

**DODGE**

*Full Rated*

**TRUCKS**

*Bought Aug 5<sup>th</sup>  
"1952"*

*Driver's Manual*

SERIES

B-3-B, B-3-C

## **LICENSE DATA**

TRUCK SERIAL NUMBER . . . . . Stamped on serial number  
plate on left door hinge post.

ENGINE SERIAL NUMBER . . . . . Stamped on left side of cylin-  
der block between No. 1 and  
No. 2 cylinders.

CYLINDER BORE . . . . . 3 1/4 in.

STROKE . . . . . 4 3/8 in.

NUMBER OF CYLINDERS . . . . . 6

A.M.A. HORSEPOWER RATING . . . . 25.35

PISTON DISPLACEMENT . . . . . 217.76 cu. in.

## **KEY NUMBER**

The key or lock number is stamped only on the tag attached to the lock keys. For theft protection, record this number and destroy the tag. Your Dodge dealer also has a record of this number.

## **BREAK-IN SPEEDS**

Until your truck has covered its first 500 miles, it is not advisable to drive in excess of 35 miles per hour. During the succeeding 2000 miles of operation, speed may be gradually increased to complete the "break-in" process. Do not drive at continued high speeds during the first 2500 miles. If the best economy in operation and maintenance is to be obtained, the maximum gross weight recommended should not be exceeded.

*To You*

## **THE OWNER OF THE FINEST TRUCK BUILT**

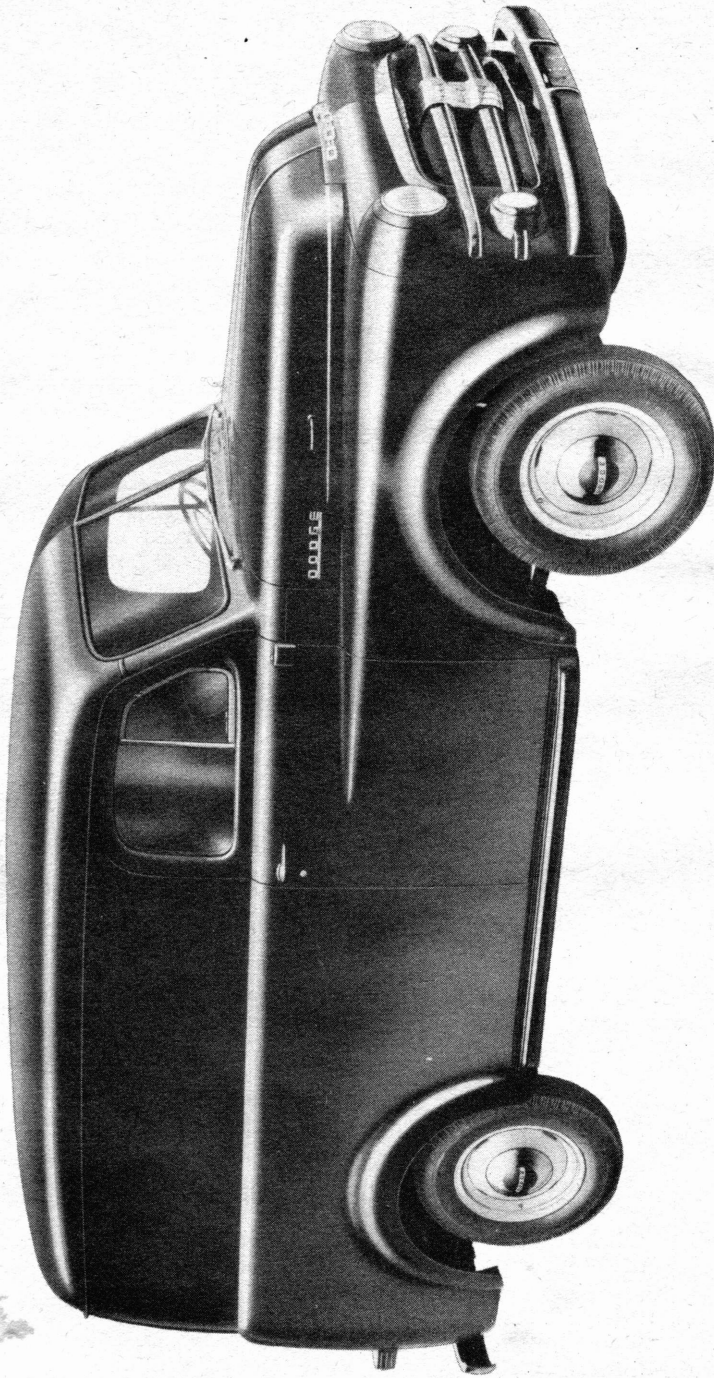
You have made a wise decision in the selection of this Dodge "Job-Rated" truck. Your choice exemplifies sound judgment of truck values and operating economy. Dependability is the key-note of your Dodge truck. With proper attention, your truck will give you satisfactory operation for many, many miles.

As a truck owner, many questions will arise as to the function and operation of the various units that comprise your specific truck. This manual presents to you a non-technical description of those units. The time will be well spent if you — and anybody else who may drive the truck — will take a few minutes to read it. This manual will be valuable as a ready reference. It contains useful information and helpful suggestions on the operation, care and maintenance of your Dodge truck.

**CHRYSLER CORPORATION**

***Dodge Division***

**Detroit 31, Michigan**



**DODGE TRUCK—B-3-B (Typical of B-3-C)**

# MAINTAINING DODGE TRUCK DEPENDABILITY

Your Dodge truck is the result of the most advanced and efficient methods of engineering and manufacturing. It has proven its reputation for "dependability" in the field. These factors combined bring you this Dodge "Job-Rated" truck.

You always receive the very maximum of economy when you pay special attention to service. Any machine requires regular and efficient service, if peak performance is to be maintained. You will obtain thorough and efficient service through your Dodge truck dealer. He *knows* your truck. He is interested in doing everything in his power to make sure that your truck is always performing at its maximum efficiency.



## LOOK FOR THESE SIGNS FOR DODGE "DEPENDABLE" SERVICE

These signs mean that the Dodge dealer who displays them can furnish genuine MOPAR parts for your truck. These parts, built for replacement purposes, measure up to the same high standards of quality as the original parts. Dealers displaying these signs employ men especially trained in the maintenance of your truck.

These Dodge dealers are also equipped with the special tools that insure the best possible service. The use of these tools results in better workmanship, an appreciable saving in time, and lower costs for you.

# OWNER SERVICE CERTIFICATE

## WHAT IT MEANS

The Owner Service Certificate, supplied with each new truck, should be filled in by your dealer. When you read your Owner Service Certificate, read it carefully. It will explain in detail your privileges and obligations as a Dodge truck owner.

Service coupons are attached to the certificate. One is the 1,000 mile service coupon; the other is the 3,000 mile service coupon. Each coupon entitles you to bring your truck to the selling dealer at the intervals noted on the coupons. Your truck will receive the services described. No charges are made for this servicing except for oil, lubricants, fluids and anti-freeze used. These services may be performed by any other authorized Dodge dealer, at no charge to you, providing you are traveling more than 50 miles from the selling dealer.



**OWNER SERVICE CERTIFICATE**

# OPERATING THE TRUCK

You will find that your Dodge truck is easy to handle in city traffic and on the highway. In addition, driving control is positive — and safe driving is stressed in the design of your Dodge truck. This means increased driving comfort — less fatigue at the wheel — for you!

All of these important benefits are made possible by the numerous advanced engineering features incorporated in your Dodge truck.

The following suggested operation and driving practices herein are provided to assist you in obtaining maximum performance from your Dodge truck. As you know, peak performance of any machine can only be maintained by keeping it in top condition. This holds true with your Dodge truck. That is why we urge you to see your authorized Dodge dealer when your truck requires servicing.

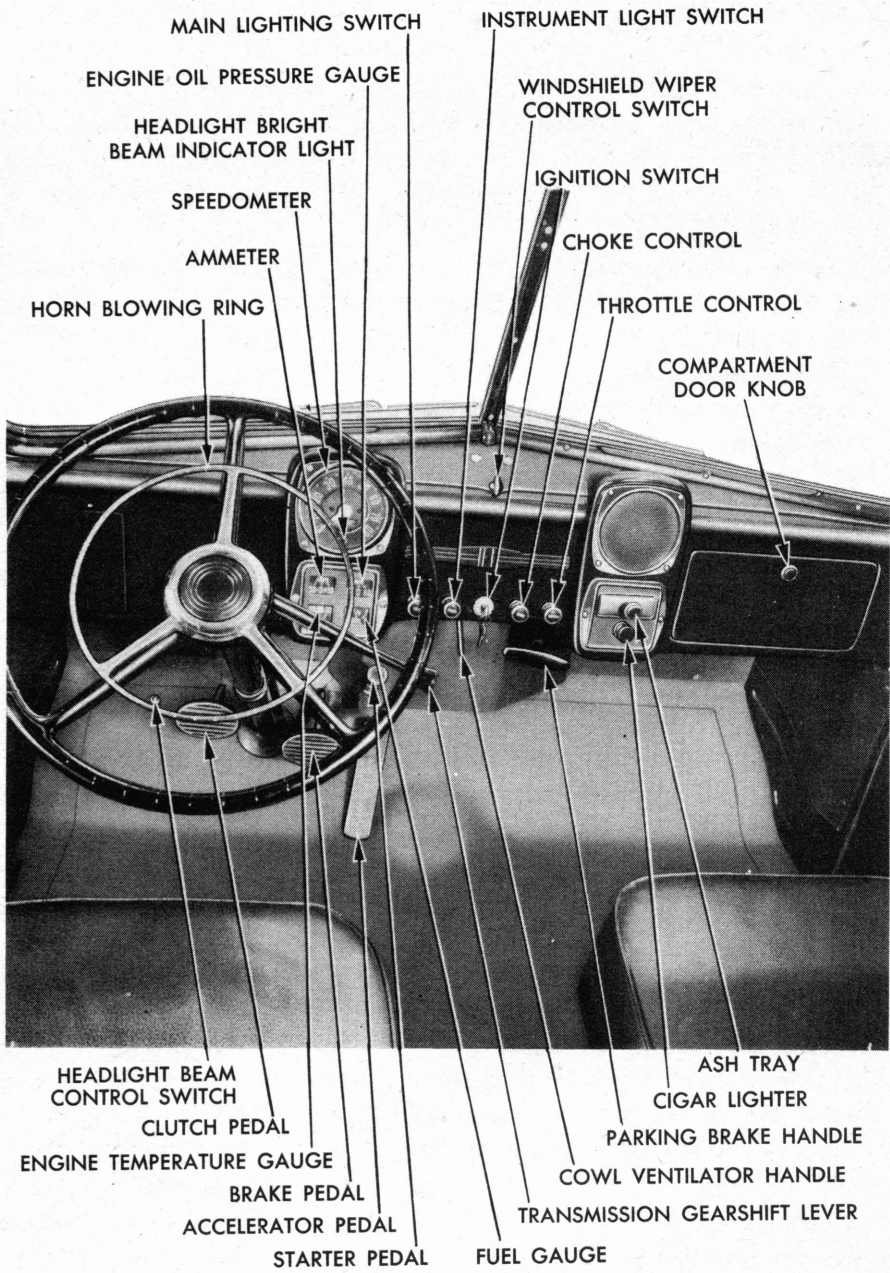
## *STARTING THE ENGINE*

Hold the clutch pedal down while starting the engine. This prevents the vehicle from starting before you're ready, if the transmission had been accidentally left in gear. Also, when you hold down the clutch pedal, the starter will not have the extra job of turning the gears in the transmission, as well as cranking the engine.

Turn the ignition switch key to the right to connect the ignition. If the engine is cold, the choke control button should be pulled out. The starter pedal should then be pushed down with the foot to the limit of its travel.

When the engine starts to run, immediately release the starter pedal. In cold weather after the engine is running properly, it is advisable to engage the clutch slowly, so that the engine will not be stalled by the thick oil in the transmission. The choke button should be immediately pushed in to its best running position and then pushed all the way in as soon as the engine is warm enough to permit it.

Remember, if the engine is cold, it's always best to let it idle a few minutes before starting off. Then, drive slowly awhile to let the engine warm up thoroughly. This is important because it will insure proper circulation of oil to all parts, and that can't be done before the engine reaches its proper operating temperature.



**TRUCK CONTROLS**



If the engine does not start readily when hot, the throttle control button should be pulled all the way out and the choke pushed all the way in. This will allow unvaporized fuel, which may have accumulated in the manifold or cylinders, to be quickly cleared away. The throttle control button should be pushed most of the way in when the engine starts.

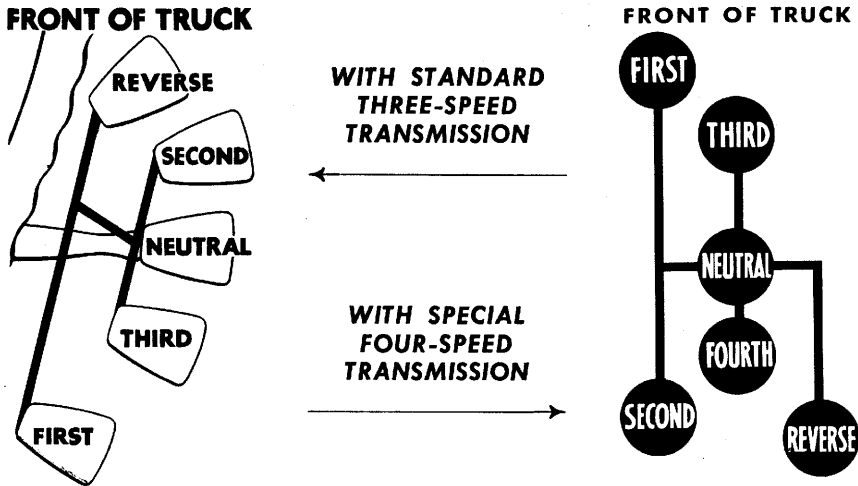
### THE RECOMMENDED WAY TO SHIFT GEARS

Under nearly all conditions, your truck should be started in low gear. Then, very soon, you can shift to second, unless starting on a grade. It is usually best to shift into high gear at about 20 to 25 miles per hour.

Sometimes load or other conditions make it advisable to double-clutch. Double-clutching is done in this manner. When shifting to a higher gear, release the clutch, shift to neutral, and engage the clutch so that its speed will be reduced with reduced engine speed. Then, release the clutch again and shift into the higher gear.

When shifting to a lower gear, release the clutch and shift to neutral. Engage the clutch and accelerate the engine to the speed necessary for the lower gear. Then, release the clutch and quickly shift to the lower gear.

With a little practice, double-clutching can be done fast and easily and its advantages will be readily recognized.



GEARSHIFT LEVER POSITIONS

## HANDLING THE TRUCK ON HILLS

Some drivers may feel a certain sense of shame in shifting out of high gear when climbing a long or steep hill. Your truck needs its gears. You should use the gears for the purpose for which they were intended. Even if a steep hill can be climbed in high, it is a better practice to shift to a lower gear while the vehicle still has good momentum. This will save you time, lessen the strain on the engine and minimize the possibility of stalling on the grade.

Before starting down a steep or long grade, it is advisable to shift to the same gear you would use if driving up the hill. Shift to the lower gear and engage the clutch at once to hold the vehicle speed down. Do not allow the vehicle to gain speed after shifting to a lower gear and then engage the clutch. Such a practice is almost sure to cause damage to the drive line of the vehicle.

If the truck is equipped with a governor, the vehicle cannot be driven faster than the speed for which the governor is set when on level roads or when going up a grade. When going down hill, do not, under any circumstances, allow the truck to exceed the governed speed of the engine. Faster speeds will "rev up" the engine beyond the requirements for which it was designed and may result in damage. Use the brakes intermittently to hold the speed of the truck within limits.

## FACTS ABOUT ECONOMY

Your Dodge truck is designed and engineered for economical operation. Trucking economy, however, varies with different operating and load conditions. These factors cannot be controlled by the truck manufacturer, but, to a great extent, can be controlled by the driver.



**GROSS WEIGHT = WEIGHT OF TRUCK + PAYLOAD**

Overload and high speeds are the greatest enemies of economy. Either of these conditions can increase operating and maintenance costs. Your truck should not be loaded in excess of the recommended gross laden rating. The gross laden rating means the combined weight of the complete truck and the load it carries. To determine the gross laden weight of your truck, weigh the truck just as it operates when fully loaded.

Unnecessary high vehicle and engine speeds should be avoided. More power is required to propel a vehicle a given distance at 50 miles per hour than at 30 miles per hour. Fuel and oil consumption are increased by high speeds.

Sudden starts and stops reduce fuel economy and increase maintenance costs.

Inflate tires to the recommended pressure and maintain wheel alignment. Under-inflated tires or misaligned wheels waste fuel because they increase rolling friction. When these conditions exist, more power — more fuel — is required to move the truck.

Allowing the engine to idle while the truck is standing for any length of time will reduce fuel economy and increase operating costs.

Engine operating temperature is an important factor in engine economy. If the engine operates at a temperature above normal, the engine oil temperature will rise and reduce oil economy. When the engine is continuously operated below normal operating temperature, the fuel mixture is not completely burned in the combustion chambers. Some unburned fuel will pass the pistons and dilute the engine oil. Also, condensation and sludge may form in the crankcase. Dilution, condensation, or sludge, deteriorate oil and promote rapid wear of the engine parts which the oil is expected to protect.

The Dodge truck engine is equipped with advanced and outstanding features which, under normal operating conditions, will automatically maintain the proper engine operating temperature and ventilate the crankcase. If the engine is operated under unusual conditions, and normal engine temperatures are not maintained, economy will suffer. If such is the case, it is suggested that you see your Dodge dealer for his recommendations.

Maintenance and lubrication, as specified in this manual, will insure engine efficiency, help materially to reduce frictional power loss, and thus improve economy.

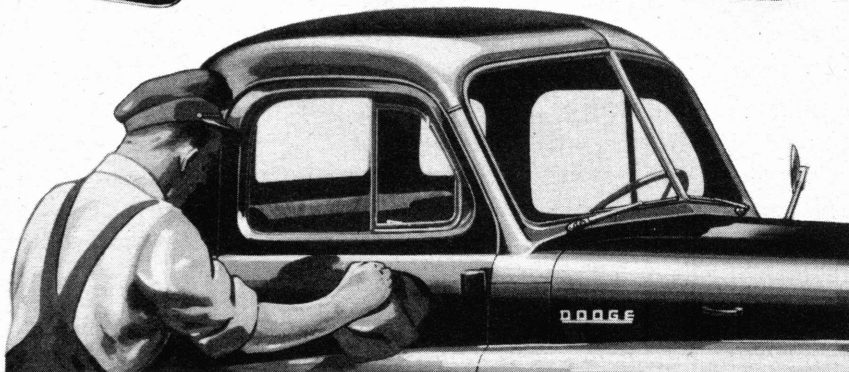
# GENERAL CARE OF YOUR TRUCK

The following suggestions are provided to assist you in keeping your truck neat and clean. For your convenience, your Dodge dealer carries a complete line of cleaners, polishes and other like materials.

## WASHING AND POLISHING

The finish on your truck should be washed often enough to keep it free from dust and road scum. Wash with a sponge and plenty of cold or warm water. Dry with a damp chamois. A mild soap may be used occasionally, if desired, with a thorough rinsing afterwards. Your truck should always be washed in a shaded place, as washing it in strong sunlight may result in water spotting and staining which are difficult to remove.

During the winter months, it is particularly important to make



**CLEANING THE CAB**

sure that anti-freeze preparations do not get on the finish. It is common practice in most communities to use chemicals, particularly calcium chloride, on the streets to melt snow and ice. The use of such chemicals results in a slush which will be harmful to the finish of your truck unless it is washed off as soon as possible.

If the paint surface is not kept clean, the action of the elements and accumulation of dirt, road scum, corrosive salts, etc., will eventually damage the finish of the truck. The more frequent washing will lessen the necessity of using polish. If, after extended neglect, strong sunlight and the elements have caused the finish to dull, MOPAR Liquid Automobile Polish can be used to restore the luster of the finish. Use of paste waxes or abrasive cleaners is not recommended.

#### **CLEANING GLASS**

To clean windows, windshield and other glass equipment, use MOPAR Glass Cleaner, or wash with water and wipe dry with a linen cloth or chamois. A cloth slightly dampened with household ammonia will remove the thin scum difficult to remove with water alone.

#### **CLEANING THE RUNNING GEAR**

To clean the under side of the truck and the inside of the wheels, use a small, powerful stream of water from a hose. This will dislodge mud and dirt that may have accumulated. Occasionally, the use of a stiff brush may be necessary.

#### **REMOVING TAR OR ROAD OIL**

Tar or road oil can be removed from the cab and body without injury to the finish by using one of the standard brands of tar remover. If the tar has hardened into lumps, soften it first by using lard, butter or kerosene. Then, treat the finish with MOPAR Liquid Automobile Polish.

#### **CLEANING CHROME TRIMMING**

Clean chromium-plated parts with MOPAR Chromium Polish. It will remove rust where the plating has been scratched or rubbed off and will cover the spot to prevent more rust forming.



## LUBRICATION

The purpose of a lubricant is that of separating sliding surfaces and reducing friction. Trucks are operated in all types of service. Some are used in long distance transportation while others are limited to short hauls. Every known type of terrain is traversed and extremes of cold and heat are encountered. The prime factor to combat these conditions and obtain efficient and economical truck operation is proper lubrication.

Thus, it is highly important that your truck be lubricated as recommended. We urge you to read carefully the following paragraphs concerning this subject, and to study the lubrication charts on pages 18 to 23, inclusive, so that you will know the lubrication requirements for your truck.

### *ENGINE OIL RECOMMENDATIONS*

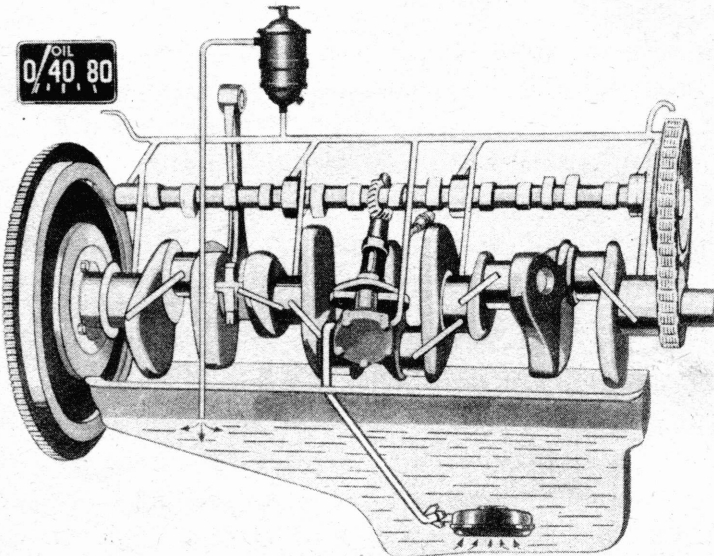
The engine oil recommendations given in the lubrication chart, page 18, are based upon the principle that the lower viscosity oils circulate more rapidly and lubricate parts with closer clearances more readily than the heavier oils. Use only well refined or high quality products. Purchases should only be made from reputable refineries or dealers.

### **FIRST 1,000 MILES**

During the break in period, or the first 1,000 miles, use SAE 10W Engine Oil above  $-10^{\circ}$  F. Below this temperature, use SAE 5W, except when the truck is used on long hauls or for heavy duty service. In which case, SAE 10W Engine Oil blended with 10% colorless, refined kerosene should be used. If it is necessary to add oil during the first 1,000 miles, follow these recommendations.

### **AFTER 1,000 MILES**

When your speedometer registers 1,000 miles, the oil pan should be drained and refilled with the proper viscosity oil, according to the anticipated atmospheric temperature. For abnormal conditions, see page 14. See lubrication chart, page 18, for engine oil recommendations and frequency of oil changes.



**ENGINE OILING SYSTEM**

The oil pan should be drained while the engine is at normal operating temperature. Oil will drain more completely when hot, and more of the foreign matter will be removed with it.

### **ABNORMAL CONDITIONS**

**WINTER DRIVING**—If the truck is driven for short distances of only a few miles at a time and at low speeds, or is engaged in frequent stops or door-to-door delivery type of service, moisture will condense in the oil pan and form a sludge, which may freeze and clog the oil inlet screen. Under conditions of this kind, the engine does not become sufficiently warm to expel the condensation through the crankcase ventilating system. Consequently, the engine oil should be changed approximately every 500 miles — under extreme conditions more often than every 500 miles.

This sludging condition can be corrected to a large degree by the use of various equipment, which tends to increase the engine temperature rapidly, such as a 180° thermostat, a winterfront, etc. Note: when using a 180° thermostat, it is necessary to use a permanent type of anti-freeze to prevent boiling away.

As an alternative to this frequent change period or use of special equipment, an occasional drive of 30 miles or more at higher speeds will help expel the condensation through the crankcase ventilating system. If these longer drives are made frequently, or high engine temperature is maintained by using a 180° thermostat, a winterfront, etc., or other equipment, the change period may be extended to the normally recommended winter change.

**DUSTY CONDITIONS**—Driving over dusty roads or through dust laden air increases enormously the problem of keeping abrasive materials out of the engine. Under these conditions, make certain that the carburetor air cleaner, the oil filler pipe cap air cleaner, the crankcase ventilator outlet pipe air cleaner (if so equipped), and the brake booster control valve air cleaner (if so equipped), are clean and in serviceable condition at all times. This will tend to reduce the amount of abrasive material that may enter the engine.



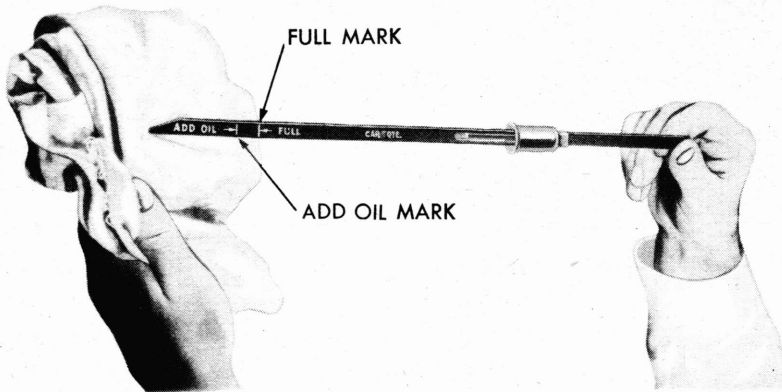
As a further precaution in preventing excessive wear and possible failure of parts under these dusty conditions, the engine oil and oil filter or oil filter element should be changed more frequently. The frequency will depend upon the severity of the dust conditions. Therefore, no definite recommendations can be made.

It is always advisable to drain the crankcase while the engine is at normal operating temperature. Oil will drain more completely when hot, and more of the foreign matter and dirt will be removed with it.

### CHECKING OIL LEVEL

The oil level in the crankcase should be checked each time you stop for fuel. The oil level indicator is marked "FULL" and "ADD OIL." The "FULL" mark shows the proper level of oil after the engine has been standing for a few hours. As soon as the engine has started running, the oil level will drop somewhat, due to the filling of oil passages and the filter.

A quart of oil should be added when the oil level is at (or just below) the "ADD OIL" mark on the oil level indicator. The level should never be allowed to remain below the "ADD OIL" mark.



**CHECKING THE OIL LEVEL**

## **OIL FILTER**

The function of the oil filter on the engine is to remove dirt and foreign material from the oil. This "oil cleaning" is a continuous process. The filter element will continue to trap dirt until it becomes clogged. Due to the manner of connecting the oil filter to the oiling system, clogging of the filter will not stop the circulation of oil to the bearings. However, when the oil filter becomes clogged, it ceases to filter the oil. So, it is advisable to install a new MOPAR oil filter or oil filter element (depending on the type of filter used) approximately every 10,000 miles, under normal conditions, and then at the time of an oil change. In dusty areas, or under severe operating conditions, check the oil and service the filter more frequently, or service the filter whenever the oil appears to be excessively dirty. After replacing the oil filter or oil filter element, run the engine for five minutes and check for possible oil leaks.

## **CARBURETOR AIR CLEANER**

Road dust and other abrasives are filtered from the air entering the engine through the carburetor by means of an air cleaner. The cleaning and servicing of the air cleaner is explained in the lubrication chart, page 19. If the air cleaner is properly and periodically serviced, the parts of the engine subjected to wear are protected from the abrasive action of dust and dirt. The results are longer engine life and the greater assurance of economy and efficiency for thousands of extra miles. The air cleaner should be serviced at regular intervals—even daily may be necessary under extreme conditions in dusty territory.

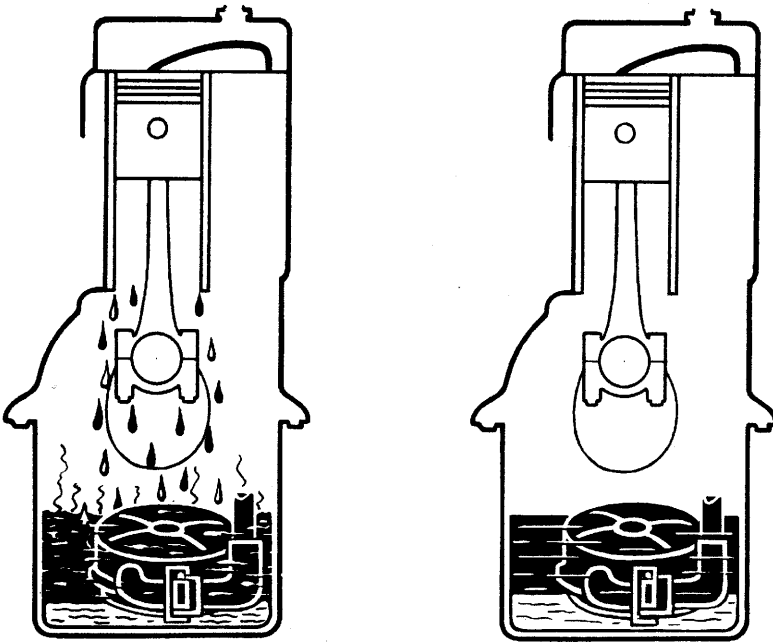
## **CRANKCASE VENTILATION**

During the operation of a truck engine, the engine oil may become diluted with water or fuel, or contaminated with acid and other foreign elements which tend to reduce the lubrication effectiveness of the oil. However, the engine of your Dodge truck is equipped

with a special ventilating system which expels a large amount of these undesirable elements. Nevertheless, enough remain to make it advisable to drain the crankcase at the intervals recommended in this manual.

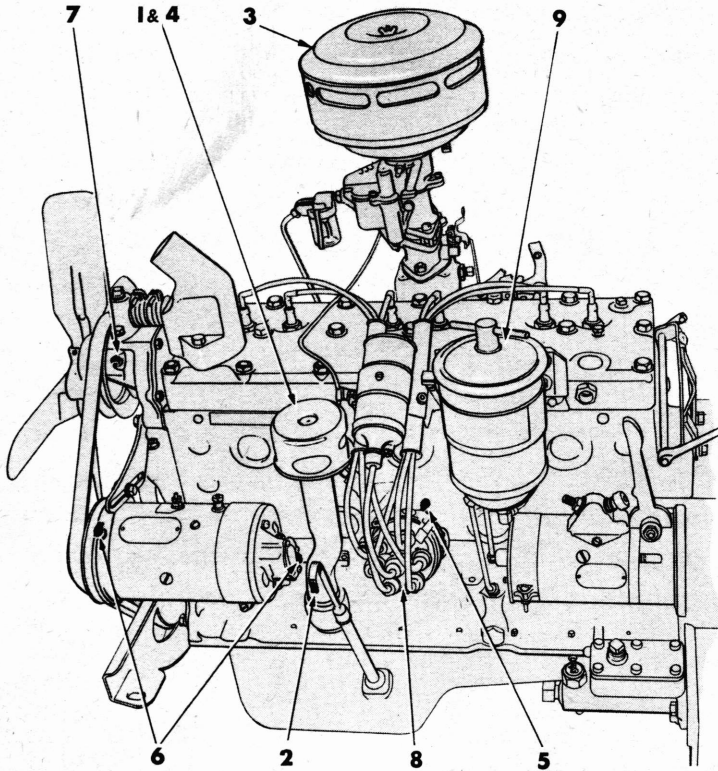
The non-lubricating elements accumulating in the engine oil may damage the highly finished metal surfaces. Water has no lubricating value and is likely to freeze. Fuel thins the oil—reduces its value as a lubricant. Acid attacks metal surfaces and the result is excessive wear.

Air for ventilating the crank chamber enters the oil filler pipe. This air is filtered as it passes through the air cleaner in the filler pipe cap. Therefore, in order for the crankcase ventilation system to function efficiently and expel as much of these undesirable elements as possible, the oil filler pipe air cleaner should be serviced as recommended in the lubrication chart, page 19.



**ENGINE OIL DILUTION AND OIL PAN SLUDGE**

# ENGINE LUBRICATION



1. **ENGINE OIL**—(Refill capacity 5 qts. When changing filter element, add 1 qt.) Break-in period—first 1,000 miles, see page 13. Following the break-in period, oil changes should be made under normal conditions, every 2,500 to 3,000 miles, using the following recommended viscosity oils.

If it is anticipated that the atmospheric temperature will be:

Not lower than +32° F.....Use SAE 30  
As low as +10° F.....Use SAE 20W  
As low as -10° F.....Use SAE 10W  
Below -10° F.....Use SAE 5W. See Note.

**NOTE:** If truck is used on long hauls or for heavy duty service, SAE 5W Engine Oil is not recommended, instead, use SAE 10W Engine Oil blended with 10% colorless refined kerosene. If kerosene is not obtainable, consult your dealer or any reputable oil company which should have specially prepared oils for these conditions.

2. **OIL LEVEL INDICATOR**—Maintain oil level in oil pan above the "ADD OIL" mark on the indicator. Do not add oil until the oil level approaches the "ADD OIL" mark. Never allow the oil level to remain below the "ADD OIL" mark.

**EVERY ENGINE OIL CHANGE**

3. **CARBURETOR AIR CLEANER**—Under normal conditions, the air cleaner should be examined at each recommended crankcase oil change interval. If the sump is found to contain a semi-solid mixture of oil and dirt up to the lower offset in the reservoir, the air cleaner should be removed and thoroughly cleaned. Remove cover and filter element and rinse element clean in kerosene and drain. Empty the dirty oil from reservoir, clean out the sump and refill to indicated level with the following viscosity engine oils.  
 Above +32° F. .... Use SAE 50\*  
 Below +32° F. .... Use SAE 20W  
 \*If SAE 50 oil is not available, SAE 40 oil may be used. In dusty territories, the air cleaner should be cleaned often. Under extreme conditions, cleaning once a day may be necessary.
4. **OIL FILLER PIPE CAP AIR CLEANER AND CRANKCASE VENTILATOR OUTLET PIPE AIR CLEANER** (If so equipped)—Remove cap, wash filter element in kerosene, dry thoroughly and dip in fresh SAE 50 Engine Oil. If this grade of oil is not available, SAE 40 Engine Oil may be used. Reinstall cap. In dusty territories, these air cleaners should be cleaned more often.
5. **DISTRIBUTOR**—One oil cup. Add five to ten drops of light Engine Oil. **NOTE:** When replacing breaker points, it is recommended that the cam be coated with a thin film of petrolatum. **CAUTION:** See that no oil or petrolatum gets on or near the breaker points.
6. **GENERATOR**—2 oil cups. Five or ten drops of light Engine Oil in each. **CAUTION:** After oil is applied, be sure the oil cup covers are closed.

**EVERY 1,000 MILES**

7. **WATER PUMP**—1 fitting. Water Pump Grease.

**EVERY 10,000 MILES**

8. **DISTRIBUTOR WICK**—Remove cap and rotor, and apply two or three drops of light Engine Oil to felt wick in top of cam. **Caution:** See that no oil or petroleum gets on or near breaker points.
9. **OIL FILTER**—Replace oil filter or oil filter element at this mileage under normal conditions (to coincide with an engine oil change), or when the oil becomes dirty. **CAUTION:** After servicing the filter, run the engine at idle speed for about five minutes and check for oil leaks. The oil level in the oil pan should then be corrected to compensate for the oil absorbed by the new filter or filter element.

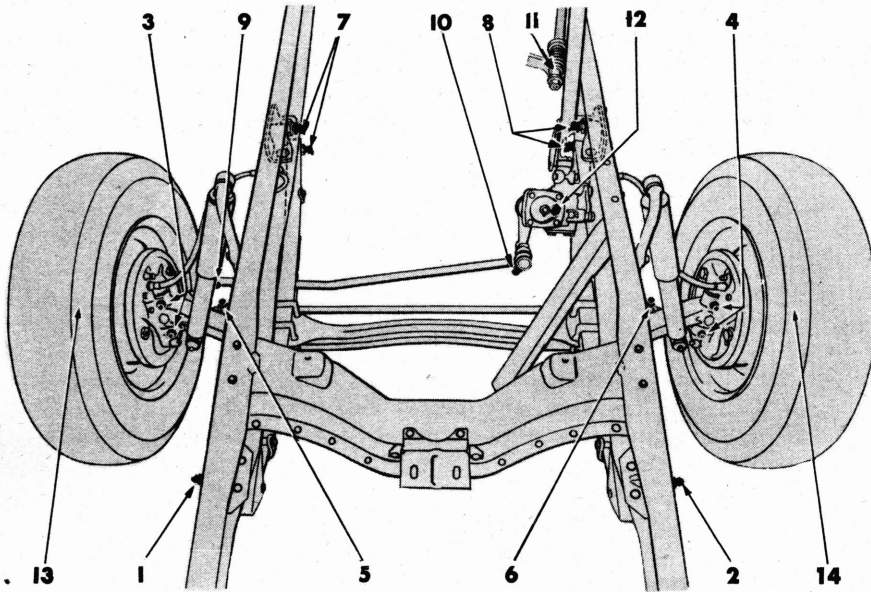
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**CAPACITIES**  
U.S.S. MEASURE

Engine (refill) .....	5	qts.
Fuel Tank .....	18	gals.
Cooling system .....	17- 1/2	qts.
Transmission .....	3- 1/2	pts.
Rear Axle .....	3- 3/4	pts.

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## FRONT END, FRONT AXLE AND STEERING GEAR LUBRICATION



### EVERY 1,000 MILES

1. & 2. FRONT SPRING BOLT—1 fitting each side. Chassis Lubricant.
3. & 4. KING PIN BUSHINGS—2 fittings each side. Chassis Lubricant.
5. & 6. TIE ROD BALL JOINT—1 fitting each end of tie rod. Chassis Lubricant.
7. & 8. FRONT SPRING SHACKLE—2 fittings each side. Chassis Lubricant.
9. & 10. DRAG LINK BALL JOINT—1 fitting each end of drag link. Chassis Lubricant.
11. GEAR SHIFT ROD END—Rub a thin film of MOPAR Lubriplate or Water Pump Grease in the groove.

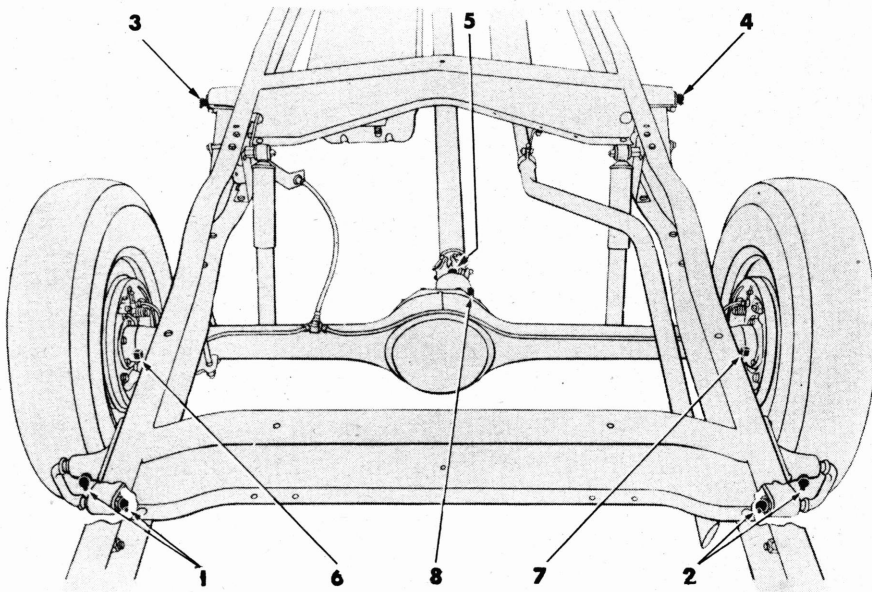
### EVERY 10,000 MILES

12. STEERING GEAR—Remove filler plug and check level of lubricant. If lubricant level is below filler plug hole, replenish with SAE 90 Low Cold Test Fluid Gear Lubricant. In extremely cold weather, dilute with small amount of SAE 10W Engine Oil to ease steering.

### EVERY 20,000 MILES

13. & 14. FRONT WHEEL BEARINGS—Remove hub and examine. If grease is in good condition, do not remove bearings or grease, but add grease if necessary. If not in good condition, remove bearings, clean and repack. For low annual mileage under extreme heavy duty conditions, the bearings should be examined more frequently. Use short Fiber Wheel Bearing Grease when repacking bearings.

## REAR END AND REAR AXLE LUBRICATION



### EVERY 1,000 MILES

1. & 2. REAR SPRING SHACKLE—2 fittings each side. Chassis Lubricant.
3. & 4. REAR SPRING BOLT—1 fitting each side. Chassis Lubricant.
5. UNIVERSAL JOINT—1 fitting. Short Fiber Universal Joint Grease.

### EVERY 20,000 MILES

6. & 7. REAR WHEEL BEARINGS—Remove plug and inject  $\frac{1}{2}$  oz. Short Fiber Wheel Bearing Grease. Reinstall plug. CAUTION: Do not use high-pressure gun, or excessive lubricant. Otherwise, lubricant may be forced through the seals onto the brake lining. For severe service or in dusty areas, it is advisable to remove axle shafts and outer seals and repack bearings with Short Fiber Wheel Bearing Grease.
8. REAR AXLE DIFFERENTIAL—(Capacity 3- $\frac{3}{4}$  pts.) Drain and refill with Non-corrosive Truck Duty Hypoid Lubricant, using the proper SAE grades for atmospheric temperatures as shown below:

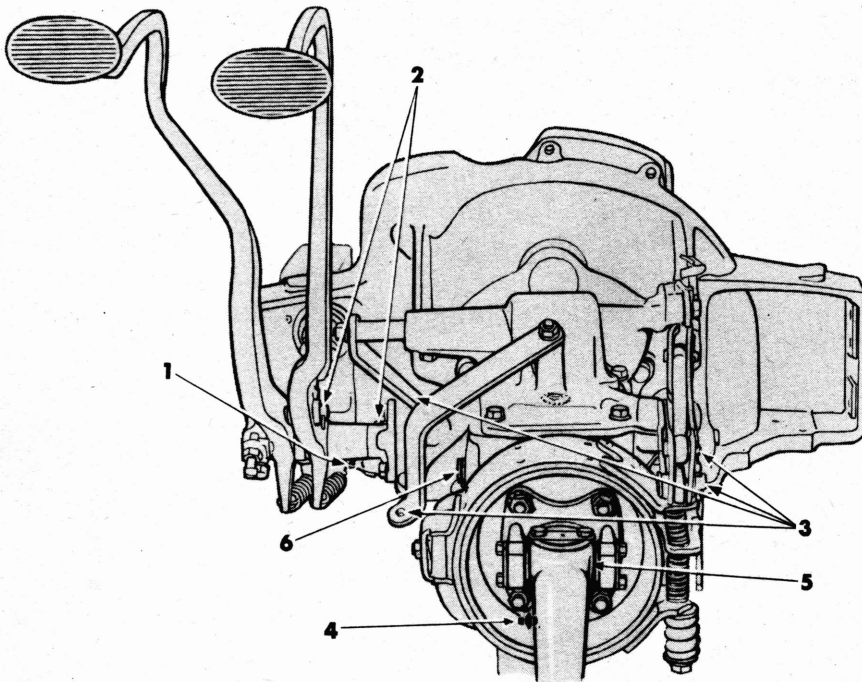
If it is anticipated that the atmospheric temperature will be:

As low as  $-10^{\circ}$  F. . . . . Use SAE 90

Below  $-10^{\circ}$  F. . . . . Use SAE 80

NOTE: Remove filler plug and check level every 1,000 miles. DO NOT overfill. Keep level at bottom of filler plug.

**LUBRICATION OF TRANSMISSION AND  
NEAR-BY CONTROLS**



**EVERY 1,000 MILES**

1. BRAKE PEDAL—1 fitting. Chassis Lubricant.
2. BRAKE PEDAL CLEVIS PINS, ROD CONNECTIONS AND WICK IN CLUTCH RELEASE FORK BEARING—Engine Oil.
3. HAND BRAKE AND GEAR SHIFT CONNECTIONS—Apply Engine Oil to clevis pins and rod connections. Also apply a few drops of Engine Oil to hand brake idler arm pivot.
4. PROPELLER SHAFT SPLINE—1 fitting. Chassis Lubricant.
5. UNIVERSAL JOINT—1 fitting. Short Fiber Universal Joint Grease.

**EVERY 20,000 MILES**

6. TRANSMISSION—(Capacity 3½ pts.) Drain and refill with Fluid Gear Lubricant, using the proper SAE grades for atmospheric temperatures as follows:

If it is anticipated that the atmospheric temperature will be:

As low as -10° F. . . . . Use SAE 90  
 Below -10° F. . . . . Use SAE 80\*

\*If SAE 80 is not obtainable, SAE 90 blended with 20% of SAE 10W Engine Oil may be used. Lubricants heavier than SAE 90 should never be used.



## MISCELLANEOUS LUBRICATION POINTS

1,000 MILES—DOOR HINGES, HOOD HINGES, LOCKS and other hard to lubricate places. Use MOPAR Dripless Penetrating Oil. DOOR STRIKER PLATES AND DOVETAILS. Use MOPAR Stainless Stick Lubricant. DOOR LOCK CYLINDERS. Use MOPAR Lubriplate.

10,000 MILES—SPEEDOMETER. Oil wick in housing above cable flange. 2 or 3 drops of MOPAR Speedometer Oil. SPEEDOMETER CABLE. Remove shaft and coat with MOPAR All Weather Speedometer Cable Lubricant and replace. DUAL ELECTRIC WINDSHIELD WIPERS (if so equipped). Soak felt washers at operating linkage pivots with Light Engine Oil. BLADE OPERATING SHAFTS. Remove screw in top of cover and add a few drops of Light Engine Oil.

\* \* \* \* \*

## POINTS REQUIRING NO LUBRICATION

THE CLUTCH RELEASE BEARING AND THE STARTER require no lubrication.

\* \* \* \* \*

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## SPECIAL ATTENTION

A truck operated principally on gravel or dusty roads may need lubrication attention more frequently than recommended in this manual and should be serviced accordingly.

\* \* \* \* \*

## WARNING! CARBON MONOXIDE GAS!

The exhaust gases from all motor vehicles are highly dangerous. While carbon monoxide gas is colorless, tasteless and odorless, it is extremely poisonous. Never start or run an engine in a closed garage.

# MECHANICAL INFORMATION

Uninterrupted satisfactory performance of any machine is in great part the result of efficient maintenance. This is especially true in truck performance.

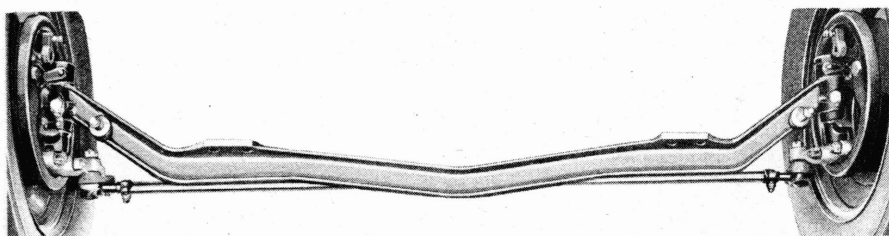
As you know, truck maintenance and servicing are important factors in keeping your truck on the road. Consequently, for your convenience, valuable information concerning the major parts of your truck is included in the following pages of this manual. Presented in a non-technical manner, this information will provide you with a better knowledge of "what makes the wheels go 'round'" and what should be done to keep them going around to your satisfaction.

If you desire additional maintenance information concerning your truck, you may obtain the Dodge Truck Shop Manual through your authorized Dodge dealer at its regular established price.

## **FRONT AXLE**

The front axle I-beam and steering knuckles are forged from high grade steel. They are of ample size to handle the gross laden weight recommended for your truck.

The front wheel bearings should be kept in proper adjustment. See adjustment instructions on page 51.

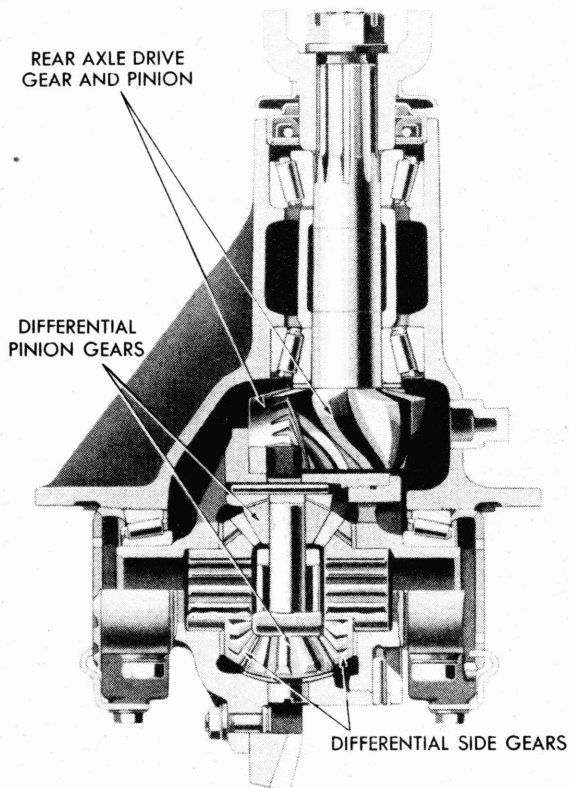


**FRONT AXLE**

The turning radius is controlled by stop screws in the steering knuckles. The right and left stop screws should be turned in until the steering gear bottoms and then backed out to get the gear slightly off bottom. This will provide maximum turn. With this adjustment, there should be 1 1/2 to 2 inches clearance between the tires and the frame with the front wheels turned to the extreme position.

When properly adjusted, the stop screws prevent the steering gear from bottoming. Otherwise, undue stress would be placed on the steering mechanism.

The front wheels should toe in 1/8 inch when measured at hub height. Adjustment can be made by loosening the clamp bolts at both ends of the tie rod and turning the tie rod. The rod has a right hand thread on one end and a left hand thread on the other end. Be sure to tighten the clamp bolts after making the adjustment.



**REAR AXLE DIFFERENTIAL**

(See page 26)

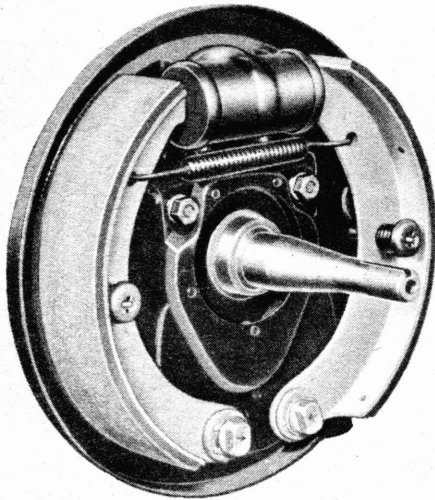
## REAR AXLE

The rear axle is the semi-floating type. Tapered roller bearings are used throughout the axle assembly and all bearings are adjustable. However, since adjustments are seldom needed and special tools are required in the operation, it is recommended that the work be done by your authorized Dodge dealer.

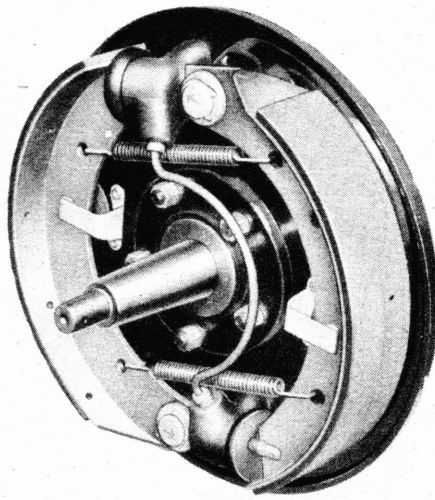
It is important that the level of lubricant be maintained in the axle housing and that the rear wheel bearings be lubricated strictly in accordance with the maintenance schedule. Always use a high quality lubricant. Do not over-lubricate. Otherwise, lubricant may work into the brakes and cause erratic brake operation. A vent is provided at the top of the axle housing to prevent air pressure from building up and forcing lubricant into the brakes. However, this vent is not large enough to allow excess lubricant to escape.

## BRAKES

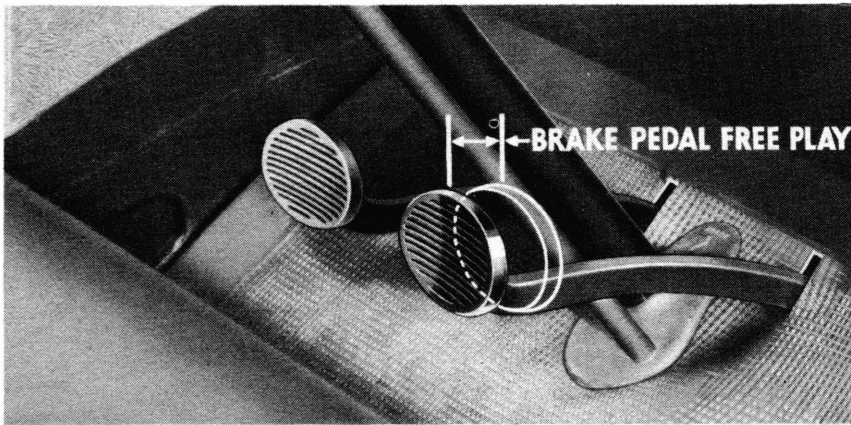
Dodge perfected Hydraulic Brakes require a minimum of attention. Minor adjustments compensate for natural lining wear and can be easily made. These adjustments should be made periodically to maintain maximum braking efficiency.



LEFT FRONT BRAKE



LEFT REAR BRAKE



### ***BRAKE PEDAL FREE PLAY***

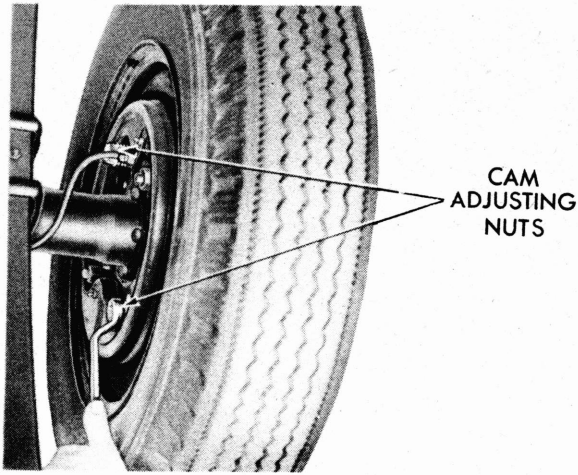
Free travel of the brake pedal is important. The total free travel consists of travel of the master cylinder piston rod before it touches the piston, travel of the piston to seal the bleeder port, and the travel of the shoes to take up clearance from the free running position to the position of contact with the brake drums. The total free travel of the pedal (from full released position to the point where the shoes contact the drums) is  $3/4$  in. to 1 in. This is obtained by proper brake shoe adjustment.

### ***MINOR BRAKE ADJUSTMENT***

A quick method of adjusting the brake shoe cams is as follows: First, jack up the truck so one wheel can be rotated freely. Then, while rocking that wheel forward and backward, bring the shoe out with the top adjusting cam until a moderate drag is obtained. Adjust the other shoe in the same manner. It is important that these adjustments be made the same way for the other three wheels.

### ***MAJOR BRAKE ADJUSTMENT***

A major adjustment will not be necessary until considerable lining wear has taken place. In order to make a major adjustment or reline the brakes, it is necessary to remove the wheels and brake drums and reset the brake shoe anchor bolts. This will require the use of an approved rear wheel puller and a brake shoe adjusting gauge. It is recommended that major brake adjustments be made



### **SERVICE BRAKE ADJUSTMENT**

by your Dodge dealer because he has the necessary equipment and experience.

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## **IMPORTANT**

Make sure wheel bearings are correctly adjusted before attempting to adjust the brakes.

Make sure the brake adjustment is securely locked where lock nuts are provided.

Make sure the shoe facings are not worn excessively.

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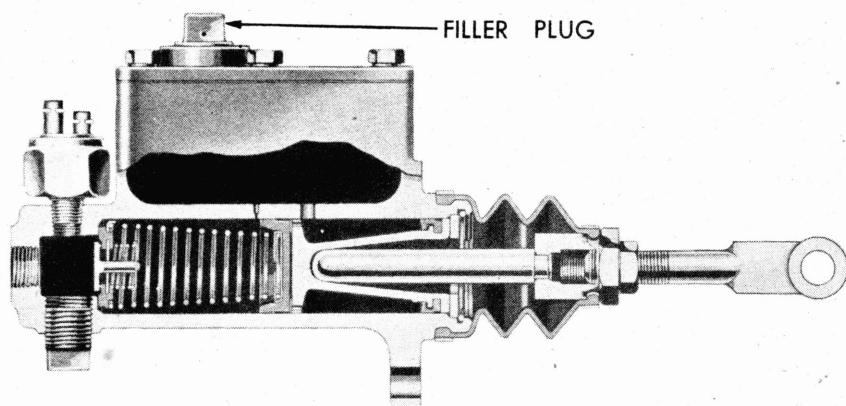
### **BRAKE FLUID**

It is important that only MOPAR Super Brake Fluid be used in the hydraulic braking system. This fluid, and the component parts of the hydraulic braking system, are designed to function together.

#### **FLUID LEVEL IN BRAKE MASTER CYLINDER**

The level of the brake fluid in the master cylinder should be checked whenever brake shoe adjustment is required. However, unless there is a leak somewhere in the system, it should not be necessary to add fluid. Keep the reservoir filled with brake fluid.

Never permit the fluid level to drop below "half-full." Fluid level can be checked by removing the filler plug from the top of the master cylinder. All dirt should be wiped off the cylinder and plug before the plug is removed in order to prevent dirt from entering the cylinder. Absolute cleanliness of the fluid is essential for the safe and satisfactory operation of the brake system.



**BRAKE MASTER CYLINDER**

#### **ADJUSTMENT OF HAND BRAKE**

Clearance of the hand brake band should be .015 to .030 inch. The clearance will increase with use because of natural wear of the lining. When the clearance becomes greater than .030 inch, reduce the clearance to .015 inch by adjusting the band. To adjust the brake band, proceed as follows:

1. Set hand lever in fully released position.
2. Remove anchor clip screw lock wire and adjust screw so band and drum have .015 inch clearance.
3. Lock anchor clip screw with lock wire.
4. Back off large adjusting bolt lock nuts until free.
5. Adjust centering bolt to obtain .015 inch clearance between brake lining and drum at the bottom of the drum. Lock the lock nut.
6. Lock bracket adjusting screw nut with lock nut.

7. Tighten large adjusting bolt nut until tension on the bracket adjusting screw is just relieved at either end.
8. Lubricate all frictional surfaces of brake control linkage and bracket adjusting screw with engine oil. See lubrication chart, page 22.

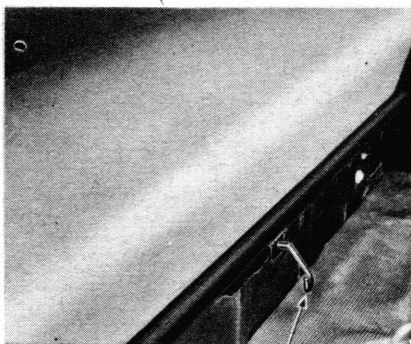
Free play (between the side of the anchor clip at the center of the band and the anchor) must not be more than .005 in. Otherwise, band distortion may result on brake application. This free play, if excessive, may be reduced by compressing the clip in a vise, or by holding the clip against a block or anvil and tapping it lightly with a hammer.

## **CAB**

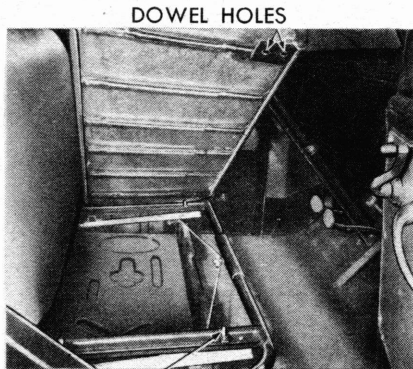
### **ADJUSTABLE DRIVER'S SEAT**

The driver's seat is adjustable. It can be moved by releasing the locking mechanism and sliding the frame forward or backward on the ways. A lever for releasing the lock is located near the floor at the center of the seat. To slide the seat, pull up on the lever. Release the lever to lock the seat in the desired position.

The seat back is attached to the seat frame. This feature makes it possible to adjust the position of the seat cushion by raising the cushion and replacing in desired position.



LOCK RELEASE LEVER



DOWEL

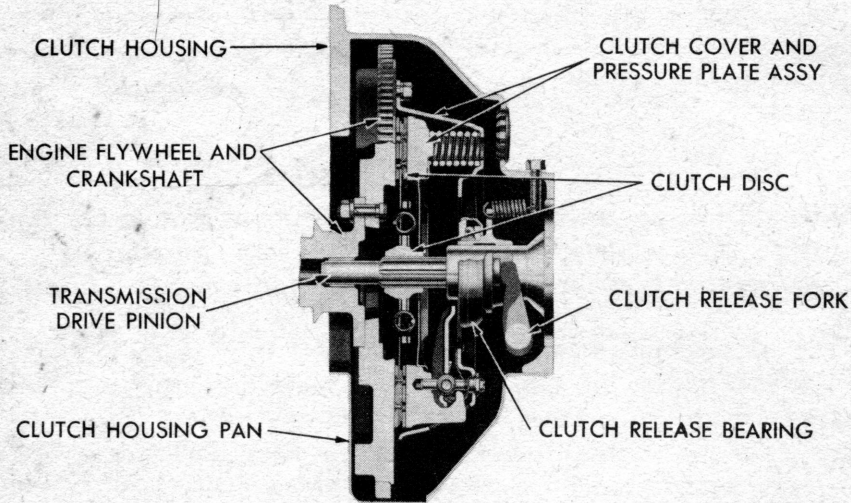
### **SEAT ADJUSTMENT**



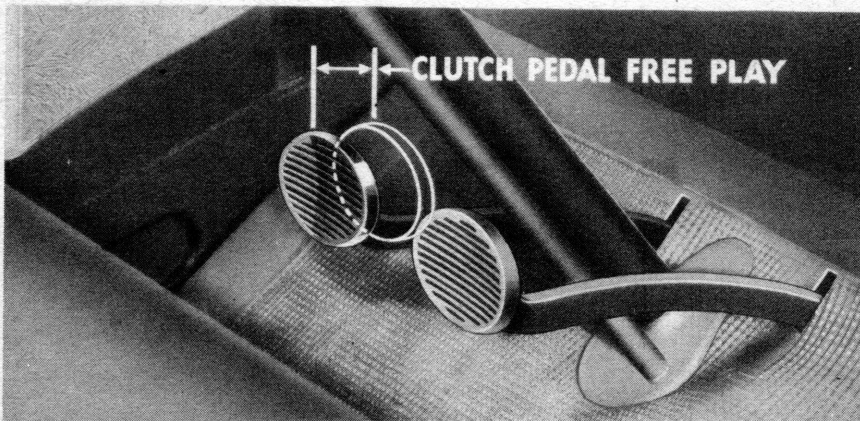
Two holes are provided in plates on the under side of the cushion so that the seat cushion can be located over dowels on the frame to either position.

## CLUTCH

The clutch in your truck is of ample size and is designed for extra long life. However, it is a friction type clutch, and if allowed to slip excessively (by careless operation or by "riding" the clutch pedal), sufficient heat will be generated within the clutch to shorten its life.



**CLUTCH**



**CLUTCH PEDAL FREE PLAY**

## CLUTCH PEDAL FREE PLAY

Free play or free movement of the clutch pedal is necessary to allow the clutch disc to seat properly and to avoid slippage. This free play insures proper clearance between the clutch release bearing and the clutch release levers.

The proper amount of free play for the clutch pedal is 1 inch. Adjustment is made by turning the clutch pedal adjusting collar set screws.

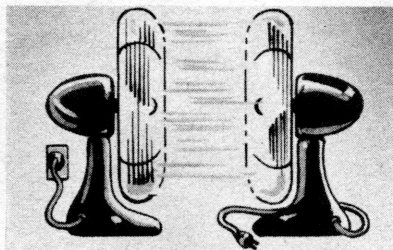
## FLUID DRIVE

If your truck is equipped with "Fluid Drive," you will find that smooth starts and stops, along with smooth driving, are a few of the outstanding benefits of this additional convenience.

### HOW THE FLUID DRIVE WORKS

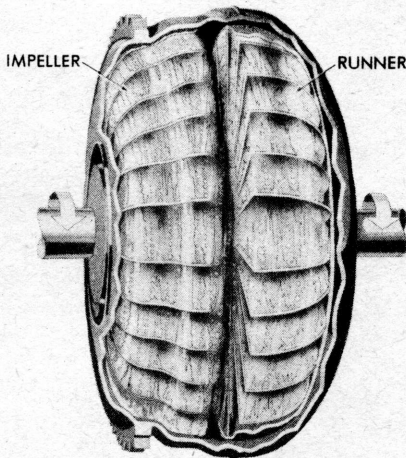
The Fluid Drive operates on the same principle as that which causes a fan to revolve (even though not connected with an electrical outlet), when it is placed facing a second fan which is running.

The air thrown off by the blades of the fan (which is running) strikes the blades of the fan (not connected with the current), causing them to revolve also. In the illustration, fan No. 1 represents the driving member of the Fluid Drive unit, while fan No. 2 represents the driven member, which transmits power to the rear axle of the truck through the conventional friction clutch and transmission.



1

2



1

2

The actual Fluid Drive unit in your Dodge Truck consists of two parallel facing rotors, each of which has a set of blades radiating from the center. The mechanism operates in a medium of fluid. One of the rotors in the unit, the *impeller (1)*, is attached to the crankshaft. The other, the *runner (2)*, connects with the clutch and the transmission. There is no mechanical connection between the two—the driving force is transmitted entirely by the fluid. As the impeller rotates, it throws fluid across the gap into the runner. This transmits engine power to the runner and so to the rear axle of the truck. NOTE. Whenever it is necessary to keep the engine idling while the truck is parked, shift the transmission gears to neutral.



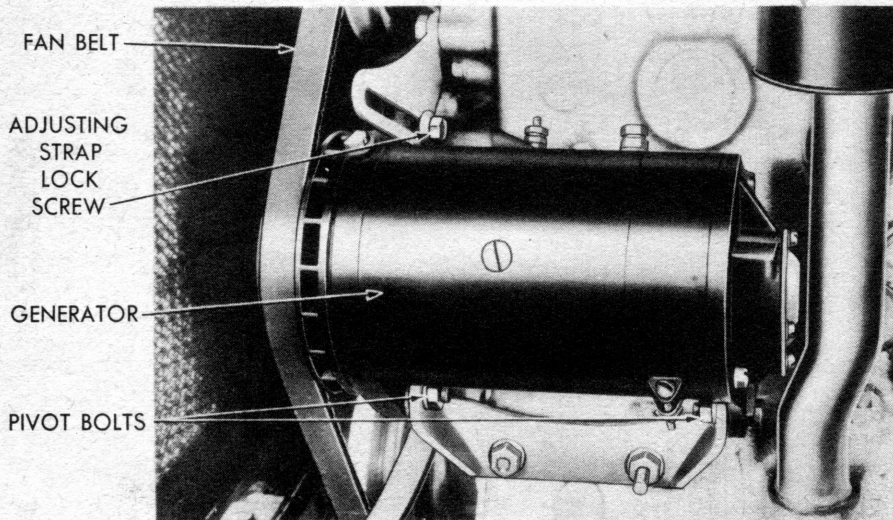
# THE COOLING SYSTEM

The engine of your truck operates most efficiently at a normal operating temperature. The cooling system of the Dodge engine automatically maintains the most desirable engine operating temperature under all normal operating conditions.

When the engine is started while cold, a thermostat prevents the circulation of water through the radiator. A permanent type by-pass allows the water to circulate only in the water jackets of the engine until normal engine operating temperature has been reached. When the water temperature, as shown by the heat indicator, reaches a predetermined point, the thermostat begins to open, allowing some water to circulate through the radiator. When the thermostat is fully open, it allows unrestricted radiator circulation. The water is cooled as it circulates through the radiator. When the temperature of the water in the engine drops below the desired temperature, the thermostat will close. This retards circulation of the water through the radiator, but not through the engine. Therefore, the thermostat and by-pass automatically maintain the desired temperature of the coolant.

## FAN BELT ADJUSTMENT

To assure satisfactory generator and water pump operation, keep the fan belt adjusted so that it can be deflected about 1/4 in.



FAN BELT ADJUSTMENT

with the fingers midway between the pulleys. To adjust the belt, first loosen the generator mounting bracket pivot bolts. Second, loosen the adjusting strap lock screw. Third, pull outward on the generator until the belt is under good tension. While holding the generator in this position, tighten the adjusting strap lock screw and the bracket pivot bolts. Do not overtighten the belt. Never make adjustment by moving the generator with a pry bar.

### **FILLING AND DRAINING THE COOLING SYSTEM**

Water for the cooling system must be clean and free from alkali which forms scale that may clog the passages. Never pour cold water or anti-freeze into the radiator when the engine is overheated. The level of the coolant should be 1-1/4 in. below the bottom of the filler neck. The fan belt, hoses and connections should be checked periodically.

When draining the cooling system in cold weather, be sure to drain the radiator as well as the cylinder block. To drain, open the drain cock at the lower corner of the radiator and also the drain cock on the left side of the engine.

### **THE USE OF ANTI-FREEZE**

At the approach of freezing weather, an anti-freeze cooling solution should be used. Always flush the system clean before adding anti-freeze in fall and after draining it in the spring. In climates where anti-freeze solutions are not required, flush the cooling system twice a year. When anti-freeze is not in use, add MOPAR Rust Resistor to the cooling system every time it is drained and re-filled. This is unnecessary when using an anti-freeze solution containing a rust resistor. Have the solution in the cooling system tested frequently during freezing weather to make certain that the engine is well protected against a freeze-up.

**CAUTION.** Anti-freeze solutions containing sodium chloride (common salt), calcium chloride, magnesium chloride, or any inorganic salt should never be used as an anti-freeze. Water soluble organic products, such as sugar, honey, or glucose, or any organic crystalline compounds are not recommended. Mineral oils, such as kerosene or engine oil may damage rubber parts and therefore prove harmful.

# THE ELECTRICAL SYSTEM

## BATTERY

The battery is located under the floor of the cab at the left side of the truck. To reach the battery, turn back the floor mat and lift the cover plate. Caution: Avoid overtightening the holddown bolts. (They should be tightened to a torque of 3 to 4 foot pounds.) Otherwise, undue stress will be placed on the battery case.

The battery should be kept clean and dry. When corrosion appears, or electrolyte is spilled, the effected parts should be washed with a bicarbonate of soda solution and then rinsed. Terminals of the battery cable should be kept clean and tight and coated with petroleum jelly.

Check the solution level in the battery cells at least once a week in hot weather and every two weeks in winter. Maintain the solution to the proper level (approximately  $\frac{1}{4}$  in. above the plates) by adding distilled water as necessary. For replacement, always use a MOPAR battery.

If you should store your truck for an extended period, remove the battery and take it to a battery service station for attention during the time your truck is out of service.

**CAUTION:** Never allow a flame or spark to be brought near the battery vent openings. Hydrogen gas, which forms in normal battery operation, may be present and explode. If it is necessary to use a flame near the battery, first remove the filler caps and blow out the gas gently enough to avoid splashing the acid.

## GENERATOR

Your Dodge truck is equipped with a large-capacity, air-cooled generator that has current and voltage regulation. The generator is designed to provide long-lasting operation and to produce more than ample current to meet the electrical needs of your truck, even though it operates under load most of the time.

Windings and bearings are of ample size to handle the generation of the current required.

The generator is air-cooled by means of a vacuum fan which circulates the air through the unit. Fresh air, drawn by the fan into the rear of the unit, flows over the brushes and commutator, and is forced out at the front. Cooling keeps pace with generator operation. As generator speed increases, more air is forced through the unit.

## **STARTER**

The starter is the positive shift type with a sliding gear and over-running clutch.

**CAUTION:** Avoid engaging the starter switch when the engine is running.

## **IGNITION SYSTEM**

The ignition system consists of the distributor, the coil, the spark plugs, the ignition switch and the battery. The purpose of the ignition system is to provide an electric spark at each spark plug at the correct time to ignite the combustible fuel mixture in each cylinder. Engine operation will be seriously effected if the distributor contact points and spark plugs are not properly gapped and the ignition is not correctly timed. The results of improper ignition are sluggish engine performance, poor pickup and excessive fuel consumption.

### **DISTRIBUTOR CONTACT POINTS**

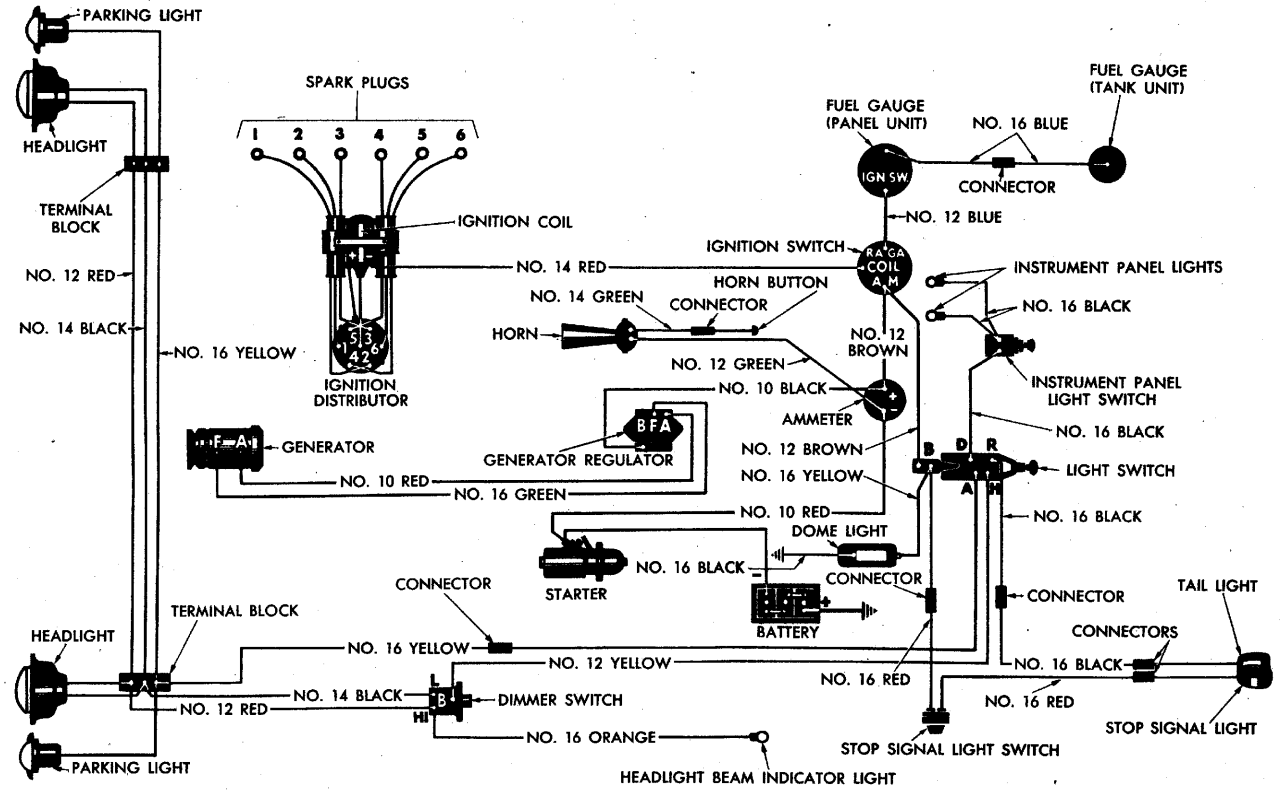
(See page 40)

Improperly adjusted contact points will affect ignition timing and engine operation. Before checking or adjusting contact points with a feeler gauge, turn the engine sufficiently to bring the breaker arm in contact with the peak of a lobe on the distributor cam. Due to the passage of primary current across the contact points, a normal transfer of metal from one point to the other may cause the surface of the points to become slightly rough or pitted. Such roughness must be removed with a fine file or hone before the points can be accurately adjusted with a feeler gauge. The points should open .020 inch. The adjustment is made by loosening the breaker point plate locking screw and turning the breaker point plate adjusting screw until the proper gap is obtained. **NOTE:** After filing or honing the distributor contact points, or after these points are replaced, *always reset the ignition timing.*

### **IGNITION TIMING**

The timing should be set so that the distributor contact points just start to open for No. 1 cylinder when the piston is on top dead center (T.D.C.).

When a standard brand of non-premium gasoline is used in



**WIRING DIAGRAM**



low altitudes, the engine will give its best performance if timed at standard setting.

With this timing, there will be a trace of spark knock when accelerating the engine with wide open throttle.

When using a lower grade fuel, or after carbon has accumulated, spark knock may be excessive with standard setting. In such cases, the ignition should be retarded not to exceed 4 degrees late of standard setting.

In high altitudes, there is less tendency for spark knock. This is true in low altitudes when using a premium gasoline. In such cases, improved performance may be obtained by advancing the spark not to exceed 4 degrees of standard setting.

Minor adjustment of the timing is easily made by loosening the screws at the outer ends of the locking plate lever and then rotating the distributor in the desired direction. When adjustment is made, be sure to tighten the lock plate screws.

To further adjust the ignition timing, loosen the clamping screws in the locking plate at the bottom of the distributor housing and rotate the distributor in the direction required. The rotor should be pressed against its normal direction of rotation so as to take up backlash in the distributor driving mechanism. Tighten the clamping screw after making the adjustment.

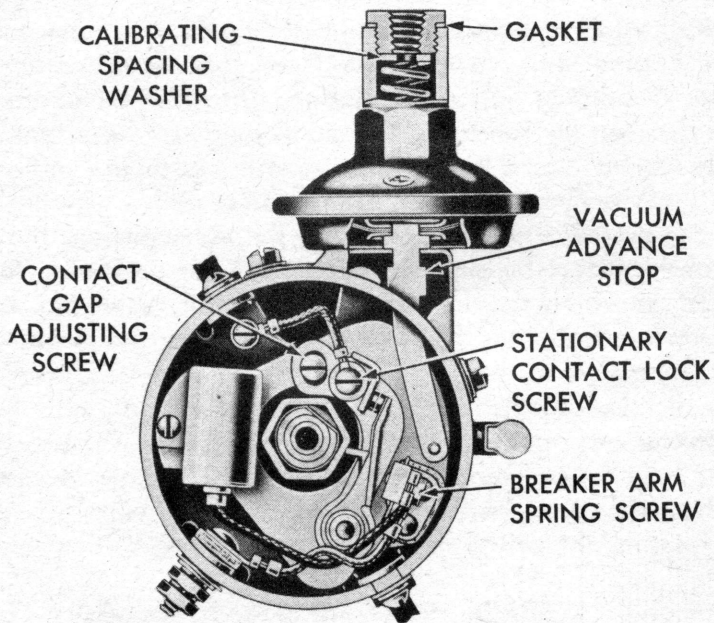
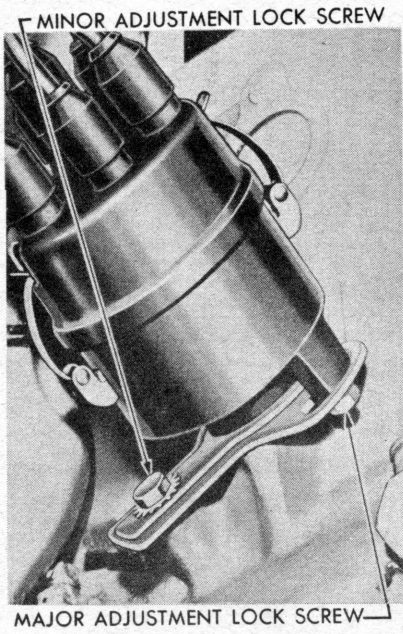
To reset ignition timing when the distributor has been removed, turn the engine until No. 6 piston is on top dead center (T.D.C.) with No. 6 exhaust valve just closing. The position of the piston can be checked by removing the small plug from the ignition timing hole above No. 6 piston and inserting a timing indicator, or by lining up the timing mark on the fan drive pulley with the pointer on the chain case cover. By watching the valve action, the proper stroke can be determined. No. 6 exhaust valve should close and No. 6 intake valve should open at that point. With No. 6 piston at the top of the exhaust stroke, No. 1 piston will be at the top for the firing stroke.

Turn distributor shaft in a clockwise direction until the rotor points to the cap post to which No. 1 spark plug wire is connected (with the breaker points just starting to open). Install the distributor and adjust timing as outlined above.

The firing order of the engine is 1-5-3-6-2-4.

### **SPARK PLUG ADJUSTMENT**

The gap between the electrodes of each spark plug should be .035 inch. The gap will gradually increase with use. Adjustment



**IGNITION DISTRIBUTOR ADJUSTMENTS**  
(Typical Views)

is made by bending the outside electrode. Measurement of the gap should be made with a wire rather than with a flat feeler gauge.

For efficient and economical operation, especially when gasoline with high lead content is used, clean the spark plugs frequently by sandblasting and regap as necessary. When replacing spark plugs, always use the same type as originally installed.

### **CLEANLINESS OF IGNITION SYSTEM — IMPORTANT!**

During the operation of the truck, a film of dirty oil and water will gradually accumulate on parts of the engine. This cannot be avoided. For best engine performance, it is essential that exposed parts of the ignition system be kept clean and dry.

The porcelains of the spark plugs, the outside of the distributor cap, and the exposed end of the spark coil should be kept clean at all times. The wires leading from the distributor to the spark plugs and spark coil should also be clean and free from dirt, water and oil.

### **LIGHTING SYSTEM**

The lighting circuit of your Dodge truck is protected by a circuit breaker located at the back of the light switch. In case a short circuit develops in the lighting system, the circuit breaker will automatically open and close before damage occurs. The circuit breaker will continue to open and close until the "short" in the circuit has been eliminated.

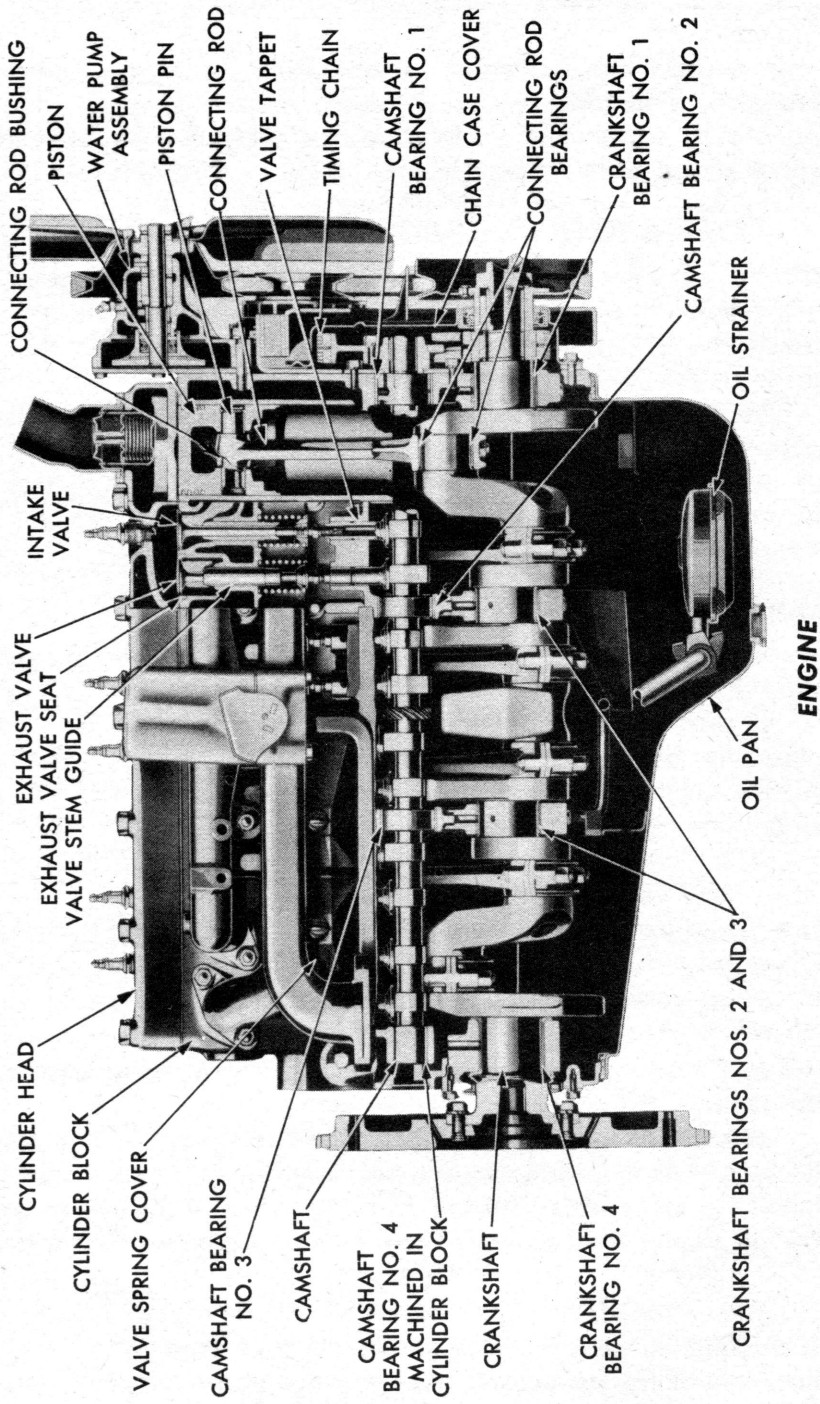
### **HEADLIGHTS**

The headlight lens, bulb and reflector are combined into one waterproof and dustproof, prefocused unit. If the bulb burns out or becomes damaged, replace the entire unit. To replace the unit, remove the headlight rim, loosen the retaining ring screws, turn the retaining ring to unhook it from the screws, and then pull off the connector.

To insure maximum driving comfort and safety at night, it is necessary that headlights be properly aimed. It is advisable to have the headlights on your truck checked occasionally by your Dodge dealer, and to have them properly aimed when necessary.

### **PARKING LIGHT BULB REPLACEMENT**

A parking light bulb can be replaced by loosening the screws on the front of the frame and removing the frame and lens assembly.



## **TAIL LIGHT BULB REPLACEMENT**

To replace a tail light bulb, just remove the lens.

## **THE ENGINE**

The engine is designed to produce ample power to enable you to operate your truck with ease. With proper attention and care, it will perform smoothly, efficiently, dependably and economically.

### **TROUBLE DIAGNOSIS**

The high compression engine in your truck will perform more efficiently when settings of the ignition and fuel systems are accurate. A frequent engine tune-up should be made in order to maintain maximum engine performance. When an engine tune-up is necessary, consult your Dodge dealer. He is equipped to do this work.

### **IF THE ENGINE STOPS—OR FAILS TO START**

The major causes of the engine stopping or failing to start are:

1. Fuel not reaching the cylinders, air-fuel mixture improper, or carburetor flooding.
2. Poor compression of fuel-air mixture in cylinders.
3. Ignition system failing to deliver adequate spark to spark plugs at proper time to fire the compressed fuel-air mixture.

To locate cause of the above conditions, first determine whether or not fuel is reaching the carburetor. To make this inspection, remove carburetor air cleaner, open throttle, turn engine with starter and look into the carburetor throat. A stream of fuel should be entering the carburetor.

If fuel is being delivered to the carburetor, check for a blocked orifice or jet in the carburetor. Unless there is an excessive air leak in the manifold or at the manifold gaskets, the fuel mixture should be burnable under reasonable compression.

If fuel is not being delivered to the carburetor, check for the following conditions:

1. Empty fuel tank.
2. Stoppage in the fuel line.
3. Closed vent in the fuel tank filler cap.
4. Air leak in the fuel line between the tank and the fuel pump.
5. Dirt, water or ice in the fuel line.
6. Inoperative fuel pump.

Fuel pump operation can be checked by disconnecting (at the pump) the fuel line from the tank to the pump, and holding a finger

over the fitting in the fuel pump body. If intermittent suction is felt when the engine is being cranked, the pump is in working order.

With a reasonable quantity of fuel mixture entering the cylinders, the engine should start and run, provided an adequate spark is delivered to each spark plug at the proper time. The intensity of spark can be checked by disconnecting a wire from a spark plug and holding it about  $\frac{1}{4}$  inch from the cylinder head while the engine is being cranked with the ignition switch on. If the spark jumps the gap to the cylinder head, it should be adequate to start the engine.

If sparks are not being delivered to the spark plugs, check for the following conditions:

1. Lack of contact at ignition switch.
2. Broken distributor drive shaft or gear.
3. Burned or dirty distributor points.
4. Loose or corroded battery terminals.
5. Loose or broken wire or connection in low tension circuit.
6. Shorted condenser.
7. Faulty ignition coil.
8. Faulty insulation on large wire running from the coil to the distributor cap.
9. Accumulation of moisture, dirt or oil, on the distributor cap, wires or spark plugs.
10. Cracked distributor cap or rotor.

The cause may be located by the following procedure: When the engine is being cranked with the ignition switch on and all other electrical equipment off, a slight intermittent discharge should show on the ammeter. If such a discharge does not show, check for the conditions covered by items 1, 2, 3, 4 and 5. If a continuous discharge shows and the distributor points are breaking, the condenser is shorted and should be replaced. If the intermittent discharge shows, check items 7 and 8 by pulling the large wire (running from the coil to the distributor) out of the distributor cap. Then, hold the end of the wire about  $\frac{1}{4}$  in. from the cylinder block while the engine is being cranked with the ignition switch on. If the spark does not jump that gap, install a new wire and try it again. If the spark then jumps the gap, the coil is in working order, but the old wire is faulty. If the spark does not jump the gap, install a new coil.

If spark is being delivered to the distributor cap, check items 9 and 10. The spark timing can be checked by following the pro-

cedure outlined under The Electrical System for setting ignition timing.

If the distributor shaft or gear is broken, the distributor rotor will not turn when the engine is cranked.

See "The Electrical System" for timing instructions.

### **OCCASIONAL OR REPEATED ENGINE MISS**

If a miss occurs in one or more cylinders while accelerating or at high engine speeds, the condition may be due to faulty ignition. In which case, the procedure under "If the Engine Stops or Fails to Start" should be followed and the spark plug should be carefully checked in accordance with instructions given in The Electrical Section of this manual.

If the engine ceases to fire momentarily at all cylinders when accelerating or at high speeds, the condition may be caused by a loose or broken electrical connection, or by restricted flow of fuel through the carburetor. (See "Fuel Pump", page 46, for information on cleaning the fuel filter.) A miss, which occurs only at idling or slow engine speed when the throttle is nearly closed, would indicate improper mixture of fuel and air, improperly adjusted spark plug gaps, or insufficient compression. (See page 46 for carburetor adjustments.) If adjusting the idling fuel and air mixture does not correct the condition, locate the cylinder in which the miss occurs by using a screw driver with an insulated handle to short circuit the spark plugs, one at a time. If engine operation is not changed by shorting a certain spark plug, that cylinder is not firing properly. When a spark plug which is firing properly is shorted, the engine will slow down and run more unevenly.

When the faulty cylinder is located, reset the spark plug gap or replace the spark plug, if necessary. If that does not eliminate the miss, the condition may be due to insufficient compression.

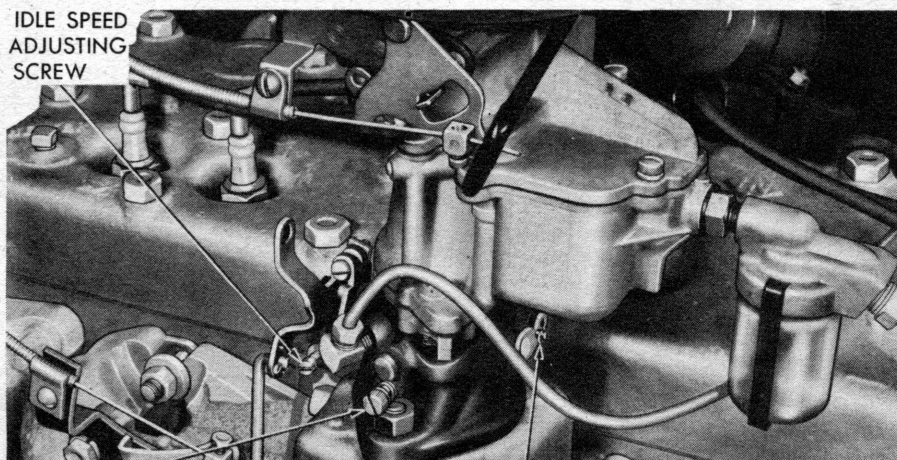
Poor compression may be caused by a scored piston, worn or broken piston rings, a leaky cylinder head gasket, poorly seating valves, or improperly adjusted valve tappets. If tappet clearance is as specified in the Adjustment Reference section of this manual, and the above suggestions have been followed without success, the truck should be taken to your Dodge dealer for servicing.

## **THE FUEL SYSTEM**

### **CARBURETOR**

The carburetor is designed and carefully calibrated to the proper mixture for most economical and efficient engine performance at

all speeds. Above idling engine speed, performance cannot be improved by carburetor adjustment. Therefore, provision is made for idling adjustment only.



IDLE MIXTURE ADJUSTING SCREW      ACCELERATOR PUMP CLIMATIC ADJUSTMENT

### **CARBURETOR ADJUSTMENTS**

The idling mixture can be adjusted by turning the adjusting screw. It should not be necessary to turn the adjusting screw more than one-quarter turn to make this adjustment.

The engine idling speed can be regulated by turning the throttle stop screw.

Adjustments should be made only when the engine is thoroughly warmed up.

### **FUEL PUMP AND FUEL FILTER**

Fuel is furnished to the carburetor by a mechanically-driven fuel pump. The fuel is filtered to remove sediment or water that may have entered the fuel tank. The filter bowl screws into the carburetor. Remove this bowl occasionally and clean thoroughly.

### **CARBURETOR AIR CLEANER**

It is important that the air cleaner be serviced as recommended in the lubrication chart, page 19.

### **FUEL GAUGE OPERATION**

The fuel gauge is operated by small electro-magnets controlled by a variable resistance unit linked to a float in the fuel tank. Electric



current is supplied to the gauge through the ignition switch. When the switch is turned off, the indicator moves to the *Empty* position. When the ignition switch is turned on, the fuel gauge instantly indicates the amount of fuel in the tank. Construction of the gauge is simple. The register unit contains two small magnetic coils. One of these coils exerts a constant force on the needle, while the other, which is wired to the resistance unit in the tank, exerts an opposing force that varies in proportion to the amount of fuel in the tank.

## **SPRINGS AND SHOCK ABSORBERS**

Dodge engineers have carefully designed the springs for your truck that will carry the maximum recommended load safely and easily over the roads you will be required to traverse. In addition, these springs are made to protect a partial or fragile load and also to provide riding comfort for you.

Spring bolts and spring shackles on your truck require frequent lubrication because the load carried by the truck develops high pressures at those points. See lubrication charts, pages 20 and 21.

The U-bolts, which hold the springs to the axles, should be kept tight. Loose bolts may cause spring leaf or center tie bolt breakage.

Hydraulic double-acting Oriflow shock absorbers (if the truck is so equipped) are designed to require little or no attention for many thousands of miles. The rubber mounting bushings must not be lubricated. If they squeak, it indicates they are worn or damaged and should be replaced. See your Dodge dealer when shock absorbers need attention.

## **STEERING SYSTEM**

The steering mechanism of your Dodge truck should require only ordinary maintenance to insure maximum steering ease and comfort. Misalignment of the front wheels or the frame should be corrected by your Dodge dealer.

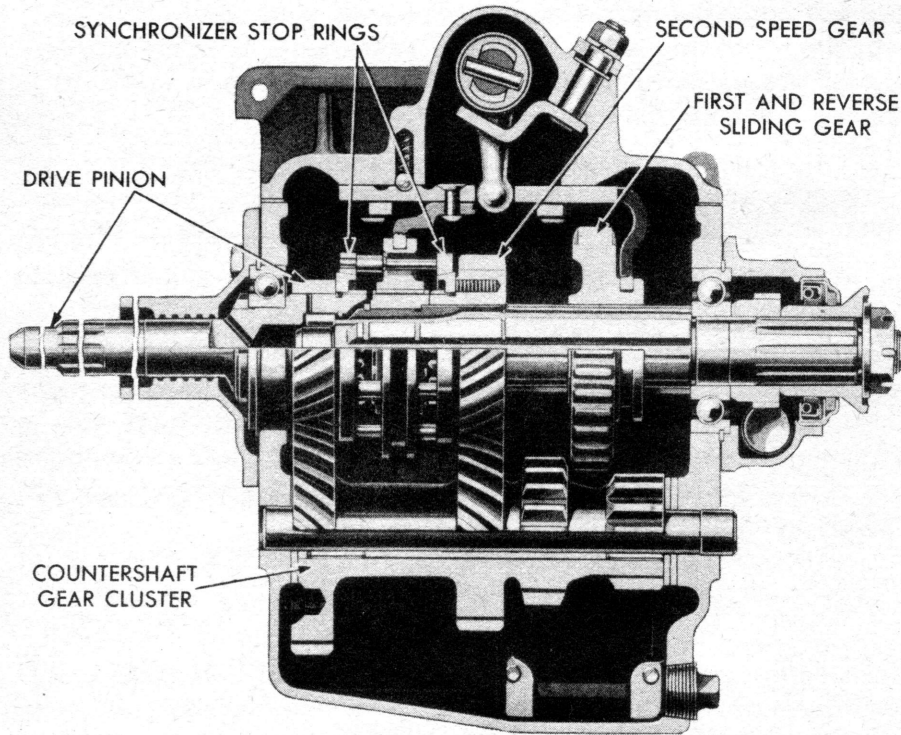
Proper and equal tire inflation is an important factor in steering.

The steering gear, steering connections and king pins must be lubricated as specified in the lubrication chart, page 20. Steering gear adjustment is seldom required. If it should become necessary to adjust it after considerable mileage, your Dodge dealer is best equipped to do the job.

# TRANSMISSION

The transmission puts to work the full power of the engine at low speeds for starting and pulling the truck up grades, and is used for backing the truck. See illustration of the transmission on this page.

Generally, under normal service, the only attention this unit requires is the checking of the lubricant level and replacement of the lubricant, according to the lubrication chart on page 22.



**TRANSMISSION**

## UNIVERSAL JOINTS

The universal joints require no adjustment. Lubricate as specified in the lubrication charts, pages 21 and 22.

# **WHEELS AND TIRES**

The wheels and tires require frequent attention to keep them in good condition. The wheel bearings require periodic lubrication. The wheels must also be kept tight on their hubs. Proper balance of the wheels and tires and alignment of the front axle are essential to long tire life.

## **CARE OF TIRES**

Pay particular attention to the condition of the tires on your truck. If given reasonable care, the tires should give you many thousands of miles of trouble-free service. But if you abuse them, the tires may fail prematurely.

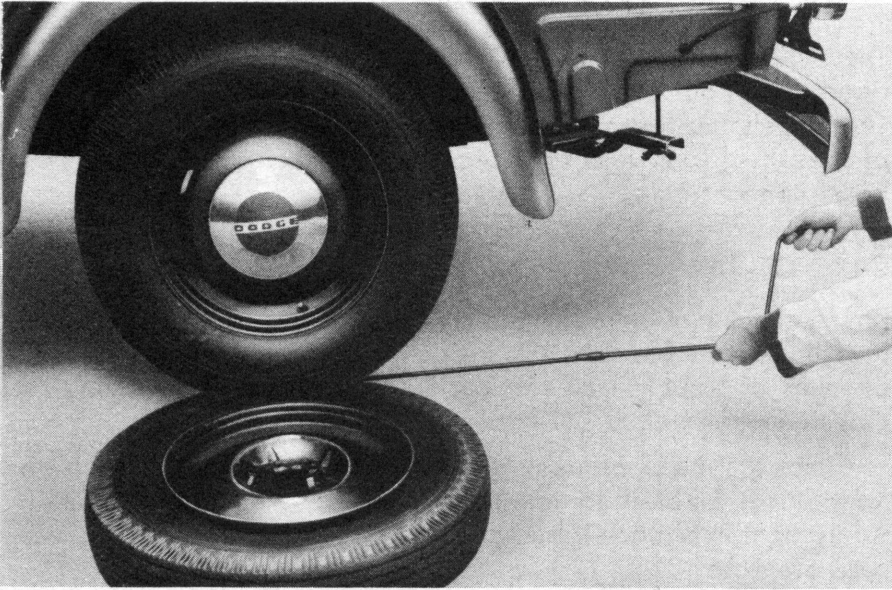
Check the tire pressures regularly—once a week is not too often. Keep them inflated to the recommended pressure given in the Adjustment Reference table, page 54. Always make sure the valve caps are tight.

If the front and rear tires on your truck are the same size, it is recommended that you rotate them about every 3,000 miles for maximum tire life. It is not necessary to remove the tire from the rim. Rotate the complete wheel and tire unit.

It is important that the wheel lock nuts be checked for looseness at regular intervals. They must be kept tight at all times. Also, when the wheels are removed and installed, the lock nuts must be tightened as tightly as possible with the special wrench furnished for that purpose. (The wheel lock nuts should be tightened to a torque of 375 to 425 foot-pounds.)

## **HOW TO CHANGE A TIRE**

1. Apply hand brake. It is also advisable to block one or more of the wheels to prevent the truck from moving.
2. Raise wheel off the ground with a jack.
3. Remove the nuts from the studs which hold the wheel to the hub.
4. Lift the wheel off the hub.
5. Completely deflate tire by removing the valve core from the valve stem of the inner-tube. The wheel has a raised rim section. Thus, it is necessary to snap the tire bead over the bead lock. This can be done by using the truck jack to cause the



#### **DISLODGING CASING FROM RIM**

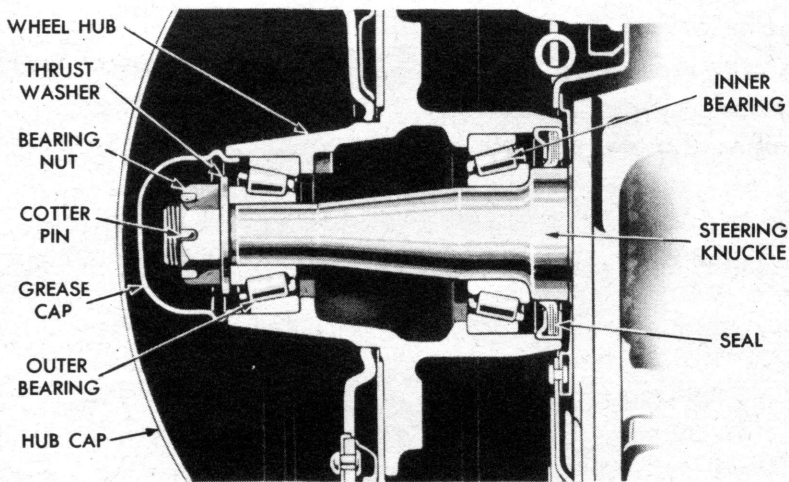
weight of the vehicle to bear on the side of the tire. See illustration on the next page.

6. After the tire bead has been forced over the bead lock, insert the tire tool between the bead of the tire and wheel rim. The beads of both sides of the tire opposite the point where the tool is inserted, should be squeezed together and worked into the channel between the sides of the wheel. This makes it very easy to lift one side of the casing off the wheel. Then, lift the other side off the wheel.
7. When installing a tire on the wheel, inflate the inner tube with just enough air to shape it. Place the tire and tube on the ground and insert the wheel into the tire. When the wheel is about halfway into the tire, it may be more convenient to turn the wheel and tire over and work the tire onto the wheel. Be careful not to pinch the inner tube between the casing or rim with the tire tool.
8. Inflate to exactly the correct pressure.

Tire mounting is made easier by coating the base of the tire bead with tire soap, soft soap or soapy water. This allows the tube to slide into the well of the rim and helps the tire bead to snap into place against the rim flange.

## ADJUSTMENT OF FRONT WHEEL BEARINGS

1. Raise front end of the truck so that the tire just clears the floor.
2. Remove wheel hub cap.
3. Remove the cotter pin from the front wheel bearing adjusting nut.
4. Tighten the adjusting nut while rotating the wheel in both directions until there is a slight bind. Then, back off the adjusting nut  $\frac{1}{8}$  to  $\frac{1}{4}$  turn and lock in this position by installing a new cotter pin.
5. Install the hub cap.



FRONT WHEEL BEARINGS

## ADJUSTMENT OF REAR WHEEL BEARINGS

Adjustment of the rear wheel bearings is seldom needed. However, special tools are required to make proper adjustment. Consequently, it is recommended that adjustment, which may become necessary, be made by your authorized Dodge dealer.

# ADJUSTMENT REFERENCE

## AXLE—FRONT

Toe-in (actual measurement) . . . . .  $\frac{1}{8}$  in.  
Caster (no load) B-3-B—3 deg.—10 min.; B-3-C—2 deg.—32 min.  
Camber . . . . .  $1\frac{1}{2}$  deg.  
*Caster and camber must be uniform at both wheels.*  
King pin angle . . . . . 4 deg.

## AXLE—REAR

Backlash between ring gear and pinion . . . . . .006 to .008 in.

## BATTERY

Terminal grounded . . . . . Positive  
Specific gravity charged . . . . . 1.275 to 1.300  
Specific gravity discharged . . . . . 1.150  
Capacity in ampere hours . . . . . 100 at 20 hr. discharge rate  
Voltage . . . . . 6-8  
Number of plates per cell . . . . . 15

## BRAKE—HAND

Band to drum clearance . . . . . .015 to .030 in.

## BRAKES—SERVICE

Pedal free play . . . . .  $\frac{3}{4}$  in. to 1 in.

## CAPACITIES

Engine (refill) . . . . . 5 qts.  
Fuel tank . . . . . 18 gals.  
Cooling System . . . . .  $17\frac{1}{2}$  qts.  
Transmission . . . . .  $3\frac{1}{2}$  pts.  
Rear Axle . . . . .  $3\frac{3}{4}$  pts.

## CLUTCH

Pedal free play . . . . . 1 in.

## CONNECTING ROD

Bearing clearance ..... .001 to .002 in.  
Side play at bearings ..... .006 to .011 in.

## CRANKSHAFT

Bearing clearance (desired) ..... .001 to .002 in.  
End play ..... .003 to .007 in.

## CYLINDERS

Maximum allowable taper ..... .015 in.  
Maximum allowable out of round ..... .005 in.  
Reconditioning working limits ..... .001 in.

## IGNITION

Distributor contact point gap ..... .020 in.  
Spark plug gap ..... .035 in.  
Ignition timing (Set points to open) ..... T.D.C.

## LIGHT BULBS

Location	C.P.	Mazda No.	Dodge Part No.
Headlight	45-35 (Watts)		853369
Headlight Upper Beam Indicator Light	1	51	115273
Tail and Stop Light	21-3	1154	145416
Parking Light	3	63	142303
Instrument Light	2	55	125588

## LUBRICATION, ENGINE

Normal oil pressure at 800 R.P.M. .... 40 lbs.

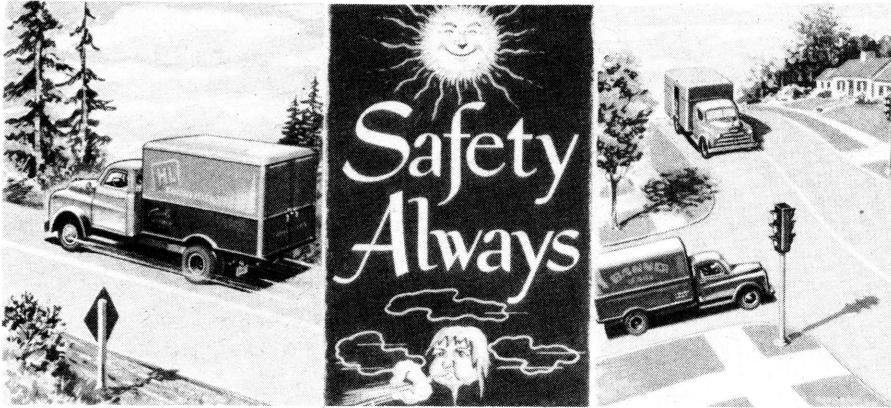
## PISTONS

Clearance (thrust side  $\frac{3}{4}$  in. from bottom  
of skirt) ..... .0002 to .0012 in.  
Piston fit for service ..... .002 in.  
feeler gauge with 5 to 7 lbs. pull





# WHEELING ALONG IN SAFETY . . . IN YOUR DODGE TRUCK



Here are some important Safety Tips you will want to practice in order to make safety work for you and the passengers in your Dodge truck. These important reminders can help make every minute you wheel along the highway a greater pleasure for you.

- **Mechanical Condition**—Keep your Dodge truck in top mechanical condition—all the time. A break-down on the road can be a hazard to traffic and to you.
- **Riding Hazards**—Never permit anyone to ride on a lowered tailgate, fender, bumper, side gate, or running board. Otherwise, the rider may become injured.
- **Grab Handles**—Never use a grab handle for a tie-down clip. Use the handle for the purpose for which it is intended. Also, avoid using the rear view mirror extension arm as a grab handle. It may not support your weight.
- **Coasting Downhill**—This is bad practice, especially if your truck is loaded. You might lose control of the truck and become involved in an avoidable accident.
- **Proper Use of Hand Brake**—Always set the hand brake, and turn the front wheels toward the curb when you park on a down grade. Be safe!

# Keep your **NEW** *Job-Rated* Truck a Genuine **DODGE** Throughout by using **MOPAR** Accessories and Parts

You'll get thoroughbred Dodge quality and performance from all accessories bearing the MOPAR label . . . because they are designed specifically for your Dodge truck.

So . . . equip your new Dodge truck with MOPAR accessories—a radio, heater, and any other items you may want to add—and keep it a genuine Dodge truck in every respect.

Remember, the trade-mark MOPAR identifies Chrysler Corporation accessories and parts—factory-engineered, factory-inspected and manufactured especially for your Dodge truck.

If replacement parts ever become necessary, it is the judgment of the engineers who designed your truck that MOPAR parts are your best assurance of full satisfaction. They'll give you "new-truck" performance . . . because they're *made right to fit right and work right!*



FACTORY ENGINEERED



FACTORY INSPECTED



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**AUTOMOBILE MANUFACTURERS ASSOCIATION  
UNIFORM WARRANTY**

"The Manufacturer warrants each new motor vehicle manufactured by it to be free from defects in material and workmanship under normal use and service, its obligation under this Warranty being limited to making good at its factory any part or parts thereof, including all equipment or trade accessories (except tires) supplied by the Motor Vehicle Manufacturer, which shall, within ninety (90) days after making delivery of such vehicle to the original purchaser or before such vehicle has been driven four thousand (4,000) miles, whichever event shall first occur, be returned to it with transportation charges prepaid, and which its examination shall disclose to its satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on its part, and it neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of its vehicles.

"This warranty shall not apply to any vehicle which shall have been repaired or altered outside of an authorized Dodge service station in any way so as, in the judgment of the manufacturer, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident."

**CHRYSLER CORPORATION**

*Dodge Division*

**Detroit 31, Michigan, U.S.A.**

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