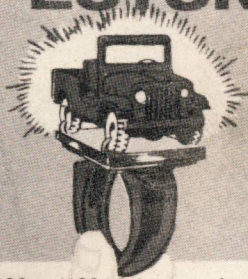


Your Jeep's a Jewel... So Keep It Sparking

BE YOUR OWN INSPECTOR



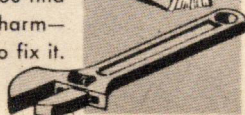
That ¼-ton M38 or M38A1 Jeep you're driving is one of the most useful vehicles you can get your hands on. It'll take you and bring you—and all without any trouble.

Here's a guide you drivers can use when checking your Jeep over. There's a few points you gotta remember when using this guide. Catch—

O'course, you may find some deficiencies that are a lot more serious than others. They're the ones that make it unsafe and downright dangerous to operate a vehicle. For example, a tire that's cut to the fabric is a lot more serious than a tire with a shallow cut, and should be changed before operating a vehicle.

The big issue is this: Major deficiencies must be fixed before taking your vehicle on the road and in the guide on these pages, they're shown in RED TYPE.

On the other deficiencies, you must use your head. If you find a deficiency that's not a major one, but **could** turn into a major one—get it fixed as soon as you can. But, if you find a small dent in your fender—and that dent'll do no harm—don't keep going back to your mechanic to ask him to fix it. That's a waste of time and money.



FRONT COVER

Now, for the TB's—

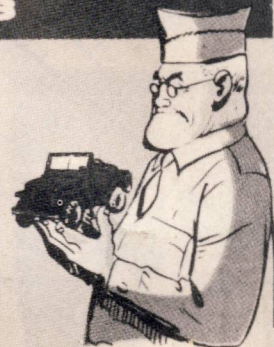
ON THE M38 AND M38A1



- TB Ord 465 (Apr 54): Pedestal Truck Mounts M31A1, M31C: Installation
- TB Ord 487 (Feb 53): Identification, Maintenance of Fuel Filters
- TB Ord 547 (Dec 53): Prevention Crankshaft Pulley Failures
- TB Ord 554 (Sep 56): Removal Flywheel Housing Drain Plug
- TB Ord 560 (May 54): Revision Tire Pressures on Servicing Plates
- TB Ord 570 (Aug 54): Use Front Axle Nondriving Flanges Temporarily Converting Vehicles Four-Wheel to Two-Wheel Drive
- TB Ord 610 (June 55): Forging Valve Operation
- TB Ord 635 (Apr 56): Fuel Tank Rust Prevention

ON THE M38

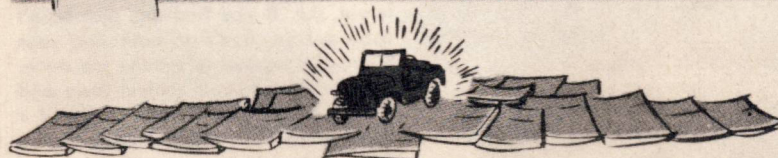
- TB Ord 589 (Jan 55): Installation Distributor Point Set
- TB 9-804-3 (Jan 53): Replacement Lifting-Shackle-Pin Retaining Clip
- TB 9-804-11 (July 54): Elimination Fuel Pump Diaphragm Failures
- TB 9-1804B-1 (Feb 54): Kingpin Bearing-Cap Screw Selection
- TB 9-1859-1 (Apr 52): Time Schedule Guide
- TB 9-2855-2 (Dec 52): Instructions, Personnel Heater Kit Installation
- TB 9-2855-3 (Dec 52): Instructions, Power Plant Heater Kit Installation (0 degrees to -65 degrees)
- TB 9-2855-4 (Oct 52): Instructions, Hardtop Closure Kit Installation
- TB 9-2855-37 (Dec 56): Instructions, Hot Water Personnel Heater Kit Installation
- TB 9-8012-1 (June 56): Elimination of Interference Between Front Rebound Clips and Tie Rods
- TB 9-8012-2 (Oct 56): Replacement of Fuel Pump



ON THE M38A1



- TB 9-804A-1 (Nov 53): Remove Slack of Wiring Harness
- TB 9-804A-2 (Jan 54): Front Spring Rebound Clip Interference with Tie Rods
- TB 9-804A-3 (Feb 54): Adjustment of Glove Compartment Door Striker
- TB 9-1859-20 (Dec 53): Time Schedule Guide
- TB 9-2855-43 (Nov 56): Instructions, Personnel Hot-Water Heater Kit Installation



BACK COVER

OUTSIDE OF

In other words, when you come across one of these piddling little things—fix it up, if you can. If not, make a note of when you reported it, and keep the note in your vehicle's map compartment, so you won't get gigged again and again for it. Your inspector'll know that you recognize the deficiency and intend to get it fixed when your vehicle goes to Ordnance or for rebuild. As long as a deficiency doesn't hurt the operation of your vehicle, doesn't make your vehicle unsafe to run and doesn't cut down on its performance, it can be fixed up when time and circumstances allow.

Never replace any part just for the sake of replacing it—for spit-and-polish purposes. By all means, if a cable, say, is really worn through and sparks are jumpin' like the famous frog, get a new one. But, if the cable looks like it has plenty more hours of life in it, let it be—you're saving your Uncle money.

It'd be a good idea to make your checks at your outfit's major pool, so if you need any tools, you can get 'em from your unit's second echelon tool kit.

This guide lists all the MWO's that have been put out so far on the Jeep—what they apply to, the dates they came out, who's supposed to do the job and whether it's a normal or urgent order. MWO's marked G758 apply to the M38A1 Jeep; those marked G740 apply to the M38 Jeep; and the ones marked G1 go for both Jeeps.

HOOD—Hinges missing, broken, loose (five mounting bolts on hinges must be tight), rusted, not lubricated. Fasteners missing, broken, loose, not lubricated (should be a light coat of oil). Hood loose, squeaks when opened, out of alignment. Two wooden hood bumpers on M38 only missing, loose.

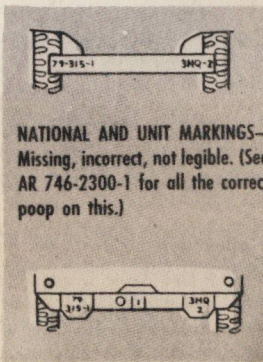
HEAD LIGHTS—Not working. Lenses cracked, clouded, contain water, obstructed with paint.

BLACKOUT LIGHTS—Not working. Lenses cracked, clouded, contain water, obstructed with paint. Shield missing, not in place. Rubber (BO) pad missing.

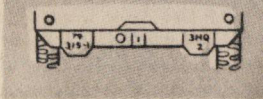
LIFTING SHACKLES—Missing, bent, stuck.

BUMPER—Bent, loose, cracked.

FRAME—Bent, cracked, side rails and cross members loose.



NATIONAL AND UNIT MARKINGS—Missing, incorrect, not legible. (See AR 746-2300-1 for all the correct poop on this.)



VEHICLE (FRONT)

WINDSHIELD WIPERS—Blades missing, arms broken, dead or hardened rubber. (With wiper on, it shouldn't hit the weather stripping on each side of the windshield.)

BATTERY BOX—Screws or clamps missing, rusted, damaged. Corrosion on battery box. (On M38, one battery's located on right side under hood, and other battery is located on right side in cowl. On M38A1, both batteries are located in cowl.)

WINDSHIELD—Cracked on driver's side, clouded enough to block driver's vision. Weather stripping around windshield cracked, torn, coming loose.

MIRRORS—Missing, broken, clouded enough to block rear-view vision. Can't be adjusted for movement in every direction.

BODY BOLTS AND MOUNTINGS—Missing, loose, broken.

SEATS—Cushions torn, have holes.

FILLER CAP—Gas leaking (check gasket). Strainer in filler neck missing, rusted, has holes. Cap not properly positioned (should be backed off one notch from full seat). Gas level too high (must be at least 2 inches below top of tank). Dirt and junk around filler hole. Chain that holds cap missing or rusted.

GENERAL VEHICLE APPEARANCE—Dirty, rust spots, body dents. Split seams (welds must be intact).

*MWO ORD G740-W7 (15 July 53)—"Installation of Front Hub Oil Seals." By Ordnance. Normal.

GAS TANK—Tank leaking. Fuel filter gasket missing, damaged. Tank loose. Top of tank dirty, rusted, needs paint. Tank mounting strap rusted through, loose. Screws holding fuel level sending unit and fuel filter assembly missing or rusted. Fuel lines clips missing.

FUEL LEVEL SENDING UNIT—Gas line crushed. Unit connector crushed. Wire broken.

ASTERISKS (*)
MEAN SEE YOUR
FILE JACKET



CANVAS—Missing, torn.

CANVAS SUPPORTS—Missing, bent, rusted.

TRAILER RECEPTACLE—Corroded, threads stripped, outer ring damaged. Lugs broken. Cap missing or sprung. Polarizing bracket missing, bent.



POLARIZING KEY
POLARIZING BRACKET

*MWO ORD G1-W35 (28 Feb 57)—"Installation of Polarizing Bracket on Inter-vehicular Cable Receptacle." By organizational mechanic. Normal.

*MWO ORD G740-W6 (14 May 53)—"Reinforcement of Body Panels." By Ordnance. Normal.

GASOLINE CAN BRACKET—Missing, loose, bent, dirty. Tie-down strap missing, torn.

OUTSIDE OF

REAR WINDOW—Fogged enough to hamper vision. Ripped, broken.

SPARE TIRE CARRIER—Loose, bent, rusted, dented, broken spot welds.
*MWO ORD G1-W76 Reinforce Support Bracket. By Ordnance. Normal.

PINTLE—Missing, loose, not lubed, can't be opened.

SPARE TIRE—Missing, incorrect pressure (correct pressure—25 PSI), not secured, less than three securing bolts.

BATTERY COMPARTMENTS

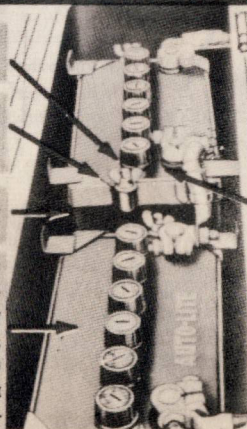
HOLD-DOWN FRAME BOLTS AND NUTS—Missing, rusted, corroded.

HOLD-DOWN FRAME—Too tight (cuts into battery). Loose, rusted, corroded.

BATTERY COMPARTMENT—Rusted, corroded, trash.

*MWO ORD-G740-W8 (20 Oct 55)—"Installation of Battery Hold-Down Frame Angle Bracket." By organizational mechanic. Normal.

*MWO ORD G758-W2 (24 Mar 55)—"Installation of New Battery Box Tray Hanger Brackets." By Ordnance. Normal.



BATTERIES—Vent caps missing or clogged. Specific gravity below 1.225 at 80-degree temperature (the hydrometer you'll need to make this test is yours from your unit's second echelon tool kit, which is kept in the motor pool). Case cracked, acid salts. Case loose in carrier. Water level not to slots in vent wells.

BATTERY CONNECTIONS—Loose. No grease or more than a thin coat on terminals.

VEHICLE (REAR)

CONTACTS BURNED BEYOND USE

SLAVE RECEPTACLE (If you have one)—Cracked, broken. Cap missing, cross threaded, contacts badly burned and beyond use.



TIRES—Tread worn smooth (time for recapping); cut to fabric; uneven wear. Incorrect tire pressure (correct pressure—highway and cross country, 25 PSI; mud, sand and snow, 10 PSI. AR 385-55 sez you can have a 10 per cent tolerance either way on this pressure). Valves bent. Valve caps missing.

WHEELS—Lube or brake fluid leaking (NOT A SEEP).

STUDS—Broken. Bent.

RIM AND AXLE FLANGE NUTS—Missing, loose. Rims dented.

*MWO ORD G740-W10 (6 Oct 55)—"Securing Front Passenger Seat Pivot Pin to Seat Hinge Pivot." To be done by Ordnance. Normal modification.

*MWO ORD G1-W50 (4 Oct 56)—"Anchoring Front Passenger Seat." By Ordnance. Normal.

REFLECTORS—Missing, cracked, broken, dirty, discolored. Red backing peeled beyond 1/2 inch.



TOOL COMPARTMENT—Rusted, dirty. Trash or unnecessary parts. Weather stripping around lid cracked, torn. Tools missing, dirty, broken.

MISSING TOOLS—You should have these tools (the tools for the M38 and M38A1 are the same, except the M38 is authorized an extra screwdriver):

BAG, tool, empty, 20 1/4 x 18 1/4 in to top of flap, open (FSN 5140-772-4142).

HANDLE, JACK: collapsible, 36 1/4 in lg (FSN 5120-708-3364).

JACK, SCREW, HAND: geared, upright, 1 1/2 ton cap, 7 1/4 in. closed h, 17 1/4 in extended h, w/screw extn (FSN 5120-708-3365).

PLIERS, SLIP JOINT: stgth nose, comb, w/cutter, 8 in lg (FSN 5120-223-7397).

SCREWDRIVER, FLAT TIP: mtl w/wood inserts hdl, flared tip, 3/8 in w, 6 in lg blade (FSN 5120-227-7349).

SCREWDRIVER, FLAT TIP: wood hdl, flared tip, 1/4 in w, 4 in lg blade (FSN 5120-277-9491) (authorized for the M38 only).

WRENCH, OPEN END, ADJUSTABLE: sgle end, 1 5/16 in jaw opng, 8 in lg (FSN 5120-240-5328).

WRENCH, PLUG, STRAIGHT BAR: sq 1/2 in plug, 2 1/2 in lg (FSN 5120-708-3302).

WRENCH, WHEEL STUD NUT: sgle-hd, offset socket, hex, 3/4 in opng; 9 1/2 in lg (FSN 5120-422-8603).

REAR LIGHTS—Not working. Lenses cracked, broken, discolored.

BUMPERETTES—Bent, loose, broken.

*SEE YOUR FILE JACKET (DA FORM 478)

ENGINE (LEFT SIDE)

RADIATOR COOLANT — Below proper level (should be within 1 inch of filler neck). Water rusty, dirty.

SPARK PLUGS — Cracked, loose, dirty.

RADIATOR, COOLING SYSTEM HOSES, CLAMPS—Radiator leaking (radiator gasket missing), radiator fins dirty, lotta bugs. Hoses worn, torn. Clamps missing, broken.

IGNITION WIRING—Cracked, shield broken open, threads crossed.

UNUSUAL ENGINE NOISES—If you hear any unusual noises coming from under that hood—if your engine's running rough—better not take any chances. Get suspicious and report it to your organizational mechanic—he wants to know about it. Here're the things that could be wrong—

CARBURETOR IDLE SETTING—Engine idling too fast or too slow.

CYLINDERS—Listen to engine idle—does it run rough? Is engine missing?

TIMING—If the engine's outta time, it'll run rough. In line with this timing deal, you can check to see if this MWO has been put into being on your vehicle:

*MWO ORD G1-W54 (25 Jan 57)
—"Installation of Timing Indicator." By Ordnance. Normal.

ROCKER ARM COVER ASSEMBLY (M38A1 only)—Leaks oil (could mean it's loose, cracked or the gasket's damaged).

CYLINDER HEAD—Cracked, compression or water leaks (a tip-off to this is a hissing sound).

MANIFOLDS—Cracked, loose. Studs broken, missing. Nuts missing, loose. **MANIFOLD HEAT CONTROL VALVE**—Stuck fast.

RADIATOR-TO-ENGINE LEFT SUPPORT ROD—Missing, loose, rusted.



FUEL AND VACUUM PUMP—Broken, loose. Primer handle, missing, broken.

OIL PUMP ASSEMBLY BRACKET—Broken, loose.



Fording valve not in non-fording position.

ENGINE (RIGHT SIDE)

CARBURETOR AIR CLEANER—Oil level low (must be up to level mark). More than 1/4 inch of dirt in bottom of cleaner.

CARBURETOR AND LINKAGE—Sticking.

CARBURETOR AIR INTAKE PIPE—Cracked, bent, loose.

CARBURETOR AIR HOSE—Cracked, leaking, holes, not clamped right.



TOO MUCH DIRT UNDER SNORKEL COVER

CRANKCASE OIL—Level too low (no lower than 1/2 inch below top full mark). Too high (no higher than 1/2 inch above top full mark). (Don't check dipstick immediately after stopping.) Cap missing, gasket damaged or missing. Stick's baffle missing.



ENGINE WATER TEMPERATURE SENDING UNIT—Loose, rusted, mounting cracked. Loose electrical connection.

ENGINE OIL PRESSURE SENDING UNIT—Loose, rusted, mounting cracked. Loose electrical connection.

OIL FILTER AND BRACKET—Filter leaks, dirty, loose. On Cuno type—oil filter handle will not turn.

DISTRIBUTOR WITH COIL ASSEMBLY—Distributor cracked, broken. Loose electrical connections. Distributor mounting loose.

STARTER MOTOR—Loose electrical connections. Starter motor mounting loose.

ENGINE MOUNTING—Bolts missing, loose.

RADIATOR-TO-ENGINE RIGHT SUPPORT ROD—Missing, loose, rusted.

GENERATOR—Loose electrical connections. Generator mounting loose.

REGULATOR—Loose electrical connections. Regulator mounting loose.

RECTIFIER (for 100-amp systems only)—Dirty.

*SEE YOUR FILE JACKET (DA FORM 478)

FAN BELT—Belt cracked, dangerously frayed or shredded. Incorrect adjustment. Proper adjustment for the M38 and M38A1, with 24-volt systems, 3/4-in deflection. If you've got a 100-amp system on your Jeep, that fan belt deflection should be very slight. If you're not sure, loosen the generator adjusting bolts and wedge a pry bar between the generator and engine block. Then, with a pull of about 100 pounds, pry the generator tight on its mountings and tighten the generator's adjusting bolts. This'll tighten those fan belts to the right deflection.

CAB

WATER TEMPERATURE GAGE—Lens cracked, dirty, clouded. Doesn't work right (temperature should read between 180 degrees F and 220 degrees F when engine's warmed up).

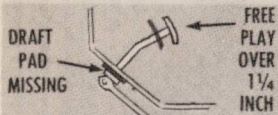
WINDSHIELD LOCK—Missing, rusted, not operating.

WINDSHIELD WIPER AIR REGULATING VALVE—Not operating. Leak in line (a tip-off is a strange hissing sound).

GLOVE COMPARTMENT—Loose, latch broken, falls open, leaks water, dirty.
FORMS AND PUBLICATIONS (LO, TM, DD Form 518, SF 91)—Missing, unreadable, incorrect publications, DD Form 518 not filled out. Flywheel housing drain plug (for fording).

CHOKE CONTROL—Missing, not operating, loose.

DIMMER SWITCH—Broken, loose, delay between high and low beam.



FREE PLAY OVER 1 1/4 INCH

CLUTCH—Improper free play (should travel free 1 1/4 inches), grabs, chatters, slips.
*MWO ORD G1-W88 (30 Oct 56) — "Modification of Clutch Release Pedal Stop." By organizational mechanic. Normal.

HEADLIGHT HIGH BEAM INDICATOR LIGHT—Missing. With upper beam lights on, doesn't work.

FORDING VALVE HANDLE—Does not close and open all the way.



HANDBRAKE—Incorrect adjustment (should require no more than 3/4 travel for full application.) Handbrake doesn't hold, cable busted.
*MWO ORD G758-W5 (10 Oct 55) — "Drilling of Lubrication Holes in Handbrake Handle." By organizational mechanic. Normal.

BRAKE PEDAL—Spongy, improper adjustment (travels to a point less than 2 inches from floor), gives way under pressure.
BRAKE MASTER CYLINDER—Leaking, not up to level (must be at least 3/4 full).

IGNITION SWITCH—Loose, broken.

*MWO ORD G740-W5 (27 Oct 52) — "To Identify ON and OFF Positions on Ignition Switch." By Ordnance. Normal.

ACCELERATOR PEDAL—Sticks, loose, boot missing or torn.

STEERING WHEEL—Bent.

HORN—Not operating. Loose, broken.

LIGHT SWITCH—Not operating. main switch moves beyond "BO" when locked, broken, cracked.

ONLY FREE MOVEMENT



THROTTLE CONTROL—Missing, not operating, loose.

WINDSHIELD WIPER MANUAL CONTROL HANDLE—Missing, bent, broken.

BAT-GEN INDICATOR—Lens cracked, dirty, clouded. Doesn't work right (with engine running at fast idle, indicator should not show discharge).

FUEL GAGE—Not registering. Lens cracked, dirty, clouded.

NAME, DATA, CAUTION AND INSTRUCTION PLATES—Not readable, painted.

SPEEDOMETER—Not working. Lens cracked, dirty, clouded.

OIL PRESSURE GAGE—With engine running, gage doesn't register (should show some indication at fast idle). Lens cracked, dirty, clouded.

*MWO ORD G1-W63 (27 June 55). "Replacement of Oil and/or Air Pressure Gage." Change 1 (13 Aug 56) says this is to be done by organizational mechanic. Normal.

STARTER—Not working
Bent, loose.

TRANSFER FRONT WHEEL DRIVE GEARSHIFT LEVER—Stuck, loose, bent, knob missing. (Check while driving.)

TRANSFER HIGH AND LOW RANGE GEAR SHIFT LEVER—Stuck, loose, bent, knob missing. (Check while driving.)

TRANSMISSION GEAR SHIFT LEVER—Stuck, loose, bent, knob missing, boot torn.

INSTRUMENT PANEL LIGHTS—Burned out, missing, not working.
*MWO ORD G740-W1 (3 Dec 51) — "Relocation of Circuit Breaker (behind instrument panel)." By Ordnance. Normal.

*SEE YOUR FILE JACKET (DA FORM 478)



UNDERNEATH THE VEHICLE

SPRINGS, U-BOLTS, CLIPS, SHACKLES— Broken leaves. Loose U-bolts, loose or missing rebound clips.

Left front shackles bushings must have left-handed threads.

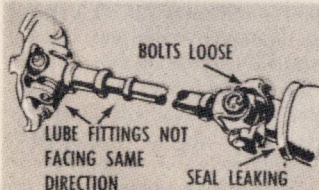
*MWO ORD G740-W9 (2 Feb 56)—“Waterproofing of Steering Gear and Draining of Steering Jacket.” By Ordnance. Normal.

*MWO ORD G758-W1 (28 Sept 56)—“Waterproofing of Steering Gear and Draining of Steering Jacket.” By Ordnance. Normal.

FRONT AXLE HOUSING (CV JOINTS)—Dry (gotta be lubed to plug level with GAA). Rusty, badly scored. Flange bolts loose. Turning-stop bolt weld-broken.

ENGINE OIL PAN—Leaky gasket. Leaky plug (check for looseness). Bolts loose (leaks, again).

DIFFERENTIAL—Leaky plug (check for looseness). Improper lube level—on a cold engine—(stick in a clean finger up to the first joint—the tip should just be touching the lube. When hot—should be at plug level). Bolts loose. Vents plugged.



DRIVE SHAFTS AND UNIVERSAL JOINTS—Bolts or shaft loose. Universal joints loose. (Grease fittings on each shaft should face the same direction).

*MWO ORD G758-W4 (2 May 55)—“Provide Propeller Shaft Universal Joint Assemblies with Lubricating Fittings.” By organizational mechanic. Normal.

TRANSMISSION—Leaky drain plug (check for looseness). Improper lube level (when lube's cold—stick in a clean finger up to the first joint—the tip should just be touching the lube. When lube's hot, should be at plug level). Bolts loose.

FLYWHEEL HOUSING—Drain plug removed (in only for fording).



SHOCK ABSORBERS—Broken, linkage loose.

TIE RODS—Loose, bent.

STEERING BELLCRANK ASSEMBLY—Loose. LOOSE



BRAKE LINES AND HOSE CONNECTIONS—Lines leaking. Lines twisted, kinked, frayed. Connections loose. Brake anchor pins-punch marks not pointed at one another.

MUFFLER AND CLAMPS—Holes in muffler. Muffler cracked. Clamps worn, loose.

TAIL PIPE AND CLAMPS—Tail pipe clogged, collapsed, cracked. Tail pipe dented. Clamps worn, loose.

THOSE MWO'S

On this MWO deal, there are a few things you gotta keep in mind:

*When checking over your Jeep and you can't actually see if an MWO has been put on, check that vehicle's 478 jacket file, which you'll usually find in the motor pool. It'll tell you if the MWO's been put on.

If you find an MWO that hasn't been put on, find out whether it's an urgent or normal modification. If it's **urgent** and is to be done by your second echelon mechanic, contact him right-quick and make sure he makes a date to put it on. If the job's to be done by Ordnance support, your motor officer contacts **them** immediately. They want to know, 'cause those urgent jobs are real priority deals.

A normal modification's handled different, tho. If you find one that hasn't been put on, don't go bothering your Ordnance support to get the job done. Your motor officer'll contact them and let 'em know. They'll make a note of it and put the work on the Jeep next time it's in their shop.

*MWO ORD G1-W44 (28 Feb 57)—“Welding Rear Shock Absorber Brackets.” By Ordnance. Normal.

*MWO ORD G740-W3 (5 Nov 52)—“Installation of Baffle on Rear Axle-Housing Cover.” By organizational mechanic. Normal.

*MWO G1-W43 (12 Jan 54)—“Removal of Rear Axle Lubrication Fitting.” By organizational mechanic. Urgent.

*MWO ORD G740-W4 (24 Nov 52)—“Fabrication of Cover Plate for Bell Housing.” By organizational mechanic. Normal.

