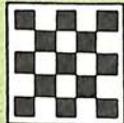


Checker Motors Corporation



SPECIFICATIONS AND TECHNICAL DATA

Overall length
Height
Width
Wheelbase
Ground clearance
Tread, front
Rear

Capacity
Fuel Tank
Crankcase
With oil filter
Automatic (Std.)
Transmission
Rear Axle
Cooling System
With Heater
Without Heater

Thermostat
Radiator Cap
Power Steering
Ignition Timing
Spark Plug Cap
Distributor Point Cap
Cam Angle Tension
Breaker Clearance
Intake
Exhaust

1994"
68 1/2"
76"
120"
6 3/4"
6 3/4"
6 3/4"

23 gal.
6 gal.
2.6 gal.
19 gal.

6 cyl. - 12 sq. in. V8 - 17 sq. in.
6 cyl. - 11 sq. in. V8 - 16 sq. in.

13 P.S.I.
Integral Type
See Page 54

019 - 020
019 - 020
1923 sq. in.

6 cyl. - 31" 34" V8 - 28" 32"
Hydraulic—No Adjustment Needed
Hydraulic—No Adjustment Needed

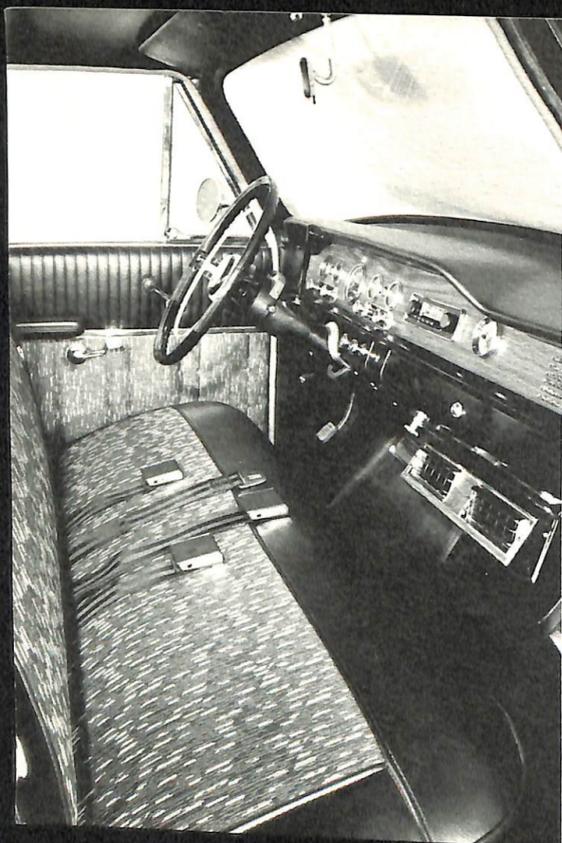
LUBRICATION CHART



SPARE

OWNERS MANUAL FOR MARATHON TAXICAB AEROBUS

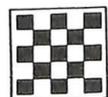
1970 SPECIFICATIONS



1970 SPECIFICATIONS

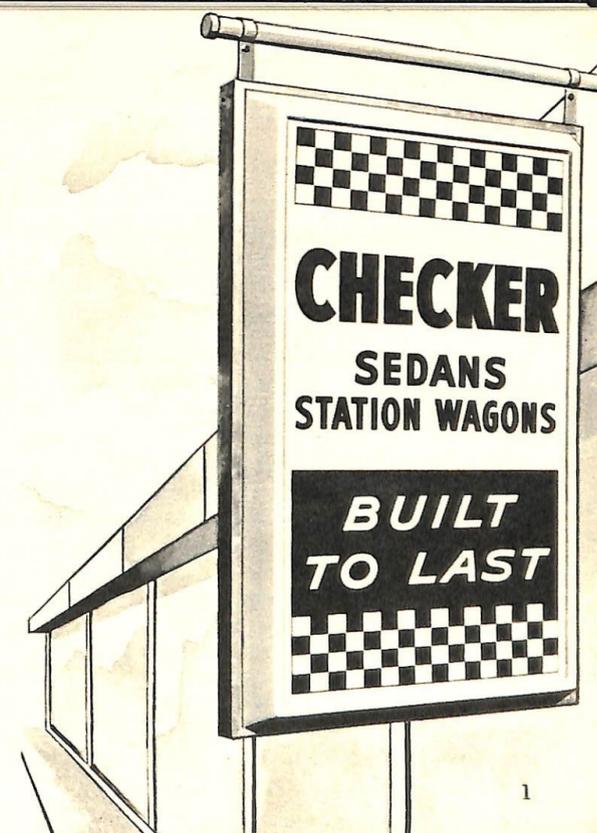
Know Your Checker

You'll enjoy driving your new car much more after you acquaint yourself with its many features and advantages. This manual gives you valuable information about the operation and maintenance of your new Checker. Spend a few minutes reading these pages . . . your time will be repaid by the greater driving satisfaction and economy that have been built into each Checker.



Know Your Checker Dealer

Your new Checker car deserves the kind of attention that only a Checker dealer can provide. You can depend on his factory approved facilities and all-around "know how" for the ultimate in maintenance and servicing. Wherever you drive — on business or for pleasure — a Checker dealer will be near to help keep your car in "top-running" condition.



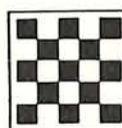
CONTENTS

Service Policy	3	Emission Control	22
Door and Locks	3	Brake Adjustment	25
Emergency Warning Light	4	Lubrication	26, 27, 28, 29
Instrument and Controls	4	Clutch	30
Window Washers	5	Guide To Minor Trouble Shooting	30
Standard Transmission	9	Electrical System	32
Dual Range Transmission	10	Air Conditioning	33
Transmission Tips	11	Radio	33
New Car Break-In	12	Power Brakes	34
Seat Belts	14	Power Steering	34
Heater and Defroster	15	Travel Trailer Towing	36
Station Wagon Features	16	Fuel Economy	35
Wheel and Tire Care	17	License Data	38
Changing a Tire	18	Specifications	38
Appearance	19	Index	40
Maintenance	20	Warranty	Inside Back Cover

SERVICE POLICY

When you accepted delivery of your Checker car, you received a Service Policy signed by your dealer. The Warranty on your Checker is a part of your Service Policy, and is printed in full on the inside back cover of your Owner's Manual. Parts replaced under the Warranty agreement are done so without charge for materials or labor by any authorized Checker dealer in the United States and Canada. Be sure that your dealer has signed your Service Policy — it will identify your car to any Checker dealer.

Your Checker comes to you as the result of nearly 50 years of technical know-how and skilled craftsmanship. It has been fully inspected and road tested at the factory to insure trouble-free performance. Any necessary adjustments were done by your dealer — so that your new car would be ready for the road.



DOORS AND LOCKS

FOR YOUR CONVENIENCE you received two sets of keys. The hex-shaped key operates the door locks, ignition switch and the tailgate on Station Wagon and Aerobus, while the glove compartment and trunk are operated by the round-headed key. As a safety precaution, we suggest that you record the identifying key number so that duplicates may be obtained from your dealer or locksmith in the event of loss.

CHECKER DOOR LOCKS have been designed for passenger safety and the security of your car and possessions. Keep the doors locked when driving and when you leave the car unattended.

To lock doors from the outside: All doors may be locked without the key by depressing the inside locking button and then holding the exterior button in while closing the door.

To lock doors from the inside: Any door may be locked from the inside by merely pushing down on the lock button.

To unlock front doors from the outside: Turn your key forward, then return to vertical position. Now push-in the button on the door handle and open door.

To unlock doors from the inside: If the door is locked, you must pull the door lock button upward before the door handle can be raised.

TRUNK LOCK. You can unlock the trunk by turning the round-headed key 1/4 turn to the right until the latch snaps open. Return the key to the vertical position for removal.

IF A LOCK FREEZES. If your trunk or door locks freeze in cold weather, heat the end of the key for a few seconds with a match or cigarette lighter—then place the key in the lock and open. It may be necessary to repeat the procedure several times. Do not force a key that will not turn, as this may result in the key breaking in the lock.

INSTRUMENTS AND CONTROLS

INSTRUMENTS AND CONTROLS for operating your new Checker are conveniently positioned so that you can see and use them with ease. As you drive, you will become familiar with their operation and location.

INSTRUMENTS, gauges and warning lights will show at a glance many important things about your car's performance. Familiarize yourself with their purpose and location. Make it a habit to scan the instruments after you start the motor and frequently while driving.

FRESH AIR VENT has its control knob at the extreme left of the dashboard. Use it to increase ventilation and to control the amount of fresh air entering your car. This knob operates the left-hand vent.

When your unit is equipped with air conditioning see page 33 for instructions on your fresh air vent.

AMMETER is the gauge farthest left of the steering column. It is an electrically-operated, direct-reading gauge that informs you if the battery is being charged by the alternator. The indicator needle may normally be in the discharge area (left of center) when the engine is in idle or low speed with electrical circuits in use. At road speeds, the indicator should remain in the charge area or just to the right of center.

HEADLIGHT AND PARKING LIGHT SWITCH is a two-position switch located at the left of the dashboard. When you

pull knob outward to the first of two positions, the switch turns on the parking lights and taillights. At the second position, the headlights and taillights are on. Both positions illuminate the instrument panel lights, which can be dimmed and turned off by turning the switch knob to the right.

BRAKE SYSTEM WARNING LIGHT located at left of head lamp switch on Marathon and Aerobus and at left of cigar lighter on Taxicab. If low pressure has developed in either the front or rear brake system, this red light will come on when the brake pedal is depressed. Have your Checker dealer locate and correct the trouble immediately. To assure you of proper operation, the Brake System Warning Light will operate each time the ignition switch is placed in the start position.

HEADLIGHT BEAM SELECTOR enables you to use two beams for varying night driving conditions. The low beams provide the necessary light on lighted roads and streets. The high beams give you better long-range visibility on dark roads. To change from one set of beams to the other, just press the beam selector, located on the left end of the floor board, with your left foot. A small red indicator light, located above the center of the speedometer, will light up whenever the high beams are being used.

EMERGENCY WARNING SWITCH is located on the right hand side of the steering column. In an emergency the switch is activated by simply pushing it in causing all four turn signals

INSTRUMENTS AND CONTROLS

to flash simultaneously. It is cancelled by pulling outward.

WINDSHIELD WIPERS are electric operated and turned on by rotating the wiper knob to the right. The first position is slow — the second position is fast.

WINDSHIELD WASHERS are operated by pressing the button within the windshield wiper control knob. Pressing it will send a measured amount of water or cleaning fluid agent onto the windshield. The wiper is then started by rotating the control knob to the right. Keep the container under the hood filled at all times. A cleaning solvent aids in the cutting of road film and grease from the windshield, and is recommended for constant use when temperature is above freezing. The solvent will not prevent the spray from freezing on the glass, so do not attempt to clean the windshield in freezing weather unless cold weather precautions have been taken.

When temperatures of freezing or below can be expected, you should use windshield washer anti-freeze and pre-warm the windshield with your defrosters before using the washers. Fill the jar only $\frac{3}{4}$ full in winter to allow for expansion if the solution should freeze. NOTE: To assure yourself of proper operation of your windshield washers, the washer jar should be cleaned and refilled at least twice annually to remove any deposits that may plug-up the system.

HEATER AND DEFROSTER CONTROLS (Marathon and Aerobus) are located just to the right of the steering column

and below the Water Temperature and Fuel gauges. Taxicab controls are located in the center of the instrument panel. Their operation is fully covered on page 15.

ANTI-THEFT IGNITION, STEERING AND TRANSMISSION LOCK. The anti-theft lock, located on the right side of the steering column, has five positions. Starting from the full counterclockwise position, they are accessory, lock, off, run and start. In "lock" position, the steering and shift mechanisms are automatically locked along with the ignition system to provide added theft protection for your car. The transmission selector lever must be in "park" on automatic transmission models or reverse on standard transmission models before the key can be turned to the "lock" position. The ignition switch "accessory" position permits operation of electrical accessories when the engine is not running. The "off" position is provided so that the ignition can be turned off without locking the steering column or transmission linkage.

To turn on the ignition system, as well as all other electrical circuits, depress the key and turn clockwise. Release the pressure on the key as soon as the engine starts. The ignition key can be inserted or withdrawn only when the switch is in "lock" position.

NOTE: Do not leave ignition switch in the RUN position when the engine is not operating as this can cause ignition point failure.

INSTRUMENTS AND CONTROLS

CIGAR LIGHTER is located to the right of the steering column. To use, merely depress the lighter knob. The lighter will stay-in until heated and automatically snap-out when it has reached the proper temperature.

TURN SIGNAL INDICATORS (Marathon and Aerobus) are two green-jewel lights positioned at either end of the dash. The proper light flashes when you have activated the turn signal lever to indicate either a left or a right-hand turn.

(*Taxicab*) Located to the right of the speedometer is a single light which flashes to indicate operation of the turn signals.

OIL PRESSURE GAUGE is located left of the speedometer, and it is a gauge that should be checked often. If the indicator drops below the normal operating pressure (30-40 lbs. at approximately 40 m.p.h.) you should investigate at once.

NOTE: Normal operating pressure depends on the temperature and the viscosity of the engine oil. The pressure will generally be high until the engine warms up.

SPEEDOMETER is the large gauge in the middle of the dash, directly above the steering column. Your car's forward speed, in miles per hour (m.p.h.), is shown on the Speedometer. The Odometer (mileage gauge), located beneath the Speedometer, records the total mileage that your Checker has been driven and is useful for keeping track of maintenance and gas mileage.

TEMPERATURE GAUGE, found at the right of the Speedometer, records the temperature of the engine coolant. Under normal operating conditions, with the engine thoroughly warmed up, the indicator needle should read approx. 195° or higher depending on the outside temperature and other driving conditions. A temperature rise above normal does not usually indicate boiling or overheating — as your Checker is equipped with a pressurized radiator system. However, any sudden changes should be investigated.

FUEL GAUGE shows you the approximate level of gasoline in the fuel tank when the ignition is on. The position of the pointer will vary slightly during acceleration, braking, and when you are going up or down a hill.

GEAR SELECTOR LEVER for both manual and automatic transmissions is positioned on the right side of the steering column.

TURN SIGNAL LEVER, located on the left side of the steering column, is operated by moving the lever in the direction of the desired turn — upward for a right turn — down to turn left. The signal lever automatically returns to a neutral position after the turn has been completed.

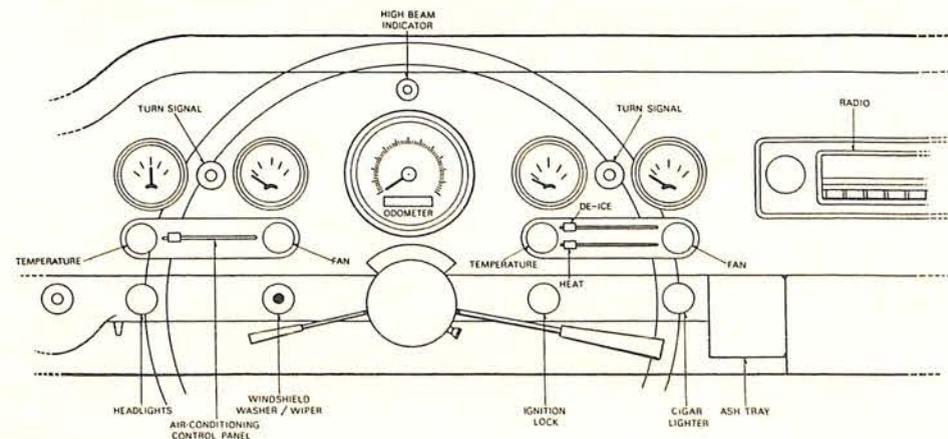
INSTRUMENTS AND CONTROLS

GLOVE COMPARTMENT (Marathon and Aerobus) is positioned at the lower center of the dashboard. It has been furnished with a lock for the protection of your valuables and may be locked or unlocked with the round-headed key that is used to operate the trunk lock. (*Taxicab*) Located at the extreme right of the dashboard.

HOOD RELEASE LEVER is located just behind the upper center opening in the grille. To operate, raise up on the lever to release the hood lock. Keep the lever in the "up" position to

release the safety catch and lift the hood. The spring-balanced hood will stay up without assistance. Do not hold the release lever while closing the hood.

MANUAL CHOKE (Aerobus only) is located on the extreme left of the dashboard below the Ammeter Gauge. To operate your choke, pull the knob straight out to the desired choke position. Gradually decrease the amount of choke as the engine warms up to improve fuel mileage and engine operation.



DUAL RANGE TRANSMISSION

Your selector quadrant has six positions in a Dual Range transmission: (P) Parking (lock and starting), (R) Reverse, (N) Neutral and starting, (D2) Limited driving range, (D1) Complete driving range, and (L) Low. Your selector lever should slide smoothly between Neutral and D1, but for safety, it must be raised slightly to engage park, reverse and the low positions.

P — Park. Use this position to safely and positively lock the rear wheels when the car is stopped. It acts as a convenience in starting your car on a grade, or avoiding "creep" on cold days. Your selector lever must be raised slightly to move in or out of the Park position. Do not move the lever to the Park position while the car is in motion.

R — Reverse. This position is used to move the car backward. Raise the lever slightly to move in or out of reverse. Then accelerate with caution.

D2 — Drive Range is especially well-suited for driving on slippery pavements. When the transmission lever is placed in D2 and acceleration starts, your Checker is in an intermediate gear (2nd). Shift into D1 (high gear) when proper speed is reached.

D1 — Drive Range is recommended for most normal driving conditions and provides you with a complete driving range with a low gear start for increased power and acceleration in fast



moving traffic or hilly country. In this range the transmission shifts-up from low through intermediate, to high when the proper speeds are reached and automatically downshifts at speeds varying with throttle movement. The lever may be moved between D2 and D1 with the car traveling at any speed.

L — Low Range is for use in deep sand, mud or snow, ascending or descending steep grades — and where traffic conditions require continuous first gear driving. When braking, while descending steep grades, the transition from Drive position to Low can be made at any car speed, if the accelerator is first released. When the lever is shifted to Low, while driving at speeds of more than 20 m.p.h., an immediate downshift to second speed will occur — with a shift to first gear following as the car speed is further reduced. You should never downshift to low on slippery pavements. Rocking the car in mud, snow and sand is best accomplished by holding a light, steady pressure on the accelerator and moving the selector lever between R and L. Never tow a car at speeds exceeding 20 m.p.h.

FORCED DOWNSHIFT. When driving in either D1 or D2, under approximately 50 m.p.h., additional acceleration can be obtained by fully depressing the gas pedal. Releasing it will automatically shift the transmission back into high gear.

TRANSMISSION TIPS

As your engine "breaks-in" and friction decreases, the idle speed tends to increase. At higher idle speeds, your car may tend to "creep" due to the increased power transmitted by the torque converter. It may then be necessary to have the idle speed re-adjusted.

It is possible to hold the car stationary, for limited periods only, on slight upgrades by lightly depressing the accelerator with the selector lever in the forward driving range — but this practice is not recommended for extended periods.

TOWING. If it is necessary to have your car towed, the rear wheels should be lifted off the ground or the driveshaft disconnected. When towing a vehicle on its front wheels, the steering wheel should be secured to maintain a straightforward position. Rocking the car in mud, snow and sand is best accomplished by holding a light, steady pressure on the accelerator and moving the selector lever between R and L. Never tow a car at speeds exceeding 20 m.p.h.

AUTOMATIC TRANSMISSION DRIVING CAUTIONS

1. Do not accelerate in L, D or R with the brakes engaged — as this can cause damage to the transmission.
2. Do not use Low except for hard pulls at low speeds or for downhill braking at speeds of less than 40 m.p.h.

3. Do not shift into Reverse without first coming to a complete stop.
4. Always engage the parking brake when parking your car.

GETTING UNDERWAY

Always fasten your seat belts and adjust both the inside and outside rearview mirrors before starting.

1. To start car with automatic transmission, place the selector lever in the "P" or "N" position. The engine will not start in other positions. To start a manual transmission, place the shift lever in neutral and depress the clutch pedal to the floor.
2. Turn the ignition key all the way to the right and then release as soon as the engine starts.

STARTING A COLD ENGINE

1. Depress the accelerator pedal down all the way to set the automatic choke.
2. Release the pedal about half way (do not repeat this process, as pumping the accelerator will only cause your carburetor to flood).
3. Turn the ignition key to the right and hold only until the engine starts — then release the key.

GETTING UNDERWAY (ALWAYS FASTEN YOUR SEAT BELTS AND ADJUST BOTH INSIDE AND OUTSIDE REARVIEW MIRRORS)

WITH THE ENGINE ALREADY WARM

1. Press the accelerator about half way down and hold it there.
2. Turn the key to operate the starter. If the engine does not start, hold the accelerator to the floor and operate your starter. As soon as the engine starts, release the accelerator and the key.

STARTING A FLOODED ENGINE. If your engine becomes flooded, hold the accelerator all the way to the floor while turn-

ing the key. Pumping the accelerator will only cause more gasoline to flood the engine.

WARM-UP. Let the engine idle for a short time after starting and then drive at moderate speeds for several miles, especially during cold weather.

CAUTION. Never start or run your engine in a closed garage. Carbon monoxide gas, produced by the engine of every car, is poisonous and odorless. You cannot detect its presence.

NEW CAR BREAK-IN

NEW CAR BREAK-IN. How you drive your car during its initial mileage will have an important effect on its future operation. It is advisable to drive at a moderate speed for 10 to 15 minutes after starting, to allow time for the engine, transmission and rear axle to warm-up to normal operating temperature. The engine requires progressive break-in at various speeds before it is advisable to run it continuously at all speeds.

You can get your Checker off to a good start by observing a few simple operating rules during the first few hundred miles you

drive the car.

1. First 500 miles: Do not exceed 60 m.p.h. Vary the driving speeds below this figure during the period to allow the moving parts of your engine to polish and "bed-down." Sustained slow speeds can be just as harmful during the break-in period as sustained high speeds.
2. Change the engine oil when you reach 1,000 miles. Break-in oil should be drained and replaced with the proper viscosity oil recommended on the lube chart on pages 27 and 29.

TIPS FOR DRIVING ON SAND, SNOW, OR ICE

If you should have to drive your Checker through loose sand or deep snow, shift the transmission to second gear, in manual transmission, (L position with automatic transmission) to keep moving at a steady pace. Avoid spinning the wheels — this will only cause them to dig deeper into the sand or snow. It is advisable to keep snow tires and chains at your disposal for when traction is extremely poor.

Should your rear wheels get stuck, keep a light, steady pressure on the accelerator. Do not race the engine. Shift back and forth between first and reverse gears (R and L with automatic transmission). Time the shift between gears to take advantage of the rocking motion of your car. If you are still stuck after rocking the car, have it pulled out to prevent overheating and possible damage to the transmission.

To move your car on smooth ice, shift to second or third gear (D2 with automatic transmission) and accelerate slowly to avoid

spinning the wheels and skidding. All driving maneuvers made on ice should be slower than usual in order to maintain control. To stop, pump your brake pedal lightly to avoid sliding. If your car should skid, turn the steering wheel (not sharply) in the direction that the rear end is skidding — then slowly accelerate to straighten out.

REFUELING. Your Checker is designed to operate efficiently under all driving conditions on good grades of regular or premium fuel. To determine the fuel suitable for your Checker see page 38 "Specifications and Technical Data." It is important that proper fuels be used, as use of an improper grade of gasoline could result in the voiding of your warranty.

If you plan to travel outside of the United States or Canada, check with a travel agent or your local auto club to find locations where suitable fuels for your Checker are available.

LIGHTS

LIGHTS. A single switch operates most of your car's lights. The headlights, parking lights, instrument panel, license and taillights all work from the same pull-switch on your dashboard. The high headlight beam and turn signal lights are covered on pages 4 and 6.

Back-up Lights turn on automatically when the ignition is on and when the transmission is in reverse. They illuminate the rear area, behind your car and warn drivers and pedestrians that you are operating in reverse.

EQUIPMENT

ASH TRAYS. Your Checker sedan has two ash trays on either side of the glove compartment and two in the passenger compartment. The wagon has one ash tray in the rear located on the back of the front seat. To remove both front ash trays, merely press down on the snuffer plate and pull out. Lift out rear ash trays.

ELECTRIC CLOCKS (Optional) (Not available on Taxicabs) features a special mechanism for automatically regulating itself when it is reset.

REAR VIEW MIRROR. The center location of the rear view mirror allows you to see traffic conditions behind, with only a slight eye movement necessary. Get in the habit of glancing in your rear view mirror as you drive.

SUN VISORS control the sun's glare through the windshield and windows by tilting in both a downward and outward direction.

SEAT ADJUSTMENT is accomplished by moving the control knob (located under the left side of the front seat) to the right and sliding the seat forward or backward to the desired position. NOTE: Adjust the seat only when the car is at a standstill.

SEAT BELTS provide maximum safety and comfort for you and your passengers. Your Checker is provided with six (6) sets of seat belts. Two sets in the front are the shoulder harness type. The balance, including the three sets in the rear, are lap belts. Seat belts are provided for your safety . . . so please use them at all times.

Fastening the seat belt . . .

To fasten the safety belt properly, grasp the buckle and catch sections and place them around your waist. Force the catch into the open end of the buckle until an audible snap is heard. Adjust the belt firmly around the waist by pulling the end of the belt protruding from the buckle.

Releasing the belt . . .

You need only pull on the buckle lever to release the belt.

Care of seat belts . . .

Keep belts clean and dry, wash occasionally with a mild soap solution in lukewarm water. Keep the belts away from sharp edges and damaging objects — and inspect the belts periodically for cuts and damage that might lessen their effectiveness. Do not bleach or dye the belts, as this can weaken the fabric.

HEATER AND DEFROSTER

Your Checker's heater-defroster unit is a fresh-air type unit that provides effective year-round control of temperature. Both heating and defrosting in the Marathon and Taxicab are accomplished with a single blower. The amount of air and the direction of its flow are controlled by the sliding levers on the heater-defroster combination.

(Marathon and Aerobus) For maximum heating: Set the top lever at Heat, the lower lever at On and pull the Temp. knob full out — then turn the heater's fan switch in a clockwise direction for the desired fan speed.

For fast defrosting or to remove very heavy frost: Set the top lever at De-ice, the lower lever at On and pull the Temp. knob full out — turn the Fan to its "high" speed.

For normal winter driving: Keep the top lever at Heat, the lower lever at On. The Temp. knob may be positioned between "Full In" and "Full Out" to attain the desired temperature. The Fan may be turned on at any time to speed the circulation of warm air.

TAXICAB

For maximum heating: Set the bottom lever marked "DEF" at HEAT, the center lever marked "AIR" at ON and the top lever marked "TEMP" at ON — then turn the heater's fan switch in a clockwise direction for the desired fan speed. For fast defrosting or to remove very heavy frost: Set the bottom lever at DEFROST, the center lever at ON and the top lever at ON — then turn fan control knob to ON.

For normal winter driving: Keep the bottom lever at HEAT and the center lever at ON. The top lever may then be positioned anywhere between OFF and ON to attain the desired temperature. The fan may be turned on at any time to speed circulation of air.

UNDERSEAT HEATER. The Aerobus is equipped with two auxiliary underseat heaters. This item is optional on Marathons and Taxicabs. The control switch is a chrome plated knob located directly below the windshield wiper switch on the lower side of the dashboard. It is a push-pull switch with two (2) stops. The first is LOW fan speed and the second is HIGH.



STATION WAGON FEATURES

Your Checker station wagon has been designed with exceptional features to increase your driving pleasure.

The rear of the second seat's backrest becomes a flush part of the cargo floor when folded down. This may be accomplished with a single movement.

The **SPARE TIRE** compartment is located beneath the rear of the cargo floor. It is covered by a hinged door that can be held open, for easy access, by an attached folding support.

TAILGATE WINDOW OPERATION.

1. First swing out the window regulator handle.
2. Then move the window regulator selector lever to the Open position (if the selector lever is in the Lock position, you must first use your key to unlock it).
3. Wind the window to the full Down position.
4. Now move the window regulator selector lever to the Fold position and snap the handle closed.
5. Pull the control handle (inside gate) upward and open the tailgate.

To close the window, simply reverse the procedure. If it is desirable to leave the tailgate window unlocked, the window regulator selector lever must be left in the Fold position before

closing the handle. As a safety precaution, the tailgate cannot be opened until the retractable rear window has been lowered. To raise or lower the power assisted tailgate window, activate the toggle switch on the lower edge of the dash — or insert the key in the tailgate window regulator. Turn right to lower and left to raise.



LOCKED VIEW



OPEN VIEW

WHEEL AND TIRE CARE

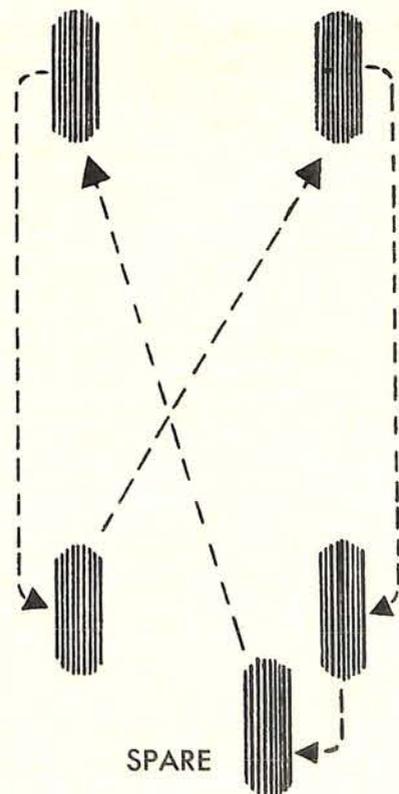
FOR MAXIMUM TIRE LIFE — WE SUGGEST THAT YOU ...

1. Check air pressure regularly.
2. Rotate the tires at regular intervals.
3. Avoid fast "get-aways" and prolonged periods of high-speed driving.
4. Decrease your speed when rounding corners and making sharp turns.
5. Avoid hard, unnecessary braking.
6. Avoid chuckholes and sharp objects in the road.

TIRE PRESSURE. A build-up in tire pressure while driving is quite normal. Putting less air in your tires causes under-inflation when tires cool and induces abnormal tire wear.

Rotating all wheels, including the spare tire, every 5,000 miles will greatly prolong the life of your tires. (See diagram for correct rotation.)

Heavy spots on wheels or tires cause bounce and wobble that increase wear and decrease tire life. It is recommended that all tires be balanced. Occasionally out-of-round tires are discovered to be the source of vibrations — this can be corrected by tire truing.



WHEEL AND TIRE CARE

Wheels that are out-of-line will also cause abnormal tire wear, roughness, vibration and pulling to one side or the other. For normal driving, have your wheel alignment checked every 20,000 miles. Correct settings are:

Caster	2° to 2½° Positive
Camber	½° to 1½° Positive
Toe-in	1/16" to 1/8"

NOTE: All tire warranties and adjustments are handled by the tire manufacturer.

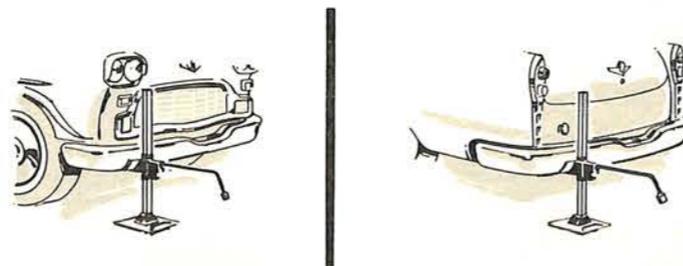
REAR WHEEL BEARINGS are factory-packed with a lubricant designed to last 20,000 miles. When you have reached this mileage, the bearings must be thoroughly cleaned and inspected before repacking. A lithium-base or sodium-base grease may be used — but it is inadvisable to mix the two bases when repacking the bearings. (See page 26)

FRONT WHEEL BEARINGS are factory-packed with a lubricant designed to last 10,000 (front) miles. When you have reached this mileage, the bearings must be thoroughly cleaned and inspected before repacking. A lithium-base or sodium-base grease may be used — but never mix the two.

SPARE WHEEL AND JACK STOWAGE. The spare wheel and tire, jack and jack handle are stored in the trunk compartment.

CHANGING A TIRE

CHANGING A TIRE. Before the car is jacked up, apply the parking brakes and, as an added precaution against the car moving, place a large stone or block under the front and rear of one wheel. After you have loosened the wheel nuts, place the jack under the front or rear bumper near the bumper bracket, as shown in the illustration. Then jack up the car and change the wheel. Tighten the wheel nuts on the replacement wheel and lower the car slowly to the ground. Check all the wheel nuts again to be sure that they are tight. We suggest that you have the damaged tire repaired immediately so that you do not drive for an extended period of time without a spare tire.



FRONT VIEW

REAR VIEW

APPEARANCE

The exterior of your Checker is finished for maximum durability and beauty. It is not necessary to wax or polish it for at least 60 days. When polishing your car, remember that the fastest or easiest products to use are not always the best. Maintain your Checker's fine finish with frequent washings with water and small amount of mild detergent followed by a thorough rinsing. Dry to a high polish with a clean, damp chamois. (Never use hot water and do not wash the car in the hot sun.)

BRIGHT METAL TRIM. The metal trim on your Checker should be washed and cleaned frequently, especially during the winter, to avoid erosion by materials used to clear roads. To prolong the appearance of chromed parts, wash and clean frequently and apply a protective coating of paste wax on all bright metal finishes.

INTERIOR. Your Checker's interior should be cleaned periodically to keep it in good condition. Most loose dirt and dust can be removed with a whisk broom. When washing is necessary, wash the fabric and vinyl coverings with a good frothy suds of neutral soap and warm water using a clean cloth or sponge. Wipe the surface several times with a clean, dry cloth and let air circulate freely over the wet upholstery.

STAINS. Here are some common stains and the best way to cope with them.

1. **Dirt and Mud.** Allow the stains to dry. Pick off the dried mud and clean with a vacuum cleaner. Go over the area lightly with cleaning fluid if the stains persist.
2. **Grease and Oil.** Sprinkle the area liberally with absorbent powder — then remove with a vacuum cleaner. Use cleaning fluid and absorbent cloths, while working from the outside toward the center. Soak up extremely fresh grease with cloths.
3. **Tar.** Pick off as much tar as possible with a dull knife — then rub the area with cleaning fluid and absorbent cloths. Repeat if necessary.
4. **Chewing Gum.** Cleaning fluid or absorbent rug cleaning powder should loosen the gum.
5. **Candy, Chocolate or Cocoa.** Pick off the crusted, dried particles with a dull knife and sponge from outside the spot toward the center, using clear, lukewarm water. Soak dry with rags — then sponge again with detergent suds and dry.

WHITEWALL CARE can usually be accomplished satisfactorily with a cloth dipped in water, with a mild soap added. Clean very dirty or scuffed tires with a good whitewall cleaner, following the directions on the container. Rinse the tires and wheels with clean cold water. Do not use strong caustics, as they may stain the bright metal wheel covers.

INTERNAL MAINTENANCE

BATTERY CARE. Check the water level in each battery cell at least every 1,000 miles and more frequently during the hot summer months. If water is needed, add distilled water only and be careful not to overfill. The terminals should be cleaned with a baking soda and water solution and coated with a lubricant to prevent corrosion. If removal of the battery is necessary, be sure to first disconnect the ground terminal.

CAUTION: Keep lighted cigarettes and flame away from the open battery cells, as combustible hydrogen gas is always present.

NOTE: All battery warranties and adjustments are handled by the battery manufacturer.

COOLING SYSTEM CARE. The coolant in your Checker operates under pressure, due to the radiator cap which has a spring pressure of about 13 lbs. Under pressure, the coolant's boiling point is raised above normal. As long as the heat indicator stays within the operating range, the system is functioning properly and the cap should be left alone. In spring and fall, when it is necessary to drain the system, first remove the pressure cap. Then open the drain valves at the bottom of the radiator and on the side of the engine block. It is recommended that high grade, permanent year-round anti-freeze be used. In the spring, drain and discard the old anti-freeze and install fresh anti-freeze in the fall. A rust preventive and lubricant should be used in the cool-

ing system to prevent corrosion and protect the water pump bearings. **NOTE:** To remove the radiator pressure cap, turn slowly to the left. Stop if a hissing noise is heard and allow the pressure to subside before completely removing the cap. A 195° thermostat was installed for the best heater and engine performance. Be sure that the cooling system has been thoroughly cleaned and inspected before fresh anti-freeze is added.

ENGINE OIL RECOMMENDATIONS AND REQUIREMENTS. Do not change the "break-in" oil in your Checker until you have driven 1000 miles. After this distance, the engine oil should be changed at intervals of 2,000 miles under average driving conditions. When operating in dusty areas or for short trips with outside temperatures at freezing or below, it is recommended that the oil be changed more often.

Recommended Engine Oil Types for Various Conditions

Temperatures Expected	S.A.E. Number Recommended	Acceptable Multigrade
32° to 110° F	20 W, 20	10 W - 30
0° to 32° F	10 W	10 W - 30
Below 0° F	5 W	5 W - 20

NOTE: Oils used should be marked: "Meets or exceeds all car manufacturers recommendations for MS (maximum severity) service."

INTERNAL MAINTENANCE

A WORD ABOUT VEHICLE EMISSIONS

All new Checkers are certified as to conforming to the requirements of the regulations for the Control of Air Pollution for New Motor Vehicles and New Motor Vehicle Engines specified by the United States Department of Health, Education and Welfare.

Checker vehicles are equipped with control systems which are highly effective in reducing undesirable crankcase and exhaust emissions. It is very important that the owner make certain that the engine is serviced regularly in order to maintain its efficiency and to keep emissions below maximum allowable limits.

The emission control systems on your new Checker are relatively easy to maintain, requiring only specific services as recommended by Checker. To function properly, these systems must be inspected periodically and engine tune-ups performed at specified intervals by qualified repairmen. For ready reference, pertinent information regarding ignition timing and idle speed and fuel mixture specifications is shown on a sticker affixed under the hood of your vehicle. Following the prescribed maintenance services will help assure cleaner air and will provide better running, longer lasting engines for greater all-around satisfaction, economy and performance.

POSITIVE CRANKCASE VENTILATION (P.C.V.)

The Positive Crankcase Ventilation system, which is standard equipment on your vehicle, prevents emission of gases from the crankcase. The P.C.V. system connects the crankcase and intake manifold of the engine. Crankcase gases are returned through this system to the combustion chamber where they are burned. Periodic inspection and required servicing of your P.C.V. system assures a cleaner, better-performing, longer-lasting engine. A plugged P.C.V. system results in a loss of crankcase ventilation which can cause condensation of gases in the crankcase, resulting in the formation of acids, sludge build-up and oil dilution. This also results in an increase in exhaust emissions due to carburetor enrichment. Every 12 months or 12,000 miles, whichever occurs first, the P.C.V. valve should be replaced. Also, all hoses, fittings and the inlet air filter should be inspected, cleaned and replaced if necessary.

NOTE: If the positive crankcase ventilator valve should become clogged, the engine idle will be adversely affected. Therefore, if the engine idle becomes too slow or rough, the ventilator valve should be checked before any carburetor adjustments are made to compensate for the trouble.

INTERNAL MAINTENANCE

AIR INJECTION REACTOR (A.I.R.) (Aero. Std. Trans.)

The A.I.R. system, installed with standard transmission, is designed to diminish, by oxidation, the hydrocarbon and carbon monoxide (CO) content of the exhaust. The components making up this system, which is not connected with the PCV system, are an air pump, specifically calibrated carburetor, distributor, manifolds, valves, hoses and nozzles. The engine-driven pump moves filtered air to the nozzles inside the exhaust ports, near the valves, where the oxidation of the above pollutants takes place. This, however, does not remove the danger of carbon monoxide poisoning when the engine is operated without adequate ventilation.

The Air Injection Reactor system should have the A.I.R. pump filter serviced and the drive belt inspected for wear and tension every 12 months or 12,000 miles, whichever occurs first. In addition, complete effectiveness of the system, as well as full power and performance, depends upon idle speed, ignition timing and idle fuel mixture being set according to specification. A quality tune-up which includes these adjustments should be performed periodically to assure normal engine efficiency, operation and performance.

CONTROLLED COMBUSTION SYSTEM (C.C.S.) (Automatic Transmission — All Models)

The Controlled Combustion System is designed to reduce air

pollution from exhaust emissions by improving combustion efficiency on Checkers equipped with automatic transmission. It is entirely separate from the Positive Crankcase Ventilating system. This is done by providing heated air to the carburetor which permits running on leaner mixtures for improved combustion. Other engine modifications consist of a special calibrated carburetor and distributor and related components. Complete effectiveness of the system, as well as full power and performance, depends upon idle speed, ignition timing and idle fuel mixture being set according to specification. A quality tune-up which includes these adjustments should be performed periodically to assure normal engine efficiency, operation and performance.

ENGINE DIPSTICK. Your engine's dipstick is located at the engine's left side on V8's and the right side on 6 cylinders. Check the oil level at each refueling to make sure that the level is in the recommended area. The level is satisfactory if, while the engine is hot, it falls anywhere between the marks FULL and ADD OIL. It is not necessary to keep the level at the FULL mark. *Do not overfill.*

OIL FILTER. The oil filter has a throw-away filter unit that can be removed by hand. Turn the replacement unit until the gasket contacts the seal — tighten another full turn. The filter should

INTERNAL MAINTENANCE

be changed at the initial drain period, and at every 4,000 mile interval after that. An extra quart of oil will be required for the filter.

STANDARD TRANSMISSION requires a good grade of multi-purpose or all purpose gear oil. We suggest S.A.E. #90 for year around use and #80 for extremely cold climates.

AUTOMATIC TRANSMISSION uses only fluids identified by "AQ-ATF," Armour Qualification — Automatic Transmission Fluid Type A. Check the fluid level each 2,000 miles, using the following procedure: apply the parking brake and place the transmission in Neutral. At idle speed, move the selector lever through all the positions to distribute the fluid. Return to D2 with the engine still running at idle speed.

Clean all the dirt from the dipstick-filler cap located at the extreme right rear engine compartment. Remove the dipstick and wipe it clean before checking the fluid level. If necessary, add fluid to raise the level to the "full" mark on the dipstick. The area between the first two marks on the dipstick represents one pint. Do not overfill. It is suggested that you change the transmission fluid and adjust the bands at 20,000 mile intervals.

AIR CLEANER SERVICE. Black smoke or sluggish acceleration will warn you that the air filter element needs cleaning or replacing. Inspect and service the element every 2,000 miles.

CHASSIS LUBRICATION. The chassis should be lubricated at 2,000 mile intervals, as shown on the chart on page 26. If your car is operated in dusty, wet, slushy or muddy conditions, you should lubricate the running gear more often. Lubricate immediately under the above conditions to flush out water and foreign matter.

SPARK PLUGS. The spark plugs should be cleaned and the gaps adjusted every 5,000 miles for maximum engine performance, gas mileage and easy starting. The electrodes should be filed square and the gap adjusted to .035". Install plugs with 25 ft. lbs. torque. To maintain peak efficiency, install new plugs every 10,000 miles.

IGNITION TIMING should be set with a timing light (strobe), the engine running at idle, the vacuum advance disconnected and plugged. Loosen the distributor clamp screw, connect the timing light low tension lead to the car battery, and high tension cable to number one spark plug. Clean and chalk the timing marks on crankshaft pulley and the pointer. While running the engine at idle, direct the light at the chalked marks and rotate the distributor to the following:

MAINTENANCE

250 cu. in. 6 cyl. Auto. Trans.	4° BTDC @ 600 rpm in drive position
350 cu. in. V/8 Reg. Fuel Auto. Trans.	4° BTDC @ 600 rpm in drive position
350 cu. in. V/8 Reg. Fuel Standard Trans.	4° BTDC @ 500 rpm

Tighten the clamping screws on the distributor and connect the vacuum regulator.

NOTE: On cars with E.E.C. equipment (California), disconnect the fuel tank line from the Vapor Canister. Reconnect after tune-up.

DISTRIBUTOR. The distributor should be checked and serviced every 10,000 miles. Keep the breaker-points clean, set to the correct gap and parallel to each other. To clean the points, remove the distributor cover and turn the crankshaft until the points close. Lift off the rotor, remove the terminal nut to release contact breaker spring and lift the nylon rocker off the pivot post. Remove the screws from the fixed contact plate and lift out. Grayish-colored points (only slightly pitted) within .002 of correct gap setting need not be replaced or adjusted. If pitted or purple, the points may be dressed flat on a carborundum stone to eliminate pitting. If burned or badly pitted, the condenser is probably bad and both the condenser and the points should be replaced.

If the points were merely dressed, clean off all traces of stone dust and refit the contact plate securely with screws. Refit the rocker, apply a drop of oil to the pivot post and secure the breaker spring with the terminal lock. Make sure that the point gauge is clean and the points aligned, making contact near the center. Turn the crankshaft until the rocker is on the peak of the cam lobe. Loosen the contact plate securing screws and move the plate about the axis until the gauge (.019) has a good sliding fit between the points. Tighten the securing screws and recheck the setting. Adjust the stationary contact without bending the breaker arm. Use a light film of cam grease on the lobes — then replace rotor and cover. Add a few drops of medium weight engine oil to the outside of the base.

ADJUST FAN BELT by loosening the alternator adjusting arm lockbolt and the lower support bolt. Pry the alternator outward. When the correct belt tension is obtained, tighten the lower support bolt and the adjusting arm lockbolt and re-check the tension. The belt is tensioned correctly if it can be deflected inward, by hand, approximately $\frac{3}{8}$ to $\frac{1}{2}$ in. between the fan pulley and the alternator. Keep the belt tension within given limits, as too tight a belt will put undue strain on driven units. If too loose, inefficient alternator and overheating will result. After preliminary run-in, the belt tension should be 75 lbs., minimum.

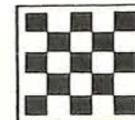
MAINTENANCE

CARBURETOR CARE is vital to gas mileage. If your Checker idles and accelerates properly, carburetor adjustment is not needed. Mileage is affected by the idle system which supplies gas at speeds up to 25 m.p.h. An over-rich mixture causes gasoline waste and poor mileage. To correct an over-rich idle mixture, seek the leanest possible idle mixture (after break-in) by turning the idle needle in until the engine gets slightly rough — then back-off just enough to get a smooth-running engine.

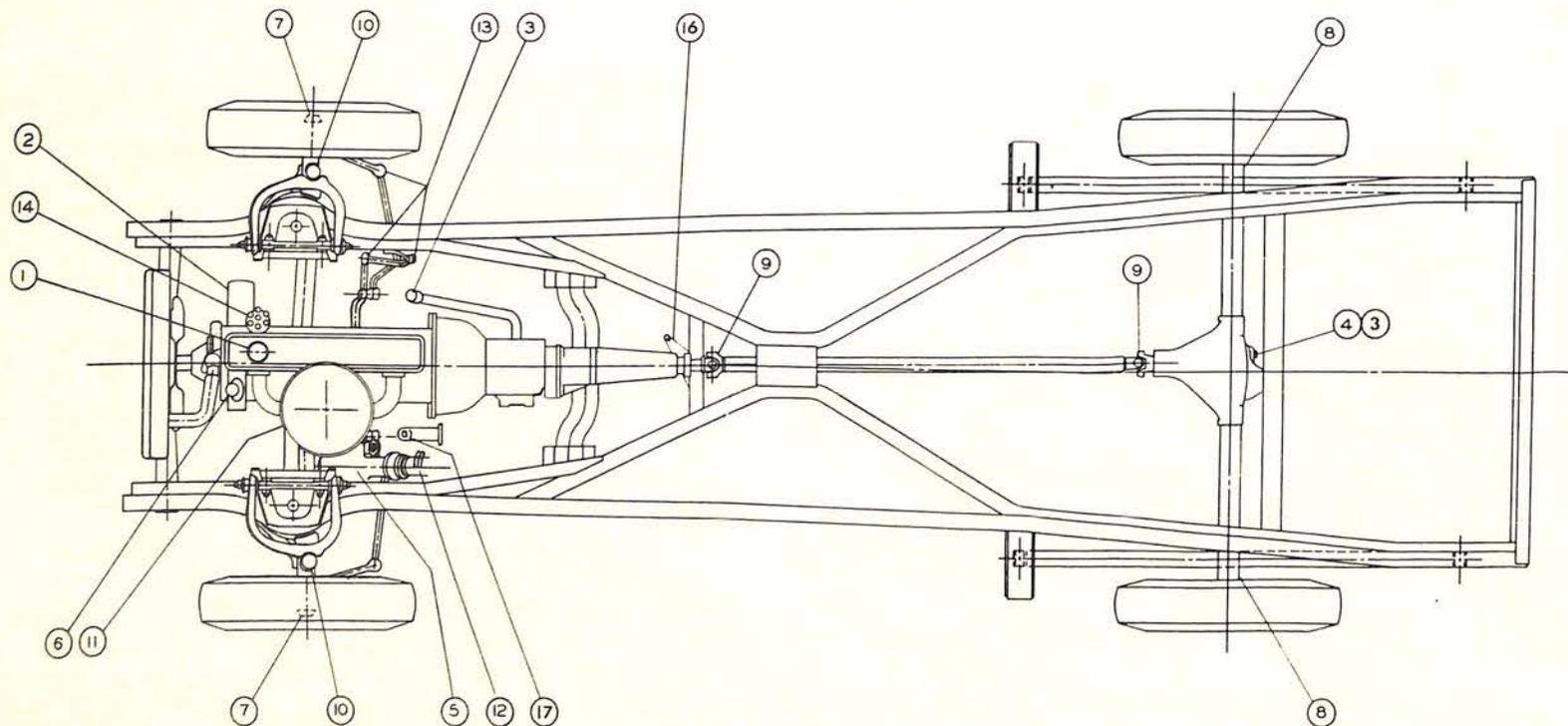
BODY DRAIN HOLES eliminate water accumulation in doors and prevent rusting of the bottom panels. Clear and clean drain holes in each door once a month. These half-moon shaped holes are at the bottom of the door where the outer panel joins the door frame. Clear them with a screwdriver after the car is washed or when you have driven in rainy weather. You should also clear the holes in the sill, rocker panels and spare tire well.

BRAKE ADJUSTMENT to compensate for normal lining wear is done automatically by self-adjusters located in each wheel and are actuated when the brakes are applied with the vehicle moving in the reverse direction. This self-adjusting feature operates uniformly throughout the entire life of the brake linings, making it advisable to visually determine lining thickness periodically to avoid the possibility of scored brake drums.

To adjust parking brake cable depress the parking brake pedal about $\frac{1}{2}$ in. and remove all the slack from the cable at the clevis (located near the center of the Aerobus, between the frame X-member). Apply the parking brake after the cable adjustment, then release to make sure that sufficient slack remains in the cable so that the brake will not drag. Free brake pedal play should not exceed $\frac{1}{4}$ in. Adjust by loosening the locknut on the eccentric bolt to obtain proper play. Tighten the locknut. Check the fluid level in the master cylinder every 2,000 miles.



LUBRICATION CHART

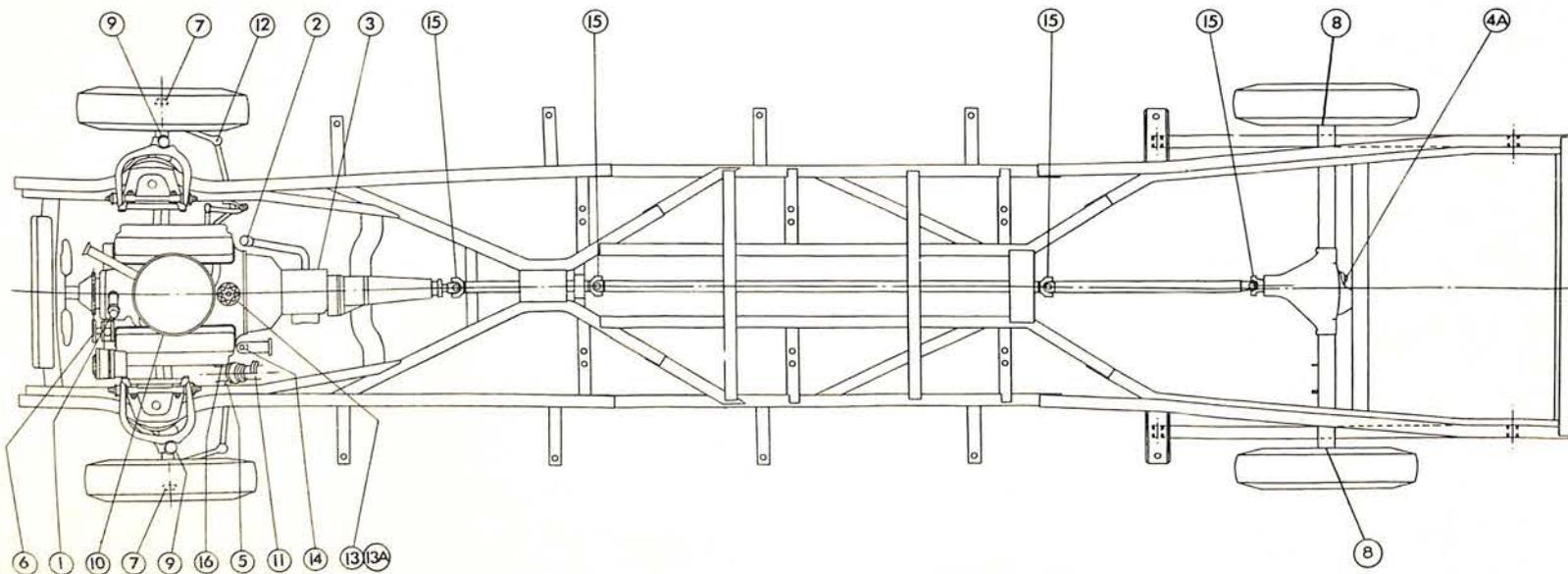


MARATHON TAXICAB

LUBRICATION CHART — Marathon, Taxicab

No.	Unit	No. of Places	Lubricant	Capacity	Check Periods	Remarks
1	Engine	1	MS 10 W 30 Oil	5 Qts. w/Filter	Daily	Drain and Refill Every 2,000 Miles
2	Oil Filter	1	.....	1 Qt.	.....	Replace Every 4,000 Miles
3	Differential — Standard	1	E. P. Hypoid Gear Lube S.A.E. 90	3 Lbs.		Change Every 15,000 Miles
4	Differential — Powr-Lok	1	Lubricant of API-GI-4 Type Incorporating Additives Suitable for Power-Loc Differential	3 Lbs.	At 2,000 Miles	Change Every 15,000 Miles
5	Steering Gear — Standard	1	E. P. Hypoid Gear Lube S.A.E. 90	12 Oz.	At 2,000 Miles	Plug in Housing Cover
6	Power Steering Pump	1	Type A — Suffix A — Transmission Fluid	2 Qts.	At 2,000 Miles	Drain and Refill Every 15,000 Miles
7	Wheel Bearing — Front	2	Marfak — 2HD	¼ Lb. Each	At 10,000 Miles	Remove Wheel, Clean, and Repack
8	Wheel Bearing — Rear	2	Rust Inhibited Lithium Base All Purpose Gr.	As Required	At 20,000 Miles	When Brakes are relined or as required
9	Universal	2	Rust Inhibited Lithium Base All Purpose Gr.	As Required	At 2,000 Miles	Pressure Fitting
10	Steering Knuckle Ball Joint	4	Rust Inhibited Lithium Base All Purpose Gr.	As Required	At 2,000 Miles	Relieve Load, Swing Wheels, While Lubricating
11	Air Cleaner — Thermac	1	Dry Type		At 2,000 Miles	Replace Every 10,000 Miles
12	Gear Shifter	1	Lubriplate — 630 AA	As Required	At 2,000 Miles	Apply to Shifter Tabs on Steering Column
13	Steering Linkage	5	Rust Inhibited Lithium Base All Purpose Gr.	As Required	At 2,000 Miles	Pressure Fitting
14	Distributor	1	Turn Felt Cam ½ Turn	.....	At 10,000 Miles	Replace With New at 20,000 Miles
15	Parking Brake Lever	1	Rust Inhibited Lithium Base All Purpose Gr.	As Required	At 2,000 Miles	Spread on Slide Plates
16	Transmission — Automatic	1	Type A — Suffix A — Transmission Fluid	9½ Qts.	At 2,000 Miles	Drain and Refill Every 20,000 Miles
17	Master Cylinder Brake	1	Brake Fluid S.A.E. 70R3 Specification	Keep Filled	At 2,000 Miles	Under Hood
	Misc., Hinges, Linkage and Pins		Machine Oil	Few Drops	At 2,000 Miles	With Oil Can

LUBRICATION CHART AEROBUS



LUBRICATION CHART AEROBUS

No.	Unit	No. Places	Lubricant	Capacity	Check Periods	Remarks
1	Engine	1	MS 10 W 30 Oil	5 Qts. w/Filter	Daily	Drain and Refill Every 2,000 Miles
2	Transmission—Automatic	1	Type A—Suffix A—Transmission Fluid	9½ Qts.	At 2,000 Miles	Drain and Refill Every 20,000 Miles
3	Transmission—Standard	1	Mineral Base Gear Oil S.A.E. #90	Keep Filled	At 2,000 Miles	Change Every 14,000 Miles
4	Differential—Standard	1	E.P. Hypoid Gear Lube S.A.E. #90	Keep Filled	At 2,000 Miles	Change Every 14,000 Miles
4A	Differential—Power Lok	1	Lubricant of API-GL-4 Type Incorporating Additives Suitable for Power-Lok Differential	Keep Filled	At 2,000 Miles	Change Every 14,000 Miles
5	Steering Gear	.....	.....	.....	.....	Note: Lubricated thru No. 6
6	Power Steering Pump	1	Type A—Suffix A—Transmission Fluid	2 Qts.	At 2,000 Miles	Drain and Refill Every 14,000 Miles
7	Wheel Bearing—Front	2	Rust Inhibited Lithium Base All Purpose Grease	⅓ Lb. Each	At 10,000 Miles	Remove Wheel, Clean and Repack
8	Wheel Bearing—Rear	2	Marfak 2HD	As Required	At 20,000 Miles	Repack When Brake Linings Are Replaced
9	Steering Knuckle Ball Joint	4	Rust Inhibited Lithium Base All Purpose Grease	As Required	At 2,000 Miles	Relieve Load, Swing Wheels, While Lubricating
10	Air Cleaner—Dry Type	1	Caution: Keep Oil from Element	None	At 4,000 Miles	Remove: Clean Cartridge by Tapping Gently
11	Gear Shifter	1	Lubriplate 630AA	As Required	At 2,000 Miles	Apply to Shifter Tabs on Steering Column
12	Steering Linkage	5	Rust Inhibited Lithium Base All Purpose Grease	As Required	At 2,000 Miles	Pressure Fitting
13	Distributor	1	Engine Oil	Few Drops	At 2,000 Miles	Oil Cup on Side—With Oil Can
13A	Distributor Rotor-Felt	1	Turn Felt Cam ½ Turn	.....	At 12,000 Miles	Replace with New at 24,000 Miles
14	Master Cylinder Brake	1	Brake Fluid S.A.E. 70R3 Specification	Keep Filled	At 2,000 Miles	Under Hood
15	Universal	4	Rust Inhibited Lithium Base All Purpose Grease	As Required	At 2,000 Miles	Pressure Fitting
15A	Oil Filter	1	.....	1 Qt.	.....	Replace Every 4,000 Miles
Misc. Hinges—Linkage and Pins			Machine Oil	Few Drops	At 2,000 Miles	With Oil Can

MAINTENANCE

Tighten the locknut. Check the fluid level in the master cylinder every 2,000 miles.

CLUTCH. The clutch pedal must be adjusted periodically in order to maintain sufficient pedal travel to fully disengage the

GUIDE TO MINOR TROUBLE SHOOTING

No matter how well the modern automobile is designed and maintained, it is prey to minor troubles caused by worn or damaged parts, maladjustments, dirt, moisture, etc. Difficulty might occur at a time when it is inconvenient for you to obtain prompt professional service for your Checker. This guide will aid you in finding minor abnormal conditions that may cause any of the symptoms listed below — but be sure to see your Checker dealer when precise adjustments or special tools or equipment are required.

Engine won't turn over . . .

1. Automatic transmission: Selector lever must be in N (Neutral) or P (Park) position.
2. Lights and Horn: If they do not work, the battery may be discharged or a cable loose or disconnected.
3. Ignition switch: Contacts may not be closing properly. Turning the switch on and off several times may eliminate the

clutch. Free-play, before effective clutch movement, should be 1 to 1 $\frac{3}{8}$ in. Adjustment is made by varying the length of the throwout lever rod. Lengthening reduces pedal free-play — shortening increases it.

trouble until you have time to replace the switch.

4. Solenoid and starter: The solenoid or starter can be made inoperative by loose, disconnected or broken wires. If all the wires appear to be in good condition and properly connected, the trouble may actually be a faulty solenoid or starter.

Engine turns over but won't start . . .

1. Fuel gauge: You may be out of gas. If the gauge indicates fuel in the tank, the trouble may be in either the ignition or fuel system.
2. Spark plugs. Check for trouble in the ignition system by pulling off a plug wire and inserting a short piece of bare wire or other metal object into the wire terminal. Hold the wire about 3/16 in. from the exhaust manifold and turn the engine over. No spark or a weak spark between the wire and the manifold may mean that the trouble is in the distributor or the coil. If the spark is good and hot, check the fuel system.

GUIDE TO MINOR TROUBLE SHOOTING

If the engine runs hot — these reasons can cause the overheating . . .

1. Insufficient coolant supply.
2. Loose fan belt.
3. Dirty cooling system.
4. Prolonged idling period.
5. Frozen cooling system.
6. Defective thermostat.
7. Overloading car, or pulling a heavy trailer in hot weather.
8. Tires underinflated during hot weather.
9. Dirt and bugs caught in radiator core.

If car steers hard . . .

Low air pressure in the tires, wheels out of line, a lack of lubricant in the steering gear box or a combination of any of these may be the cause.

If brakes fail to fully release after stopping . . .

Dragging brakes or a failure of the brakes to release can sometimes be cured by backing your car up a few inches and sharply applying the brakes. Brakes adjusted too tight — so that you need only touch the pedal to apply the brakes — may also cause this problem. This condition does not constitute a good brake adjustment and will, at the slightest increase in temperature, expand the brake fluid — thus applying the brakes. Readjustment is the proper cure, but you can attain temporary relief by opening any one of the bleeder screws to relieve expansion and prevent the destroying of brake linings. You should have these services done properly at your Checker dealer's service department.

Brake pedal is low . . .

If the brake pedal must be pressed almost to the floor before the

brakes respond, you may have air in the lines caused by an inadequate brake fluid level in the master cylinder. You can test this by pumping the pedal up and down when coming to a stop. If the pedal begins to "come up," the lines need not be bled. If the pedal position remains close to the floor, you are in need of an adjustment.

If brakes do not hold . . .

1. After driving through deep water, apply the brakes gently several times as the car is moving slowly.
2. If brakes have been subjected to abnormal use, as in mountain driving or after making a fast stop from high speeds — allow the brakes to cool.

If car rides poorly . . .

If your car is driven with less than the recommended tire pressure, an unpleasant and dangerous swaying or leaning may occur. Have your Checker dealer inspect and investigate any sudden abnormality in your car's ride.

If steering wanders or pulls at high speeds . . .

Various conditions can bring about this problem.

1. Soft tires
2. Out-of-line
3. Worn shock absorbers
4. An overloaded car
5. High cross-winds
6. A high crown in the center of the road

ELECTRICAL SYSTEM SERVICE

Your Checker car has a 12-volt system protected by circuit breakers. A malfunction will cause one of the breakers to give intermittent service in that circuit. The location of circuit breakers is as follows:

1. Headlight-taillight breaker — on the headlight switch under the dashboard.
2. Horn breaker — under the left inner front fender, above the horns.
3. All accessories (except the radio) — lower edge of dash panel and to the right of the steering column.

NOTE: The radio fuse is built into the power line from the ignition switch to the radio.

BULB REPLACEMENT. In case of bulb failure, consult the replacement table on this page and refer to the appropriate information below for the changing procedure. Replacement bulbs may be purchased from your Checker dealer, any automotive garage and most service stations.

HEADLIGHTS are sealed-beam units that can be replaced without disturbing the aim of the beam. Remove the screws from the trim ring door and from the inner retaining ring on the unit to be replaced. Remove the ring and the old unit — then plug in the replacement. Replace the retaining ring and the door.

PARKING — TAIL — BACK-UP and STOPLIGHT bulbs may easily be replaced by first removing the lens screws. Then turn the defective bulb a half turn left and pull out. Reverse the procedure to install a new bulb. Use caution to put the gasket in place before tightening all the screws.

LICENSE LAMP bulb is easily replaced by simply removing the three screws from the housing.

INSTRUMENT PANEL LIGHTS are in snap-out sockets which can easily be removed or replaced with a slight hand pressure. Dome lights are fastened by screws. To remove, pull bulb straight out.

BULB REPLACEMENT TABLE

<i>Bulb Location</i>	<i>Bulb Manufacturer's No.</i>	
Headlight	12 Volt	4001
Inner	12 Volt	4002
Outer	12 Volt	57
High Beam Indicator	12 Volt	1034
Parking Light	12 Volt	1034
Taillight	12 Volt	1034
Stop Light	12 Volt	1034
Directional Signal		
Front	12 Volt	1034
Rear	12 Volt	1034
Indicator	12 Volt	57
License Plate Lamp	12 Volt	1034
Instrument Panel	12 Volt	57
Back-Up Light	12 Volt	1073*
Dome Light	12 Volt	551
Radio Light	12 Volt	57*
Parking Brake Light	12 Volt	57*

* Optional

OPTIONAL EQUIPMENT

AIR CONDITIONING. Your Checker air conditioner selectively controls cool, dry air which circulates within the car. The controls are conveniently located on the driver's side of the instrument panel. The temperature control for your air conditioner is the push-and-pull knob located directly below the ammeter gauge. The air conditioning system is set at its coldest setting when the lever is pushed all the way in. As the lever is pulled out, it gradually warms the temperature of the air emitted from your air conditioner. Once set, the temperature is automatically maintained by a thermostatic control.

The knob below the oil pressure gauge turns on the entire unit and regulates the fan speed from low to medium to high in three stages. Individually selective air flow is possible by adjusting the two swivel louvers (mounted across the face of the evaporator). The louvers can be aimed to circulate air to either the front or the rear seat compartments or both to provide the driver and all passengers with cool comfort. (NOTE: During the normal operation of your air conditioning system, it is not unusual for the temperature gauge to read as high as 250° F. Because your Checker is equipped with a highly effective pressurized radiator system, these operating temperatures will not have any harmful effects on your engine.)

Fresh outside air may be mixed with circulating air in the car at any time by opening the vent window or the fresh air intake.

The fresh air intake is the lever located between the air conditioner's temperature control and the on-and-off switch. By simply pushing the lever to the right, fresh air enters the passenger compartment. If the car has been parked in the sun with the windows closed, maximum cooling rate can be had in a short time by opening the windows for a brief period when starting to drive. This will exhaust the accumulated warm air. After driving a short distance, simply close the window for maximum cooling. In winter it is advisable to operate the air conditioner at short intervals to assure protective lubrication of working parts. This is the only regular service required.

NOTE: It is advisable to start the engine before operating the air conditioner to reduce the battery load and to provide easier starting. Your air conditioner's magnetic compressor drive clutch has a shock-free, smooth engagement when the unit is turned on, and it is advisable not to turn on the unit if you are traveling at a speed of over 40 mph.

RADIO. A pushbutton radio in your Checker will add greatly to your driving pleasure. Stations are selected with five pushbuttons. A manual station selector knob is on the right of the console, while the knob on the left acts as the on-off switch, volume control and tune control. To reset any selector button on your console radio or to tune in another station within range, turn on

OPTIONAL EQUIPMENT

the radio and let it play for about ten seconds to warm it up. Next, pull the button to be reset straight out until it stops. Then turn the tuning knob to the station setting you want for the button. When the sound is clearest and loudest, push the selector button all the way in to lock it to the station setting.

POWER BRAKES on your Checker are designed to allow you to retain "pedal feel" even though the effort needed to apply the brakes is greatly reduced. This system uses a built-in system that provides 2 to 3 power-assisted applications after the engine is shut off so that the brakes operate as in a car not equipped with power brakes when the motor is not running. When parking on steep grades, set the parking brake. Do not release the parking brake until you have started the engine. Check the power brake fluid reservoir every 2,000 miles. For maximum application efficiency, free pedal play should not exceed $\frac{1}{4}$ in. To adjust free play, loosen the locknut on the eccentric bolt at the pushrod and rotate the bolt to obtain proper free play. Then tighten the locknut.

POWER STEERING functions whenever the engine is operating and serves to greatly reduce the effort required to steer and park your Checker. With the engine off, the car steers as if it had conventional steering. The power steering reservoir is an integral part of the pump and should be checked for proper oil

level every 2,000 miles. If oil is needed, use "Type A" automatic transmission fluid. Do not allow dirt to fall into the reservoir when the cover is removed.

PARKING BRAKE WARNING LIGHT is located to the right of the parking brake and is illuminated when the parking brake is applied. It will warn you not to put the car in motion before releasing the parking brake.

POWR-LOK REAR AXLE gives constant driving force at both rear wheels, especially in slippery driving conditions. This positive drive feature shifts driving torque from one wheel to another automatically. Driving straight ahead, Powr-lok axle keeps the car more stable by preventing one wheel from spinning if poor traction is encountered, thus adding an extra measure of safety under all driving conditions. **CAUTION:** Since torque is shifted to the stationary wheel in the Powr-lok axle, never jack-up one rear wheel if the engine is to be run with the car in gear. Cars with Powr-lok axle feature should have the rear wheels removed for balancing.

LUBRICATION. Power-Loc is factory filled with a special lubricant not generally available to the public. Under no circumstances should the standard grade rear axle lubricant be used. Add or replace only with API-GL-4 type lubricant or equivalent.

FUEL ECONOMY

Here are some tips to help you get the most economical ride possible from your Checker.

Speed. After the car break-in period, moderate constant speeds provide the best mileage. Avoid gas-consuming stops and downshifts. Accelerate at a reasonable rate and get into top gear as soon as possible. Fast acceleration will only slow down the shifting process with automatic transmission.

Idling. Idle sparingly. If you park, even for a few minutes, turn off the engine. Do not idle your engine in cold weather — drive slowly until it is warm.

TIPS FOR EASY HIGHWAY MILES . . .

Your trips will be pleasant, more enjoyable and safer if you practice these tips for easier highway miles . . .

Frequently shift your body position behind the wheel. This practice, with the occasional moving of the seat itself, will help to combat fatigue. **NOTE:** It is recommended that you only change seat position when the car is at a standstill.

You can also combat fatigue through conscious mental effort. If your finger muscles tighten-up as you grip the wheel, make an

Stopping. Make gradual stops whenever possible. This habit will save brake linings and tires, as well as gasoline.

Tires. Keep correct tire pressure always — for soft tires waste gasoline. Too hard or too soft tires lead to uneven tread wear, give a poor ride and invite tire damage.

Wheel Alignment. Faulty wheel alignment will tend to waste gas and shorten tire life.

Mechanical Condition. Have an engine tune-up every 5,000 to 10,000 miles to assure top mechanical efficiency necessary for good gas mileage.

effort to relax them. If your feet get tired, and they may, due to tight shoes or excessive warmth — there is a simple solution. Switch to soft, light shoes or sandals — but do not drive with shoes off.

To relieve eye fatigue, vary the area in front of the car, on which you focus as you drive. Remember, however, to focus farther ahead as you increase your car's speed. If your eyes tire while driving during the day, try a good quality sunglasses.

TIPS FOR EASY HIGHWAY MILES

Dimming the instrument panel lights will help to make long trips at night easier.

Drive at various legal speeds for easier highway miles, especially while driving on a turnpike. This is a safety tip, but it also

TRAVEL TRAILER TOWING

If you are among the millions of Americans who have either purchased or are considering purchasing a camping trailer, you will be pleased to know that your Checker, by design, is especially well suited to towing a heavy trailer. The full extent of your Checker's towing capabilities cannot be realized without an appropriate hitch installation. Checker Motors, in cooperation with Reese Products, has developed a bolt-on hitch, designed especially for use on our products. This hitch is available to you through your Checker or Reese Products Dealer. If you decide on another make hitch, be sure that it will take full advantage of the Checker frame and the remarkably stable Checker ride.

The electrical system for a tow car is most satisfactory when a complete six or seven conductor cable is installed from the control areas (instrument panel) to the hitch point. The practice of "cutting in" at the rear of the tow car should be abandoned. Dis-

serves to reduce fatigue. Varying your speed decreases monotony, which is a major fatigue-causing factor. You will probably find that traveling at the low end of the legal speed limit is less tiring than driving at the legal maximum.

Discuss this with your hitch installer; the extra cost of the cable is all that is really involved.

In almost every case, the tires on the Checker are adequate for trailer towing. Before deciding upon buying extra-heavy-duty tires, consider the following factors: Will you carry full loads (a full passenger load in addition to the trailer's weight)? Will you ever drive far with both of these loads? Will you attempt to drive fast with both loads on the tires? The rear tires are not vulnerable unless you tow without a load distributing hitch. With a hitch load of 1,000 lbs., the maximum increase in load on one front wheel is 250 lbs., but it is seldom more than 150 lbs. If the anticipated tire loading is likely at any time to be over 1,300 lbs., the next larger size or the four ply - eight ply rated tire should be used.

1,300 lbs., the next larger size of the four play - eight play rated

TRAVEL TRAILER TOWING

If you had towing in mind when the car was purchased, you probably purchased your Checker with an ample sized V-8 engine and heavy duty cooling system. However, if neither of these two major items are adequate for your trailer, it will probably affect your towing speed. If your Checker heats up while towing and you have reason to think that towing the trailer is causing it, you must either slow down or shift into a lower gear. If neither action helps, stop and let the engine idle faster than normal. If you are operating an air conditioner, the temperature might not go down again until the unit is turned off. If the engine is turned off while in this condition, the after-boil will be violent and restarting difficult.

Experienced trailer towers have little interest in the few remaining items which pertain more to the basic problems of towing with any vehicle, not just a Checker.

1. Safety chains often not adequate or improperly installed, should not be neglected; you might never need them except to keep within the law. These chains must always be crossed under the hitch pivot.
2. Many states have laws concerning "break-away switches," the device for applying trailer brakes in the event of coupler failure. It would be a good idea to install one, of course, only if your trailer has brakes.

3. Load distributing hitches and brakes on all trailer wheels are often prerequisites for greater allowable towing speeds. The safety factors represented by these two items cannot be ignored; improperly applied, however, serious handling problems can develop.
4. Mirrors located so that the driver is able to view both adjacent lanes and his own lane reasonably close to the rear of the trailer are very important.
5. It is rarely safe, even though possible, to back a trailer without a guide. A person, preferably an experienced driver, should be in view of the driver, ready to signal when a change of direction or speed is required.
6. Inexperienced trailer towers may not recognize problems that can develop, some of which can cause damage to both trailer and tow vehicle. It is a good idea to find a person willing to check you out and acquaint you with some means of recognition and some solutions.
7. The difficulty associated with towing a large, heavy trailer is real and not imagined; however, any competent driver should have no problem with a good "rig," after some practice.

SPECIFICATIONS AND TECHNICAL DATA (Aerobus)

Overall length		
8-Door	269.75"	
Height	64.37"	
Width	76"	
Wheelbase		
8-door	189"	
Ground clearance at rear axle	7.8"	
Tread — Front	62"	
Rear	63"	
Capacities		
Fuel Tank	23 gal.	
Crankcase	4 qts.; with filter — 5 qts.	
Automatic Transmission	19 pts.	
Rear Axle	Std. and Powr-Lok 6 pts.	
Cooling System		
With Heater	17 qts.	
With Underseat Heaters (2 units)	9 qts.	
Thermostat	180°	
Radiator Cap Pressure	13# P.S.I.	
Power Steering	Integral Type	
Ignition Timing	4° BTDC @ 700 rpm	
Spark Plug Gap	.035	
Distributor Point Gap	.019	
Cam Angle	28°-32°	
Breaker Arm Tension	19-23 in. oz.	
Tappet Clearance (Hot)		
Intake	Hydraulic — No Adjustment Needed	
Exhaust	Hydraulic — No Adjustment Needed	
Gasoline Grade	Regular	
Electrical System	12 Volt	
Tire Information		
Type	8.20 x 15 — 4 ply (8 ply rating)	
Recommended Inflation Pressure		
	<i>Cold</i>	<i>Hot</i>
Front and Rear	36	40
Engine Idle Speed		
Manual Transmission (In Neutral)	500 rpm	
Automatic Transmission (In Drive)	500 rpm	
LICENSE DATA		
	Overhead Valve Engine	
Piston Displacement	350 cu. in.	
No. of Clyinders	8	
Cylinder Bore	4"	
Stroke	3.48	
Compression Ratio	8:00:1	
Taxable Horsepower	51.2	
Firing Order	1-8-4-3-6-5-7-2	
Torque Ft. Lbs.	325 @ 2000	
Horsepower	200 @ 4000	

SPECIFICATIONS AND TECHNICAL DATA MARATHON & TAXICAB

Overall length	199½"	
Height	62¾"	
Width	76"	
Wheelbase	120"	
Ground clearance	6½"	
Tread — Front	62"	
Rear	62½"	
Capacities		
Fuel Tank	23 gal.	
Crankcase	4 qts.	
With oil filter	5 qts.	
Automatic Transmission	19 pts.	
Rear Axle	3 pts.	
Cooling System		
With Heater	6 cyl. - 12 qts.; V8 - 17 qts.	
Without Heater	6 cyl. - 11 qts.; V8 - 16 qts.	
Thermostat	195°	
Radiator Cap Pressure	13 P.S.I.	
Power Steering	Integral Type	
Ignition Timing	See Page 24	
Spark Plug Gap	.035	
Distributor Point Gap	.019 - .020	
Cam Angle	6 cyl. - 31°-34°; V8 - 28°-32°	
Breaker Arm Tension	19-23 oz.	
Tappet Clearance		
Intake	Hydraulic — No Adjustment Needed	
Exhaust	Hydraulic — No Adjustment Needed	
Electrical System	12 Volt	
Tire Information		
Types	4 Ply Rating and Tubeless	
Size	8.25 x 15	
Recommended Inflation Pressure		
	<i>Cold</i>	<i>Hot</i>
Front and Rear All Models	24	28
Engine Idle Speed		
See Sticker Affixed Under Hood of Vehicle		
LICENSE DATA		
Engine Type	6 Cyl. O.H.V.	350 V8
Piston		
Displacement	250 cu. in.	350 cu. in.
No. of Cylinders	6	8
Cylinder Bore	3.88	4.0
Stroke	3.53	3.48
Compression Ratio	8.5:1	9.0:1
Taxable Horsepower	36.0	51.0
Firing Order	1-5-3-6-2-4	1-8-4-3-6-5-7-2
Torque (lbs. ft.) (rpm)	235 @ 1600	345 @ 2800
Horsepower (rpm)	155 @ 4200	250 @ 4800
Gasoline Grade	Regular	Regular or Premium

INDEX

Air Cleaner	23	Emergency Warning Light (four-way flasher)	4	License Data (Marathon and Taxi) ..	39	Specifications	38
Air Conditioner	33	Emission Control	21	Lubrication (Aerobus)	28	Speedometer	6
Ammeter	4	Positive Crankcase Ventilation Control (P.C.V.)	21	Lubrication (Marathon and Taxi) ..	26	Starting	11
Appearance Care	19	Fresh Air Vent	4	Engine	20	Engine Cold	11
Ash Tray	14	Fuel	38	Oil Filter	22	Engine Warm	12
Battery	20	Fuel Economy	35	Trans. Std.	23	Station Wagon	16
Brakes	25	Fuel Gauge	6	Trans. Auto.	23	Temperature Gauge	6
Adjustments	25	Glove Compartment	6	Powr-Lok Axle	34	Tires	17
Brake System Warning Light	4	High Beam Indicator	4	Chassis	23	Towing	11
Parking	8	Headlight Switch	4	Chart (Aerobus)	29	Transmission	8
Service	31	Heater and Defroster	5, 15	Chart (Marathon and Taxi) 27		Standard	9
Break-in Period	12	Hood Release	7	Oil Pressure Gauge	6	Dual Range	10
Carburetor	25	Ignition	5	Positive Crankcase Ventilation (P.C.V.) ..	21	Travel Trailer Towing	36
Cigar Lighter	6	Distributor	24	Power Brakes	34	Trunk Lock	3
Clutch	30	Spark Plug	23	Power Steering	34	Turn Signal	6
Cooling System	20	Timing	23	Radio	33	Warranty .. Inside Back Cover	
Thermostat	20	Keys	3	Seat Belts	14	Wheel Alignment	18
Fan Belt Adjust.	24	License Data (Aerobus) ..	38	Spark Plugs	23	Windshield Washers	5
Drain Holes	25					Windshield Wipers	5
Electrical System	32						
Bulbs	32						