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S T U D E B A K E R

SERVICE BULLETIN

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DECEMBER

No. 141

1943

WPB. CONSERVATION ORDER M-216, M-216a and M-216b—STANDARDS FOR MAINTENANCE AND DELIVERY OF STORED AUTOMOTIVE VEHICLES

Supersedes Service Bulletin No. 141 Dated October 1942

A complete schedule for preparing new cars for storage was first provided Studebaker dealers in Service Bulletin No. 141 for April 1942. Dealers were advised by the Sales Department in Confidential Sales Bulletin No. 787 of July 10, 1942, that the Reconstruction Finance Corporation (RFC) had approved this schedule. This subject was also covered in Dealer Letter No. 767 of June 19, 1942.

Service Bulletin No. 141 was revised in October 1942, in order that storage instructions should be in complete conformance with War Production Board Conservation Order M-216. This order as amended was covered in Studebaker Wartime Information Bulletin No. 132, July 21, 1943, and No. 215, October 26, 1943.

WPB Conservation Order M-216a, establishing Standard Delivery Operations for all reserve vehicles in storage, was the subject of Studebaker Wartime Information Bulletins No. 942 of January 28, 1943; No. 1000 of March 9, 1943; and No. 26 of March 29, 1943. In March 1943, copies of a checklist of operations to be performed in preparing stored vehicles for use were offered gratis to Studebaker dealers.

RECENT AMENDMENTS TO CONSERVATION ORDER M-216 NECESSITATE A SECOND REVISED EDITION OF SERVICE BULLETIN NO. 141. In this revised issue we quote the text of Schedule No. 1 of Conservation Order M-216 as amended October 21, 1943. In this bulletin we are also reproducing Schedule No. 1 of Conservation Order M-216a, as amended, which includes all operations that must be performed before a stored vehicle is moved or delivered: (a) by rigid bar; (b) by loose linkage (rope or chain); (c) for wholesale delivery; (d) for retail delivery.

Although dealers were required, under the original order, to have all new cars prepared for storage by October 31, 1942, this information will continue to be essential inasmuch as many of the operations must be again performed whenever the location of the vehicle is changed. Each car must be kept in complete compliance with Conservation Order M-216, and we particularly bring to your attention the paragraphs which require that certain of the operations are to be repeated at certain time intervals.

Special Operations which we recommend for Studebaker cars are shown in italics immediately following each paragraph affected. Studebaker dealers are not obliged to carry out the italicized suggestions. These are intended only as a guide and to conform with certain recommendations which we consider desirable for Studebaker cars.



WAR PRODUCTION BOARD, WASHINGTON, D. C.
SCHEDULE 1 TO CONSERVATION ORDER M-216
 AMENDED OCTOBER 21, 1943

Standards for Maintenance of New Automotive Vehicles

The following Standards for Maintenance are established for the preservation and care of new passenger automobiles and new commercial motor vehicles while in storage in the possession of or under the control of producers, distributors, dealers, sales agencies and finance agencies. These vehicles, as defined below, are termed for convenience "reserve vehicles." While set up primarily for the servicing of reserve vehicles, the Standards for Maintenance are equally appropriate for the preservation of similar vehicles whenever the same are to be kept in storage.

Vehicles to Which Standards Are Applicable

The reserve vehicles to which these standards for maintenance apply are those new passenger automobiles and new commercial motor vehicles held subject to rationing under orders of the War Production Board and the Office of Price Administration, as to passenger automobiles by General Conservation Order M-130, effective June 8, 1942, and by Office of Price Administration New Passenger Automobile Rationing Regulations, Order No. 2A, effective March 2, 1942, and as to new commercial motor vehicles by General Conservation Order M-100, effective March 9, 1942, while in storage, in the possession of or under the control of producers, distributors, dealers, sales agencies or finance agencies. They are defined as follows:

1. Any 1942 model passenger automobile, built upon a standard or lengthened passenger car chassis having a seating capacity of not more than ten (10) persons, irrespective of the number of miles it has been driven, or any other such passenger automobile of earlier model which has been driven less than 1,000 miles, in-

cluding taxis, but not including ambulances, hearses and station-wagons.

2. Any new commercial motor vehicle, including any light, medium or heavy motor truck, truck tractor, or trailer, or the chassis therefor, or any chassis on which a bus body is to be mounted, and which was manufactured subsequently to July 31, 1941; was designed to be propelled or drawn by mechanical power for use on or off the highways for transportation of property, or persons; was manufactured otherwise than under specifications of the United States Army or Navy; has not been transferred to any person other than a sales agency for the purpose of resale; including vehicles of the following types: Trucks, truck chassis, truck tractors, off-the-highway motor vehicles, full-trailers, semi-trailers, dollies, attachment third axles, ambulances, hearses, bus chassis, station wagons, carry-all suburbans, sedan deliveries, utility sedans, coupes fitted with pickup boxes, and cab pickups, but not including taxicabs and integral type buses.

Standards for Maintenance of New Passenger Automobiles and Commercial Motor Vehicles

(These standards for maintenance correspond with those of the Revised Price Schedule No. 85 issued by the Office of Price Administration.)

General Instructions

1. All reserve vehicles, other than full-trailers and semi-trailers, must be stored indoors. Select a clean, dry building suitable for the storage of new passenger automobiles and commercial vehicles. Cover all openings through which animals and birds may enter storage space. Prevent water leakage. Remove loose dirt and white-wash lime.
2. Allow sufficient space between vehicles for accessibility to perform all specified maintenance operations.

Studebaker — Adequate aisles should be left so that any car can be removed without undue expense. When weather conditions require heat, building should be heated slightly. The car and tire serial numbers and the storage date should be listed and a diagram made showing location of each car.

3. The operations specified under the heading "Maintenance Operations" are of two categories: "Initial" operations, which if not already performed, are to be performed, and "Repeat" operations, which must be performed at intervals of six months, or when necessary, as indicated on the following pages.

No.	When to be done	Item	Maintenance Operations
#*1	Initial and whenever necessary	Vehicle	(a) Thoroughly wash vehicle; remove all foreign substances, mud, dirt, grease spots, oil, tar. (b) Check paint, touch up all exposed metal surfaces to prevent rust.

Studebaker — Lubricate chassis after vehicle has been washed, including paragraph No. 17 at time of lubrication.

No.	When to be done	Item	Maintenance Operations
*2	Initial	Windshield wiper	Remove blades; store in glove compartment.
*3	Initial and every six months	Upholstery and floor coverings	(a) Clean and moth-proof all upholstery, including seat cushions, seat backs, side walls, headlinings, floor mats and carpets.

Studebaker — There are a number of good moth preventives on the market, such as paradichlorobenzene crystals. Sprinkle 1/2 lb. of the crystals on the seat cushions and backs, side walls, headlining, floor mats and carpet, also a liberal quantity along where cushions contact the seat back. Paradichlorobenzene crystals are obtainable from Dow Chemical Co., Midland, Michigan in 100 lb. cans, or small quantities may be obtained from drug stores.

Initial

- (b) After moth-proofing upholstery, protect it from direct sunlight, except when on display in customary display room, by one of the following methods:
- (1) Cover all openings through which light may enter storage space.
 - (2) Cover the inside of all car windows and windshields with paper, using masking tape.
 - (3) Cover the car with a paper or cloth cover.
 - (4) Completely cover all upholstery with paper, using masking tape.

Initial

- (c) Place floor mats in their normal position on floor, not rolled up.

**4 Initial and whenever necessary

Chrome plated surfaces

Thoroughly wash and clean all chrome plated surfaces with clear water; when dry, apply a coating of light oil, liquid wax, or special preparations; wipe off until no excess oil or wax appears on the surface of the chrome.

Studebaker — Use of No. 1 Gloss Anti-rust Oil is suggested. This can be obtained from H. A. Montgomery Co., Detroit, Michigan.

5 Initial

Convertible tops

With respect to convertibles, see that the tops are up and leave the shipping cover over the top, or cover it with paper, using masking tape.

*6 Initial

Engine

- (a) Drain engine oil and refill crank case with at least 1/2 charge of rust-inhibiting oil.

Studebaker — In preparing the engine for the inhibiting oil run the engine at a speed of approximately 20 miles per hour until heat indicator comes up to driving temperature to heat the oil for proper draining.

Repeat (c) every six months

- (b) Run engine for 5 minutes at idle speed or about 1,000 R.P.M. Leave this oil in engine.
- (c) At six month intervals turn over the engine with a battery or by turning the rear wheels, with the transmission in gear, to insure that the oil in the engine and lubricants in the transmission and rear axle assembly are properly distributed.

Studebaker — When performing Item 6c, remove block used to disengage clutch. Be certain to reinstall it.

*7 Initial

Fuel system and carburetor

- (a) Drain gasoline tank completely and replace filler cap to exclude dust.
- (b) Run engine until all gasoline is consumed.

NOTE: (1) All maintenance operations and storage requirements are applicable to new passenger automobiles.
 (2) Symbol (*) indicates maintenance operations applicable to new commercial motor vehicles except trailers, third axles and dollies.
 (3) Symbol (#) indicates maintenance operations applicable to trailers, third axles and dollies.

No.	When to be done	Item	Maintenance Operations
*8	Initial Repeat every six months	Spark plugs	Remove spark plugs. Inject 2 ounces of rust-inhibiting oil into each cylinder when piston is on the power stroke. Slowly turn engine over a few revolutions with starter. Replace spark plugs.
*9	Initial	Valve compartment (overhead valve engines)	Remove cover. Spray rust-preventive compound or S.A.E. 10-W on mechanism and inside cover, or pack with oil soaked rags. Replace cover.
*10	Initial	Seal engine	Seal the engine. This can be done in the following manner: Remove engine oil filler tube cover and crank case breather cover, if there is one, and seal the openings. Also seal the air cleaner, tail pipe, and any other openings into the engine. Tubes or pipe can be sealed satisfactorily by covering with a small piece of oiled or waxed paper, gathering the edges of the paper around the tube and tying them with a cord. The air cleaner can be sealed conveniently by covering with a paper bag and tying a cord around it at the solid part of the engine side of the air intake openings. Sealing the engine to a large extent prevents air moisture from entering the engine. Note—Since no provision has been made for turning the engine over at regular intervals, it is absolutely essential that the recommended procedure for conserving the engine be followed carefully.
*11	Initial	Battery removal	(a) Remove the battery and store it in a cool place near recharging equipment, to facilitate servicing. Clean battery connections and wipe with light grease. (b) If dealer has portable battery charging equipment, he may elect to leave battery in car. In either case battery must be maintained as per Item 12 below.
*12	Initial and as specified under Maintenance operations	Battery maintenance	(a) Check the specific gravity at regular intervals of six weeks, except in extremely hot weather when inspection periods should be cut to three weeks. (b) Check and correct water level at each inspection and recharge batteries as necessary to bring gravity reading to 1.280 or above. In no case should the specific gravity be allowed to fall below 1.220. These specific gravity readings are given for batteries at 60° F. air temperature.
*13	Initial	Cooling system	Completely drain cooling system including radiator, cylinder block, pump, heater hose and all water connections. Leave system dry. Note: If coolant contains anti-freeze and rust-inhibiting solution it may be left in the cooling system.
<i>Studebaker — When draining Climatizers or other Studebaker heaters, remove the hose from the cylinder head fitting and hold the open end of the hose below the level of the heater.</i>			
**14	Initial	Brakes	Leave all brakes in released position.
*15	Initial	Clutch	Block the pedal of dry clutches in partially disengaged position. It is not necessary to disengage other type clutches.

No.	When to be done	Item	Maintenance Operations
#*16	Initial and as specified under Maintenance operations	Tires	(a) Indoor storage. Jack up vehicle in storage location taking weight off the tires. Maintain the air in tires between 1/3 and 2/3 operating pressure so that vehicles can be pushed or towed out quickly if necessary in an emergency. Tension in cords will be relieved by lowered pressure. (b) Outdoor storage in the case of trailers. Jack up vehicles in storage space. Remove tires from wheels. Leave wheels mounted on axle spindles. Lower weight of trailer to rest upon wheels. Store tires in a dark cool place protected from direct sunlight, in a horizontal position, with separators.
#*17	Initial and, if necessary, every six months where applicable	Latches, hinges, brake connections, vertical supporting mechanisms, and fifth wheels	Lubricate with light oil all latches, hinges, brake connections, vertical supporting mechanisms, and fifth wheels.
#*18	Initial where applicable	Doors, windows, and vents	(a) Close all doors, windows, and vents tightly. (b) Close all venti-panes. (c) Leave cowl ventilator open (if screened).

NOTE: In the performance of Items 6 and 8 (Maintenance Operations 6 (a) and 6 (b) and Item 8) the rust inhibiting oil must fully comply with specifications identified as "CRC Designation L-7-443" and published by the Cooperative Research Council, 30 Rockefeller Plaza, New York, N. Y., April, 1943; or the U. S. Army Ordnance Specification No. AXS-674 or No. AXS-934. *Reserve vehicles which are not processed with a product meeting these specifications must be reprocessed with a product which fully complies with these specifications.*

Studebaker—Following is a partial list of manufacturers making special oils that meet the above specifications and their symbol numbers. Do not use any other oil without first getting our approval.

Veedol 9341 — Tidewater Oil Company
 651 Engine Preservative Oil — Texas Oil Company
 Mobile Rust Proof Grade I — Socony-Vacuum Oil Co.
 Sultana Rust Preventive SAE 10 — Pure Oil Company
 Sinclair Opaline R P-Grade I — Sinclair Refining Co.

Studebaker — It is suggested for the dealer's own protection that a "Caution" tag be placed on the steering wheel or windshield stating that the engine has been treated internally to prevent rust, that the cooling system is dry and that the engine is not to be run until the vehicle is to be taken from storage and put in service.

SCHEDULE I TO CONSERVATION ORDER M216a

STANDARD DELIVERY OPERATIONS FOR RESERVE VEHICLES

(SCHEDULE I. AMENDED MARCH 3, 1943)

The Standard Delivery Operations set out in this Schedule I are established in order that new passenger automobiles and new commercial motor vehicles may be put in proper mechanical condition for operation. All of these Operations must be performed on vehicles prior to delivery.

These Standard Delivery Operations are identical with those established by the Office of Price Administration in Amendment No. 8 to Revised Price Schedule No. 85, entitled "Passenger Automobiles" and in Supplementary Regulation No. 14, as amended.

Vehicles to Which Standard Delivery Operations Are Applicable

The reserve vehicles to which these Standard Delivery Operations apply are those new passenger automobiles and new commercial motor vehicles which are held for rationing under orders of the War Production Board and the Office of

Price Administration. As to new passenger automobiles these are General Conservation Order M-130, effective June 8, 1942, and Office of Price Administration New Passenger Automobile Rationing Regulations, Order No. 2A, effective

March 2, 1942, as amended; and as to new commercial motor vehicles, General Conservation Order M-100, effective March 9, 1942, as amended. These reserve vehicles are more particularly defined as follows:

"Reserve Vehicles" means any of the following described vehicles which have not been sold and delivered under the rationing procedures of the War Production Board or the Office of Price Administration, and which are in storage in the possession of or under the control of producers, distributors, dealers, sales agencies and finance agencies or other persons throughout the United States.

1. Any 1942 model passenger automobile, built upon a standard or lengthened passenger car chassis, having a seating capacity of not more than ten (10) persons, irrespective of the number of miles it has been driven, or any other such passenger automobile of an earlier model which has been driven less than 1,000 miles, including taxis, but not including ambulances, hearses and station wagons.

2. Any new commercial motor vehicle, including any light, medium or heavy motor truck, truck tractor or trailer, or the chassis therefor, (or any chassis on which a bus body is to be mounted) and which was manufactured subsequently to July 31, 1941; was designed to be propelled or drawn by mechanical power for use on

or off the highways for transportation of property, or persons; was manufactured otherwise than under specifications of the United States Army or Navy; has not been transferred to any person other than a sales agency for the purpose of resale; including vehicles of the following types: trucks, truck chassis, truck tractors, off-the-highway motor vehicles, full-trailers, semi-trailers, dollies, attachment third axles, ambulances, hearses, bus chassis, station wagons, carry-all suburbans, sedan deliveries, utility sedans, coupes fitted with pickup boxes, and cab pickups, but not including taxicabs and integral type buses.

General Instructions

1. Under no circumstances should a reserve vehicle be operated, under its own power, until the Standard Delivery Operations numbered 1-13 inclusive have been performed upon it.

2. With respect to change of location of reserve vehicles in storage, the following conditioning operations must be performed:

Before being towed by crane truck or rigid bar, Items Nos. 1 a, b; and 2 b.

Before being towed by loose linkage (rope or chain), Items Nos. 1 a, b; and 2 b, e, f, g.

Studebaker — Perform item 7a. If this operation is not performed the hillholder may set the brakes while item 2e is being performed.

Standard Delivery Operations

Item No. 1. Tires.

- a. If tires are unmounted, inspect the rims and remove all rust. Mount tires and inflate them to tire manufacturer's recommended pressure.
- b. If tires are mounted, inflate them to tire manufacturer's recommended pressure.

Item No. 2. Brake system and front wheel lubricant.

- a. Remove all wheels and drums and thoroughly clean rust from all braking surfaces. Also examine anchor pins to make sure their bearings are free so that springs return shoes to released position. **Do not work brake pedal** with brake drums off.
- b. Repack front wheel bearings with new lubricant if necessary.
- c. Check hydraulic master cylinder fluid level, adding approved fluid if necessary. See that filler cap vent is open.
- d. Inspect brake system for leaks and repair any defects.
- e. Work brake pedal several times to make sure system is operating. Jack up each wheel, (if blocks were removed) and apply brakes. Check to see that they operate and then release fully so wheel can turn freely with no drag.
- f. Check brake pedal-floor clearance and adjust if necessary.
- g. With respect to conditioning vacuum booster, electric, and compressed air brake equipment, follow equipment manufacturer's recommendations.

NOTE: Remove outside body and window coverings. Protect upholstery while conditioning vehicle. If another location is required for remaining work, vehicle must not be run under its own power until ready for preliminary road test. (See General Instructions above.)

Item No. 3. Fuel system.

- a. Replace gasoline tank drain plug.
- b. Thoroughly clean fuel line, fuel pump sediment bowl and filter screen, and carburetor. Reinstall.
- c. Check all fuel connections, including carburetor flange nuts or cap screws.
- d. Put gasoline in tank, adding 1/2 pint of SAE-10 engine oil to each 5 gallons of gasoline. Replace filler cap, making sure vent is free.
- e. Check accelerator, throttle and choke linkage, idle and wide open positions.
- f. Remove seal from air cleaner; and add oil if necessary.

Item No. 4. Ignition system.

- a. Clean and adjust spark plugs. Leave them out so cylinders can be lubricated later.
- b. Check distributor, adjust points, clean rotor and contact points.
- c. Lubricate cam and rocker bearing surface.
- d. Clean wire connections and push wires firmly into their sockets in distributor and coil.

Item No. 5. Valve compartment (overhead valve engines).

- a. Remove cover and remove oil soaked rags if any.
- b. Spray valve mechanism with suitable light oil. Leave cover off for observation of valve action later.

Item No. 6. Seals.

- a. Remove seal from tail pipe opening.
- b. Remove seals from oil filler tube, crankcase breather tube, and any other opening. Clean and replace covers.

Item No. 7. Clutch.

- a. Remove block used to keep clutch disengaged and make sure there is correct amount of free pedal movement at top of travel.

Studebaker — If jack base was used as block, place it in the trunk with the tools.

Item No. 8. Preparing engine for service.

- a. Tighten all cooling system, heater hose and defroster connections, replacing any defective hose. If cooling system was stored full, add sufficient coolant to make up for evaporation. If cooling system was stored empty, close drain cocks and replace drain plugs. Fill with clean water and check for leaks.
- b. Drain oil from crankcase.
- 1c. Drop oil pan, thoroughly clean pan, inside of crankcase and pump screen. Replace pan using new gasket.
- d. Fill crankcase with flushing oil. Pour 2 ounces of SAE-10 engine oil into each spark plug hole. Leave spark plugs out.
- e. Lubricate generator, starter, and water pump.
- f. Clean battery carrier, repainting if necessary. Install securely a fully charged battery (spec. grav. of 1.280 or above at 60 degrees F.; water level 1/4" to 3/8" above plates). Clean cables and connections, tighten, and coat terminals with vaseline or approved corrosion preventive. Test battery hookup by turning on headlights (ammeter should show discharge).
- g. With ignition switch off and clutch disengaged crank engine for 30 seconds with starter in order to exercise reciprocating parts and bearings. While cranking engine listen carefully for indications of trouble. Remedy any trouble (such as engine failing to turn over or starter being stuck) before proceeding further. Reinstall spark plugs using new gaskets if necessary.
- h. Start engine (clutch disengaged) and run at idle speed for five minutes.
- i. Adjust automatic choke control if necessary.
- j. Set engine idle speed according to manufacturer's recommendations.
- k. Turn off engine. Drain flushing oil immediately from crankcase.
- 1l. If engine oil filter is sealed type, replace it with a new one. If it is replaceable element type, clean out filter chamber and install new element.
- m. Fill crankcase to correct level with engine oil of proper SAE viscosity for temperature conditions under which vehicle will operate. Start engine and run at idle speed.

Item No. 9. While engine is running, check the following items for proper operation, making all necessary adjustments and repairs:

- a. All instruments (oil, gas, temperature, and ammeter).
- b. Windshield wipers, with blades installed.
- c. Horn.
- d. Every switch position of every light on vehicle.

¹Items 8c and 8l must be performed unless the manufacturer files a statement with the Automotive Division of the War Production Board, and with its dealers, stating that failure to perform these items on vehicles of its own manufacture will not impair their operation as new vehicles.

Studebaker — We have filed such a statement with the WPB. Studebaker Dealers will not be required to perform items 8c and 8l on vehicles of Studebaker manufacture provided that these cars have been driven less than 1000 miles and when stored in exact accordance with Conservation Order M-216, the engine was treated with No-Oxid No. 573 rust inhibiting oil.

²Not applicable to trucks.

- e. Heater, climatizer, defroster.
- f. Cigar lighter, radio, clock and other accessories.
- 2g. Automatic top on convertibles.
- h. Charging rate, and voltage and current regulator.
- i. Manifold heater valve.
- j. Inspect all water hose connections, oil and fuel lines for leakage.
- k. Check and if necessary adjust valve tappets according to vehicle manufacturer's recommendations.

Item No. 10. After shutting off engine, perform the following operations: Before any sediment in coolant has time to settle, make the following check of the cooling system:

- a. If coolant carries little or no anti-freeze, completely drain entire cooling system, examining coolant for presence of rust or other foreign matter.
- b. If coolant carries a considerable amount of anti-freeze, drain a quart from bottom of radiator. If liquid is clear return sample to radiator.
- c. If coolant shows rusty and dirty, completely drain entire cooling system, reverse flush radiator and engine block to remove sediment, using a combination water-air flushing nozzle. (Follow manufacturer's recommendations with respect to thermostats and water pumps before flushing the block.)
- d. Fill cooling system (if not already done) with clean water and rust inhibitor, adding anti-freeze according to seasonal requirements. Watch for leaks at hose ends and pump, and correct any that develop.
- e. While engine is still hot, tighten cylinder head nuts in recommended order.
- f. Tighten manifold studs.
- g. Tighten bolts at connection between exhaust manifold and pipe to muffler.
- h. Replace valve compartment cover (overhead valve engines).
- i. Check all belt adjustments and replace belts if necessary.

Item No. 11. Lubrication.

- a. Lubricate every fitting and check the lubricant level of every reservoir according to vehicle manufacturer's lubrication chart, excepting those taken care of above. Flush out all gear boxes in which rust inhibitor was used during storage. Fill to correct level with new lubricant.
- b. While lubricating, inspect under side of chassis and body for loose or damaged parts and make any necessary adjustments or replacements.

Item No. 12. Check, and if needed tighten, the following items:

- a. Nuts on spring U-bolts.
- b. All steering connections.
- 2c. Front and rear sway eliminator or stabilizer bolts.
- d. Body bolts.
- e. Front and rear bumper bolts.
- f. Gas tank straps.
- g. Shock absorber bolts.

Item No. 13. Front end and wheels.

- a. Check front wheel toe-in.
- b. Test steering adjustments and connections. Check amount of wheel turn to stop on left and right.
- c. Check steering wheel for correct amount of play.

Item No. 14. Preliminary road test.

NOTE: Before road test, remove any stickers that obstruct vision, and wash windshield.

²Not applicable to trucks.

Road test every vehicle by driving it at least 3 miles and checking the operation of the following items:

- a. All gear positions, and operation of gear shift lever.
- b. Accelerator.
- c. Service brakes.
- d. Hand brake.
- e. All instruments: oil, gas, temperature, ammeter, speedometer, and odometer.
- f. Set spark advance or octane selector at correct adjustment for economical performance, idling, pick-up in each forward gear, and ping in acceleration.
- g. Springs and shock absorbers.
- h. Locate squeaks, rattles, and unusual noises.
- i. Special equipment such as overdrives, 2-speed axles, hill-holding devices, and transmissions other than conventional type.
- j. Note any other items upon which work needs to be done.

Item No. 15. **Return vehicle to shop and do the following operations:**

- a. Focus headlights.
- b. Do any work on clutch, service brakes and hand brake for which road test showed need.
- c. Reinspect all water hose connections, oil and fuel lines for leakage.
- d. Clean fuel filters at carburetor and fuel pump.
- e. Make necessary repairs or adjustments of any other items which road test showed to need attention.
- f. Check all tire pressures again and if necessary replace valve core and inspect inner tube and tire casing.

Item No. 16. **Final road test.**

- a. Make further road tests if necessary to see that all equipment is operating satisfactorily.
- b. Check for leaks under engine, transmission, and rear axle.
- c. Clean and remove rust and dirt from engine and its accessories and other chassis parts. Touch up with paint of appropriate color if originally painted.

Removal of Parts and Equipment from Reserve Vehicles

The War Production Board issued Conservation Order M-216b to conserve while in storage and to prevent the removal of functional parts and equipment from new 1942 passenger automobiles — also new commercial motor vehicles manufactured after July 31, 1941. Studebaker Wartime Information Bulletin No. 4, to which was attached an exact copy of the order, was sent to all Studebaker dealers on March 12, 1943. It is important that these restrictions be observed, and to assist you in observing them we have briefly summarized them in the following paragraphs.

This new order prohibits the removal from such passenger automobiles or commercial motor vehicles of any standard equipment or any other part or accessory if such removal will impair the operating efficiency of such vehicles. "Standard Equipment" means such equipment as defined by the manufacturer as of October 15, 1941.

The restrictions do not apply to the removal of storage batteries, provided that when the vehicle is delivered to a consumer, the same battery or a new battery of at least equal quality and capacity and in first-class condition shall be installed by

Item No. 17. **Body.**

- a. Remove wax or grease from interior chrome, clean upholstery, carpets and floor mats and repair any damaged places. Use solvent cleaner which will not damage finish or upholstery.
- b. Remove plugs or screening from holes in floorboards or dash.
- c. Check and lubricate front seat adjustment.
- d. Check operation of all windows, venti-panes, cowl ventilator and sun visors. Clean windows and windshield inside and outside and repair any defects.
- e. Check operation of all doors from inside and outside, trunk lid, hood, and glove compartment.
- f. Check operation of all keys and locks on doors, glove compartment and trunk.
- g. Check and clean tools in kit.
- h. Re-cement any sponge rubber seal strips which may have pulled loose, replacing any which have deteriorated.
- i. Inspect paint finish and repair or touch up any defects or damage.
- j. Clean and polish vehicle body and chrome trim.

NOTE: Owner should drain engine crankcase at about 250 miles and refill to the full mark with a good grade of engine oil of proper SAE viscosity for temperature conditions under which vehicle will operate.

Truck Trailer Equipment

With respect to truck trailer equipment, the following conditioning operations must be performed when conditions show work to be necessary:

Items Nos. 1 a, b; 2 a, b, d, g; 9 d; 11 a, b; 12 a, b, d; 14 c, g, h, j; 15 b, e, f; 16 a; and 17 i, j.

Diesel Engines

With respect to diesel engines, follow manufacturer's instructions where they are at variance with corresponding operations for gasoline engines and equipment.

the seller.

Any battery removed need not be considered as part of the dealer's battery inventory, which is limited as per Limitation Order L-180.

Rubber tires, casings and tubes may also be removed if they are to be stored or exchanged for other tires, casings and tubes upon authority of the Office of Price Administration in accordance with Tire Rationing Order No. 1-A. Such tires shall be mounted on the vehicle by the seller when making delivery.

A part or accessory not essential to the operation of a 1942 passenger automobile which has been altered in accordance to Ration Order No. 2-B, may be removed. Also parts and equipment may be removed for scrap or salvage from any 1942 passenger automobile if the condition of such automobile is such that its repair is not practicable.

No alteration of a 1942 passenger automobile can be made except as covered in Rationing Order No. 2-B. See Wartime Information Bulletin No. 988, February 27, 1943.