking chances when it comes to sealed oil.

You may not be authorized to order out of 50L F-44, but there's a pretty common substitute can (Dad Rank No. F441761124) listed in it that'll do the job.

Fill out a special requisition giving complete justification as to why you need the can. Give the description and stock number. Turn this requisition in to Ordnance and you'll have a good chance of getting it.

*Half-Mast*

100.....1001

Dear Half-Mast,

You have ordering parts for my M17 fire-control system out of a T17 system catalog. True, a lot of the parts are exactly the same but there's one catch: what about the parts that aren't?



When I send out for a part using the number stamped on the M11 system part—whatever, it either comes back substituted with a T13 part which doesn't fit or does not or something because it can't be identified.

Can you help?

WEDNESDAY, A. D. 5.

Dear Mr. A. D. 5.

New Del T and Del S castings for the M11 system should be hitting the field before many weeks. But you should get an information copy now. They'll be supplied in the M11 brochures before the official copy is printed.

Try this system in getting your parts. Give all the dope you can about the item to be replaced (drawing number, etc.), then add this notation on your requisition: "This unit is for M11, Serial No. ———, and is not to be replaced by Serial No. ——— as used in T13."

This way you won't get the piece stamped with T13 parts you can't use.

*Half-Mast*

#### W113 BUMPS DOWN ALL W112'S

Dear Half-Mast,

It's average only 1.2 miles per gallon of gas on our W113 GMC dump and have to pour a quart of oil in the engine every 125 miles. Being an old ex-military truck driver, this seems like too much.

I would also like to know whether there's a T13 for the M112 and what its number is.

Egt M. G. P.

Dear Egt M. G. P.,

Don't let that gas mileage worry you—that's about average for standard-type trucks. If you can get more out of it, you yourself is the good-driver class.

The first GMC's were a little hard on oil. Later models have a new-type steel oil-ring in the piston assembly which is cutting down on oil used.

How about having the valve guides checked for clearance. Have the wear system checked to see if it's working right. Both of these factors will cut oil if they're not in applicable order.



I've been told that a revision of the W113A, now in process, is supposed to give you the lowest mile on the M113 hydraulic dump system. That revision is to be released as W113B. On the back vehicle you can use the same T13's and M11's that are used for the M111.

*Half-Mast*

#### DRIVE IT

Dear Half-Mast,

A question has come up on the installation of the pressure on vehicles. In the past we've assumed the correct tire pressure on the dash and above each wheel including the spare. I understand

that Oklahoma inspectors no longer require this since the correct pressure is marked on the tank at the factory. What have you got on this?

CW9 J. E. T.

Dear Mr. J. E. T.,

Most of your Mustang vehicles have the tire pressure stamped in a check-plate on the dash, so monitoring them isn't required.

But, if you come across some vehicles that don't have the pressure stamped on the plate, check the vehicle TM for the right pressure. Then by all means let your local assigned permittee advise the tire pressures when the driver isn't with you.



Some tire pressures might be changed before long. Keep a sharp eye and the ol' weather eye open for this. PS Magazine will give you the news when this happens, and then email you on.

*Half-Heart*

#### ONE FOR THE ROAD

Dear Half-Heart,

The pressure, that puts the miles on my '66 Mustang's rear wheel, needs replacing. But I don't know what to ask for. Could you give me its stock number?

Pat G. B.

Dear Pat G. B.,

You probably haven't seen Old 'O' M6L G-144, dated January 1944, on who's what for your M6L's which need them. It's out with the latest supply info.



While Old 'O' of that M6L, his registration maintenance is in the works, I'll take a little while until you see it in print. Meanwhile, get the coverage you need by asking for Volvo, pressure, say, for power divider, Old book No. G-144-00-0440.

*Half-Heart*

#### FRAMED BRAD-7100

Dear Half-Heart,

To have the BSA's (British) dealer plug out of its hole is a good idea. But why not move it near the BSA's instead of in the map compartment?

There's a 1/2-inch hole in the '66's frame near the BSA's (British) dealer that can be made to hold it. Just tapping the hole with a pipe plug will make it unnecessary. And if you moved the hole on the frame to tell the next guy what's what and where, everybody'd be set. It's simpler that way.

Pat L. J.

Dear Pm L. L. J,

When you say has its point, then what about the guy who doesn't know and looks for the plug in the map compartment? He'd probably bust up a new one before looking under the vehicle. (And can you hide when he finds the one you marked away.) And unless the threads are processed right, the plug could run in its tracks. Pipe plugs that really and could set as right you'd wish you'd let it alone.

*Half-Heart*

### STORAGE BOXES

Dear Half-Heart,

I'm people in the line from trying to roll those "junkie" loads out to back their vehicles into the storage boxes on the LH line *MINI* trailers.

It does no good as we get battered down. I've thought about putting a bar around the box, but they would only find that too. So what do you think about moving the line around to other side (Fig 1)?

SFC L. L. M.



Dear SFC L. L. M.,

Sounds like a good idea to move those boxes to the side, but first be sure to get an OK from your Ordnance officer before you do. He'll buy any good idea if it's gonna save Uncle some dough.

The boys had better take care of those boxes, 'cause once the supply's gone, that's it. This box is get being made any more, according to TB 1-8714-2 (8 Mar 54).



# ARMAMENT



## WHAT THE H... ON SUBMACHINE GUNS?

Do you wanna hear a hard tale? There was a soldier who took his pop gun to hand. It wouldn't pop. Why? It was too soft. How could he tell? There was no H stamped on his sliding mechanism like MFG-God 458-WY (12 Sept 51) says the hole in every M1 and M1A1 .45 cal. submachine gun should have (Fig. 11).

The soldier picked up his gun and looked at the hole-and-see? Well, there was no H and he knew it wasn't the hard type, so he simply turned to the back for a new one.

The story should end but there's more... the new one he got still didn't have the H. Big question was... is it hard or not?

Now what did he do? He could have sworn that hole is proto... kept on trying for one with an H, but did he do it? No. He started thinking maybe those holes are being made new without the H stamped on them. Well, he would find out. He picked up his little file and tried to make a dent at the rear notch (Fig. 11). Do you think he stuff the did not. He had a hard hole.

Now if he'd had an old-type sub-machine hole he could have made a dent in it with his little file.

The moral to this story is: H yours is hard, keep it and use it—there's a hole file in that thing regardless of the H. Just use it.



## KEEP YOUR WEIR CLEAN

The teeth that lock the legs tight on your machine gun and crosshairs will trip you out if you're not clean. Loosening the leg enough to let the teeth pull away from one another (Fig. 13) when you're making an adjustment does the trick. If you move the leg with the teeth biting one another, you'll hear them. Change one part you'll squeak or see what you need to move.





# CLEANING MATERIALS AND LUBES

When and where to use

Material	Oil Grades						Reference Study Numbers
	1	2	3	4	5	6	
Water	A	A	A	A	A	A	
Soap & Water	A	A	A	A	A	A	
Gasoline	A	A	A	A	A	A	11-101-201 to 11-101-206 in oil 11-101-207 to 11-101-212 in gas
Oil	A	A	A	A	A	A	11-101-213 to 11-101-218 in oil 11-101-219 to 11-101-224 in gas 11-101-225 to 11-101-230 in oil 11-101-231 to 11-101-236 in gas
Paraffin	A	A	A	A	A	A	11-101-237 to 11-101-242 in oil 11-101-243 to 11-101-248 in gas
Solvent	A	A	A	A	A	A	11-101-249
Wash oil	A	A	A	A	A	A	11-101-250
Wash oil	A	A	A	A	A	A	11-101-251
Wash oil	A	A	A	A	A	A	11-101-252
Wash oil	A	A	A	A	A	A	11-101-253
Wash oil	A	A	A	A	A	A	11-101-254
Wash oil	A	A	A	A	A	A	11-101-255
Wash oil	A	A	A	A	A	A	11-101-256
Wash oil	A	A	A	A	A	A	11-101-257
Wash oil	A	A	A	A	A	A	11-101-258
Wash oil	A	A	A	A	A	A	11-101-259
Wash oil	A	A	A	A	A	A	11-101-260
Wash oil	A	A	A	A	A	A	11-101-261
Wash oil	A	A	A	A	A	A	11-101-262
Wash oil	A	A	A	A	A	A	11-101-263
Wash oil	A	A	A	A	A	A	11-101-264
Wash oil	A	A	A	A	A	A	11-101-265
Wash oil	A	A	A	A	A	A	11-101-266
Wash oil	A	A	A	A	A	A	11-101-267
Wash oil	A	A	A	A	A	A	11-101-268
Wash oil	A	A	A	A	A	A	11-101-269
Wash oil	A	A	A	A	A	A	11-101-270
Wash oil	A	A	A	A	A	A	11-101-271
Wash oil	A	A	A	A	A	A	11-101-272
Wash oil	A	A	A	A	A	A	11-101-273
Wash oil	A	A	A	A	A	A	11-101-274
Wash oil	A	A	A	A	A	A	11-101-275
Wash oil	A	A	A	A	A	A	11-101-276
Wash oil	A	A	A	A	A	A	11-101-277
Wash oil	A	A	A	A	A	A	11-101-278
Wash oil	A	A	A	A	A	A	11-101-279
Wash oil	A	A	A	A	A	A	11-101-280
Wash oil	A	A	A	A	A	A	11-101-281
Wash oil	A	A	A	A	A	A	11-101-282
Wash oil	A	A	A	A	A	A	11-101-283
Wash oil	A	A	A	A	A	A	11-101-284
Wash oil	A	A	A	A	A	A	11-101-285
Wash oil	A	A	A	A	A	A	11-101-286
Wash oil	A	A	A	A	A	A	11-101-287
Wash oil	A	A	A	A	A	A	11-101-288
Wash oil	A	A	A	A	A	A	11-101-289
Wash oil	A	A	A	A	A	A	11-101-290
Wash oil	A	A	A	A	A	A	11-101-291
Wash oil	A	A	A	A	A	A	11-101-292
Wash oil	A	A	A	A	A	A	11-101-293
Wash oil	A	A	A	A	A	A	11-101-294
Wash oil	A	A	A	A	A	A	11-101-295
Wash oil	A	A	A	A	A	A	11-101-296
Wash oil	A	A	A	A	A	A	11-101-297
Wash oil	A	A	A	A	A	A	11-101-298
Wash oil	A	A	A	A	A	A	11-101-299
Wash oil	A	A	A	A	A	A	11-101-300

A - In clean form  
 B - In clean storage (after clean used)  
 C - In laboratory  
 D - In storage (after clean used)  
 E - In storage (before clean used)  
 F - In storage (after clean used)  
 G - In storage (before clean used)  
 H - In storage (after clean used)  
 I - In storage (before clean used)  
 J - In storage (after clean used)  
 K - In storage (before clean used)  
 L - In storage (after clean used)  
 M - In storage (before clean used)  
 N - In storage (after clean used)  
 O - In storage (before clean used)  
 P - In storage (after clean used)  
 Q - In storage (before clean used)  
 R - In storage (after clean used)  
 S - In storage (before clean used)  
 T - In storage (after clean used)  
 U - In storage (before clean used)  
 V - In storage (after clean used)  
 W - In storage (before clean used)  
 X - In storage (after clean used)  
 Y - In storage (before clean used)  
 Z - In storage (after clean used)

\*Always verify it used only for the correct application and equipment application



FOR BETTER CONTROL OF YOUR

## FIRE CONTROL

### POISON FUMES



While everything's going right, the air blower circulating in your M33 fire-control system may be your only lifeline.

But if you have closed air ducts, you might find the blower blower in a pinch.

When these conditions occur, you might find off-duty blower units in the maintenance shop.



Don't breathe these fumes, because the smaller components throughout before you go in to work on the machine.

When you're working, don't breathe the fumes, because they're in the air. You can breathe the fumes, because they're in the air. You can breathe the fumes, because they're in the air. You can breathe the fumes, because they're in the air.

**BE CAREFUL**



### IT'S ONE OUT OF FOUR

The M33 fire-control system uses a hydraulic fluid pump with its hydraulic circulation main system in the acquisition antenna.

There's a drain plug on the lower side of the pump (Fig. 1) that should be removed—if it hasn't been.



REMOVE DRAIN PLUG FROM SIDE OF HYDRAULIC PUMP. REMOVE DRAIN PLUG FROM SIDE OF HYDRAULIC PUMP. REMOVE DRAIN PLUG FROM SIDE OF HYDRAULIC PUMP.



If this plug is left in, fluid will gather around the wiring inside the pump and play back in general.

The other three plugs may not.

Never check that spare hydraulic fluid pump or fire-control main and remove the main plug.

## M-33



### WHEN THE BEEP PURPLE BLOWS



When cold weather starts to creep in, keep an eye on those M33 fire-control tubes in your M33 fire-control system.

To keep these tubes on the cool side in warm weather a blower was added to the low-voltage power supplies to blow air on the M33's. Done a good job in the summer heat, when the air comes cold, the blower might not be down on much of the heat and not be too warm up.

When you turn power on, keep an eye on those tubes. If the color in the tube is a deep purple—you've got a cold tube.

Get a piece of cardboard and use it as a reflector (Fig. 2) in the blower motor. This'll cut the air off the tubes and let 'em warm up.

Watch the tubes. When they get to glowing a deep blue, take the cardboard away from the blower. You've got to be careful here. If you let that cardboard reflect the cold air too long those tubes can get too hot to melt.

The more you worry about getting that tube to the proper warmth is better.

The tube's got to be warm enough to separate the mercury in it and get it off the tube elements. If the mercury stays on the tube elements, and the tube gets into operation, there'll be an arc-over. This arc-over will either blow or seriously damage the tube.

### IT CAN DO WITHOUT IT

Keep yourself protected in a blower. That means firing you can't reach in your M33's protected blower motor doesn't have to be checked. The motor has sealed bearings that don't need your grease.



# SUPPLY & DIRECTIVES



WHEN YOU GOTTA GO . . .

. . . and the temperature's low . . .

be sure your vehicle's ready to take you.

Be prepared for Old Man Winter with cold-weather equipment. Now's the time to check on that personal heater kit, prescription heater kit, and hand-

ign heater kit. If you need 'em and can 'em, get 'em.

Just to make it easier for you—you'll find the Deductor stock numbers of kits for the most popular vehicles listed below. And 800-5-1-1 tells you when and where you can get 'em.

Vehicle No.	APPLIC.	PERSONAL HEATER KIT	POWER PLANT HEATER KIT	HANDIGN HEATER KIT
		Ord. No.	Ord. No.	Ord. No.
800	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01
8000	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01 204-000-01 204-000-01 204-000-01
80000	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01
800000	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01
8000000	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01
80000000	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01
800000000	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01
8000000000	1/2 ton, 4x, 2000 lbs	204-000-01	204-000-01	204-000-01

M-Form No.	VEHICLE	PERSONNEL-DRIVEN KIT	POWER PLANT HEATER KIT	SAFETY KIT
		Kit No. No.	Kit No. No.	Kit No. No.
MS-1000-1000	11 1/2 ton, 4x4, 6-cyl. gas, front drive (Standard for -40°F. Kit good when installed in conjunction with MS-1000-1000)	1000-1000-1000	-----	-----
MS-1000-1000-1000 MS-1000-1000-1000	7-ton, 4x4, 6-cyl. gas, front	1000-1000-1000	1000-1000-1000	1000-1000-1000
MS-1000-1000-1000	Cargo Trailer	1000-1000-1000	-----	1000-1000-1000 Accessories KIT
MS-1000-1000-1000	Cargo Trailer	1000-1000-1000	1000-1000-1000	-----



\*No other kit—either separately or alone or in combination—supplies

\*\*Accessories Kit—Contains all

1. Battery charger cable
2. Engine warm-up kit
3. Engine and coolant
4. New windshield
5. Engine assembly

#### KIT FOR AUXILIARY TYPE VEHICLES

M-Form No.	VEHICLE	SAFETY-DRIVEN KIT	PERSONNEL-DRIVEN KIT
		Kit No. No.	Kit No. No.
MS-1000-1000-1000	1/4 ton, 4x4, front	1000-1000-1000	1000-1000-1000
MS-1000-1000-1000	3/4 ton, 4x4, front	1000-1000-1000	1000-1000-1000
MS-1000-1000-1000	1 1/2 ton, 4x4, front	1000-1000-1000	1000-1000-1000
MS-1000-1000-1000	3 1/2 ton, 4x4, front	1000-1000-1000	1000-1000-1000
MS-1000-1000-1000	5 ton, 4x4, front	1000-1000-1000	1000-1000-1000

If the kit you need isn't listed above, just write us (Big Mail-Box) and we'll get the design for you, pronto. Supply numbers and drop us the names where you'd like to buy them. We'll be glad to supply you with everything you need to get on the way.





# ENGINEERS



## **MORE POWER TO AIR TOOLS**

Whatever your pneumatic tool can do, you can help it do better—all you remember that there's a pressure drop of 5 pounds for every 10-foot length of hose latched on to the air compressor.

Need for a better pump, spray, cut, drill, dig (or whatever-your job), make sure all unneeded lengths of hose are unattached before flipping the switch on your pneumatic tool.

## **YOUR DOZER'S HOSE**

The high-pressure hoses used to connect the hydraulic cylinders and the oil pipes of a hydraulic dozer take an awful lot of punishment. They're made to handle high pressures and all the twisting, turning and stretching that come from following the motions of the blade.

And one of the most important things needed to help this tough hose stand up under this rugged work is proper size

and installation. A hose that's too short suffers quick damage from added strain and binding. And a hose that's too long means there's sag and interference with other moving parts.

To make sure hose replacements on your dozer are the right length, check the dozer's manual.

Proper assembly of the hose is just as important as using the right length. To eliminate all unnecessary binding, twisting and stretching, the hose has got to be free and unobstructed when the stretching tests are lightened.

## **KNOW YOUR 58**

Change 1 to SR 149-30-24 dated 18 May 1964 (your new "Index to Engineering Supply Manuals") is out . . . as got yourself a copy. The 58 itself is dated 15 February 1956, and comprises Part B, Part III, and Part IV of your Eng 1 catalog. The only part of Eng 1 that's still good is Part I, the "Introduction".



# TRACKS IN

A FEW TRICKS TO AVOID



## WHEN WORKING



## HOW TO GET

### HOW TO WINN YE GOAG



DO NOT GO INTO RUTS - USE IT TO

DO NOT GO INTO RUTS - USE IT TO

DO NOT GO INTO RUTS - USE IT TO

# THE MUD



## MUCKY PUSH!

## STRANGE COUNTRY



## OUT...EASY-LIKE



## HILLS (or SLOPE)

DO NOT GO INTO RUTS - USE IT TO



DO NOT GO INTO RUTS - USE IT TO



## DE-PICKLING CHORES

Your first duty to equipment that comes to you from your Supplier supply depot is a serious session with Reg Form 1815—the form that gives a complete run-down on the preservation care the equipment's had, and what must be done in the way of picking off the wraps and servicing, before the equipment's put to work.

DEPRECIATION GUIDE	
GENERAL INSTRUCTIONS	
This schedule and this schedule are printed in connection with nationally standardized equipment and they are to be used to estimate depreciation on standard equipment. It is not intended to be used as a basis for determining depreciation on special equipment. It is intended to be used as a guide for depreciation on standard equipment only. It is not intended to be used as a basis for determining depreciation on special equipment. It is intended to be used as a guide for depreciation on standard equipment only.	
ESTIMATED DEPRECIATION VALUE (PERCENTAGE OF ORIGINAL COST)	ESTIMATED VALUE
100% — 100% (Original Cost)	\$100,000.00
95% — 95% (Original Cost)	\$95,000.00
90% — 90% (Original Cost)	\$90,000.00
85% — 85% (Original Cost)	\$85,000.00
80% — 80% (Original Cost)	\$80,000.00
75% — 75% (Original Cost)	\$75,000.00
70% — 70% (Original Cost)	\$70,000.00
65% — 65% (Original Cost)	\$65,000.00
60% — 60% (Original Cost)	\$60,000.00
55% — 55% (Original Cost)	\$55,000.00
50% — 50% (Original Cost)	\$50,000.00
45% — 45% (Original Cost)	\$45,000.00
40% — 40% (Original Cost)	\$40,000.00
35% — 35% (Original Cost)	\$35,000.00
30% — 30% (Original Cost)	\$30,000.00
25% — 25% (Original Cost)	\$25,000.00
20% — 20% (Original Cost)	\$20,000.00
15% — 15% (Original Cost)	\$15,000.00
10% — 10% (Original Cost)	\$10,000.00
5% — 5% (Original Cost)	\$5,000.00
0% — 0% (Original Cost)	\$0.00

You'll find Form 1815 in a manila envelope marked "Depreciation Guide", attached in some way to your invoice on the equipment. And you won't need a second look to tell you why the chores listed must be done with tender love & care, if your equipment's to have the right start in life.

Lack of proper depreciation buys you both immediate troubles and premature failure of parts, assemblies and maybe even the entire item.



# CONTRIBUTIONS



## IT'S THE AUTO

Dear Editor,

Three right wing-men on the WORA's battery cover could send a good lot of batteries off the deep end. Double everything else, a couple of wing-men are so close to the windshield mount that they scrape your knuckles as well as your patience. Here's a home-made gimmick to solve the problem (Fig 1).



Take an old overage bolt and a piece of tubing and weld the tube near the bolt's threaded end. Then, with three hacksaw blades set together in a frame, slice a slot across the tube's open end. Now lean the bolt in several places and bend it into a speed-wrench. Use over a deep cut, because the job doesn't need much leverage. Pocket it's in the bag.

The tool should be about 14 inches long. That's short enough to fit in the vehicle's tool box and long enough not to bang against the windshield.

WONG Robert B. Carson  
Marik Hollywood, California

(The Note-The least 1/2" are coming out with an overage bolt on the battery-box cover instead of wing-men. For those with the auto, a special tool like yours may be OK for an auto that's got lots of jumps, but it's shorter up a driver's tool box. It has extra strength time and time may be the answer.)

## LIFTING THROUGH CURVE

Dear Editor,

We've been having some driver training mishaps on the M42 (T141). One of our biggest troubles is in shifting.

Here's what happens: The driver puts gear selector in LOW and proceeds up on about 18 or 22-MPH. Then he reaches down to shift to HIGH. Instead of moving the selector straight back, he puts it in a little toward his right leg and then back into reverse. Which, of course, switches his direction in a hurry.

This is hazardous to crew members who are doing off the vehicle, and is one case proved disastrous to a car which was put-back behind the M42. It'll also heat up the power train and suspension system.

Inclosed are sketches of a device which we believe can stop most of this trouble on the M42. It can also be used on the M41 shifting tank.

It can be made from anything as simple as a hinge-flap or toe-hinge, attached to the side of the range-selector box (Fig 2). The face of the hinge,



which lies across the top of the box, should be shaped so as to cover just the distance to the reverse slot (Fig 3). It'll let the lever move freely between HIGH



and LOW, but must be flipped to the side position (Fig 5) before a shift to reverse can be made. Makes it almost impossible to shift to reverse by mistake.

WED J. L. YOUNG  
Hills, Texas

*Old Man:*—Regarding that'll get that shift in the right slot is OK. Looks like you've a good idea for training, who may tend to be a little variable. Don't doubt that if you've really got the feel of the controls that you'll automatically pull that lever 90° in the wrong direction against the drag of an I-40 spring.)

## LEAD-UP

Dear Editor,

I had an inspection last week on my 1967 Chev. Sub. truck, and was asked if the wheel end-nuts were tight. Since I couldn't tell right then and there, the inspector reminded me that I could lose a wheel if they're loose.



I decided to paint a white mark down the side of each nut and onto the nut. This way when you look at them and see the lines on the nut and nut don't meet, you'll know the nuts are coming loose. Of course, they must be tight before you paint them.



The same idea can be used on other types of trucks, and on any hubs where tightness is especially important. Like the 1-inch hubs that hold the front choppers on the nose on the M22 trucks.

PH. L. H. Fogal  
Rt 28, Oklahoma

*(Ed Note—It's a small idea, but remember, Jack, always. You'll have to take off the old and put on new marks every time you tighten 'em up. Also have 'em check chopper hubs regularly. . . . Specially at the end of the first day's operation after tightening 'em.)*

## SHOP-VAN LADDER

Dear Editor,

Hopping up into the rear of the M100 or M120 shop van, instead of looking up the access ladder and using it, is not so smart. Because when you're in the van, when times out of town, you'll open that back door on the hub for more light or air, and then you've got a no-job job.

Some fellows have opened it, with the ladder well attached. They thought the door was stuck, so they kept pushing until they took off the carrying straps at the top of the ladder and the toggle links at the bottom (Fig. 4).



Here's a time when you've got to take a step to save a step.

PH. L. Fogal  
American Flying Ground, Maryland

# HAPPY ENDING

Dear Editor, we don't love an empty battery  
 case and a broken smoking flask... one of  
 us has to make a sacrifice... Peter's does...



IF A TOOTH BRUSH BRUSH CASE IS YOUR ONLY CHOICE



LOOK ABOUT THE BAY  
 DON'T BEEN INSULATION

HOW PUT  
 LABEL IN  
 WITH  
 BATTERY  
 CASE



COVER IT WITH A LABEL  
 CAREFUL THE LABEL THE  
 BATTERY IS IN THE  
 CASE THE  
 IT IS BATTERY INSULATION  
 CASE



OR IF NO  
 INSULATION

KEEP INSULATION ONLY  
 COVER TOP OF BATTERY  
 INSULATION AND TOP OF  
 BATTERY THE BATTERY  
 BATTERY THE LABEL  
 SET IT COOL



PLACE IT IN  
 CASE



or if you have  
 a battery...



THE BATTERY IS A GOOD ONE... IF YOU'RE IN THE  
 BACK ROOMS OR IN THE BACK OF THE STORE, AND  
 DON'T WANT TO PUT YOUR BATTERY IN THE CASE...

## *Service Tools* BRIEFS



### *Anti-graze Dials*

The right dials for anti-grazed and anti-rattle vehicles for your vehicle's cooling system is outlined in TM 9-2815, TM 9-850 and TM 9-4. What's sold in TM 9-804, page 199, and TM 9-827, page 228, will have same changes. Use 2 1/2 pints for each gallon of cooling system capacity and you'll be OK down to 0° F.

### *5-ton governors*

In case you haven't heard, you now get the engine governors of your 5-ton diesel trucks at 2400-RPM. Message DA-40831 gives the low-down on this.

### *Drain dirty*

When getting in the air-hydraulic system can cause the greatest things to happen to your business—especially when you need 'em. Just drain your air receivers after operation every day includes weekly to help 'em get rid of their water.

### *There is one*

How did that get in there? In spite of what PG 274, page 144, says there is a



lock washer sticking out of ADA light bulb. It's Got Stock No. 41-4-208-27.

### *Sandy sealed-lifts*

Try to keep your Jeep's Willys-style-lifted drive shaft 1/2-pint out of sand. Once sand hits through its double-seal, it'll have a short life. If you need fit the girth, go easy—then wipe it clean often. For further full details see Chapter 2, Section 8 of TM 9-884 and TM 9-8204.

### *Keep your power dry*

Another use for that sealing kit (Got Stock No. 10-C-210-08 PG told you about in PG 271, page 179), is to waterproof your electrical boxes. A TB will be out soon to tell you about it. Without the stuff, water could splatter your power line and knock you out of business.

### *Prop-shaft P-joints*

Those bolts in your truck's propeller shaft universal-joint flanges work loose. How and how are shown off and leaves the driver alone. Please to check yours.

...Need we say more??



**GOVERNMENT STATEMENT OF CHARGES FOR PROPERTY LOST, DAMAGED OR DESTROYED**

OFFICE OF THE SECRETARY OF DEFENSE  
 1015 ABLETON ST. ARLINGTON, VA 22204-4302  
 (703) 605-0000

PROPERTY NUMBER	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL VALUE	DATE OF LOSS	REMARKS
0740-700001	ARMOR, TRACK, 4 (COMMERCIAL)		4				
0740-700002	ARMOR, TRACK, 4 (COMMERCIAL)		4				
0740-700003	ARMOR, TRACK, 4 (COMMERCIAL)		4				
0740-700004	ARMOR, TRACK, 4 (COMMERCIAL)		4				
0740-700005	ARMOR, TRACK, 4 (COMMERCIAL)		4				
0740-700006	ARMOR, TRACK, 4 (COMMERCIAL)		4				

PROPERTY NUMBER: 0740-700001  
 DESCRIPTION: ARMOR, TRACK, 4 (COMMERCIAL)  
 UNIT: 4  
 QUANTITY: 4  
 UNIT PRICE: \$101.20  
 TOTAL VALUE: \$404.80  
 DATE OF LOSS: 3-20-04  
 REMARKS: