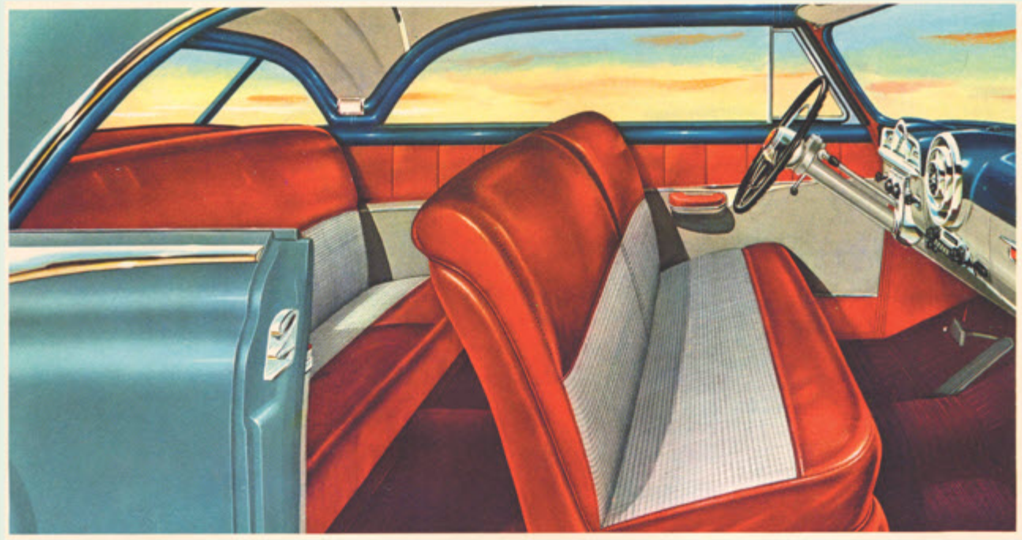

THE 1952 PONTIAC Catalina
THE SMARTEST OF THE SILVER STREAKS

THE SUPER DE LUXE CATALINA is the most luxuriously color-matched car in America—no more gorgeous interior ever graced a motor car—no interior has ever been so graciously inviting. Box-pleated, top-grain, hand-buffed leather upholstery, deep, rich carpeting and door panels are all color-matched.

A distinctive feature of the Pontiac Catalina is its unexcelled vision, starting with the broad, curved windshield and sweeping through to the crescent-shaped rear window. When side windows are lowered you have the unbroken sweep and open-aired spirit of a convertible—yet in a moment you can enjoy the snug, solid comfort of a sedan.



CHOOSE YOUR DE LUXE CATALINA INTERIOR from four smart shades of genuine leather upholstery, combined with rich cord fabric to harmonize or contrast with any one of 13 two-tone or solid body color combinations. Instrument panels in all models are color-styled to body color. De Luxe Catalina interiors include deep-pile carpeting, arm rests with built-in ash trays, front and rear courtesy lights and other custom-type appointments.

POTOMAC BLUE UPPER, MAYFLOWER BLUE LOWER

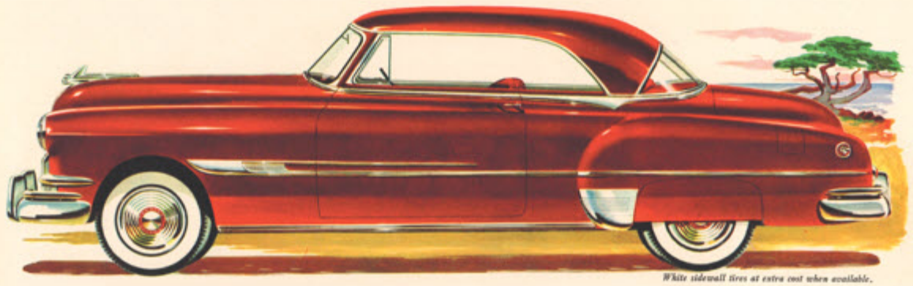
SATURN GOLD

BLACK

SHELL GREY UPPER, SMOKE GREY LOWER

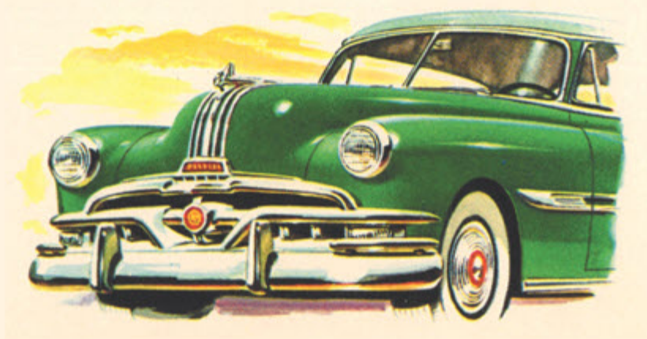
THE SMART DELUXE PONTIAC

Catalina



White sidewall tires at extra cost when available.

YOU can be beauty-wise and budget-wise, too—if you drive the smart Pontiac De Luxe Catalina. Sleeker and more glamorous than ever in 1952, the De Luxe Catalina offers such a wide choice of body colors and interior upholstery combinations that you can virtually style your own combinations! Yet despite its custom appearance, the Pontiac De Luxe Catalina is priced so low it's within reach of the average new car buyer! Here's a car that will stay smart for years and years to come—and with those years will come proof that for performance, for dependability, for carefree driving and for deep-down pride of ownership—Dollar for Dollar You Can't Beat a Pontiac!

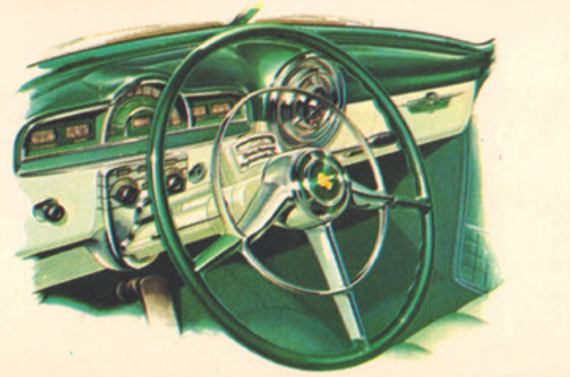


THE SUPER DELUXE PONTIAC

Catalina

White sidewall tires at extra cost when available.

STANDING apart from all other cars on the road, the Pontiac Super De Luxe Catalina for 1952 continues to hold its place as America's most distinctive automobile. Beautiful, low and sleek in design, it combines the strength, quiet and comfort of a luxurious sedan with the grace and dash of a smart convertible. For admiring glances all along the way, you'll choose the Super De Luxe Catalina—the car that all America took to its heart!

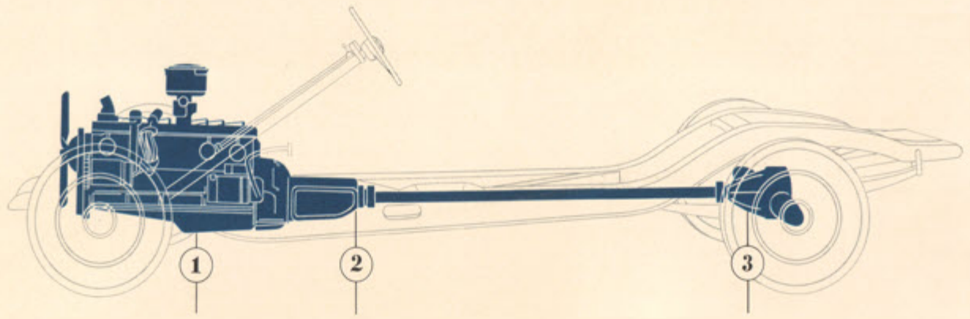


Even the steering wheel and the instrument panel with its smart ebony and chrome highlights are designed to match the Super De Luxe Catalina colors.

DRIVE IT YOURSELF!
FOR THE THRILL OF A LIFETIME–

Pontiac's

Spectacular New *Dual-Range* Performance!



THE POWER YOU WANT...WHEN YOU WANT IT...WHERE YOU WANT IT!

1 Powerful High Compression Engines

The big Pontiac 8 cylinder engine shown here develops 122 h.p. with a compression ratio of 7.7 to 1. The six develops 102 h.p. Either will give you the ultimate in performance with traditional Pontiac economy and all the dependability and trouble-free long life for which Pontiac has become world famous.

2 New Dual-Range Hydra-Matic Drive*

Dual-Range Hydra-Matic Drive is the world's most advanced automatic transmission, instantly responsive to the accelerator, yet economical to drive and maintain. With Dual-Range Hydra-Matic Drive you can elect the performance range you want—powerful "go" for traffic or economical cruising for the open road.

3 High Performance Economy Rear Axle

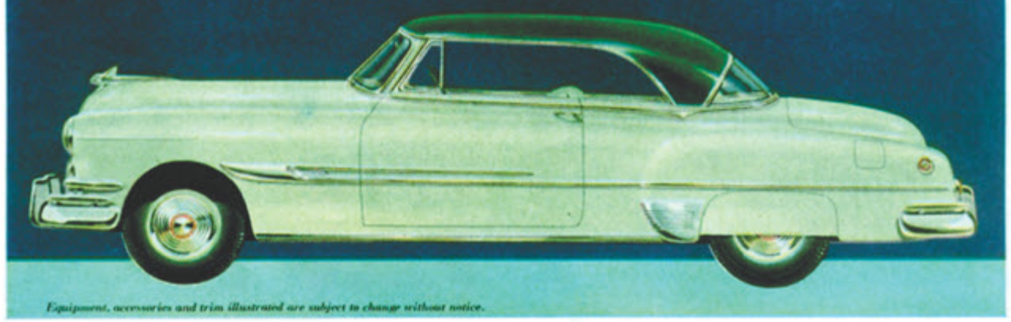
By utilizing more powerful engines and Dual-Range Hydra-Matic Drive, Pontiac has been able to provide a low axle ratio that means fewer engine revolutions in relation to car speed. This means peak economy in normal city and highway operation—with cruising so quiet and effortless you almost feel you're coasting!

**Optional at extra cost.*

Presenting the

'52 Pontiac

with Spectacular *Dual-Range* Performance!



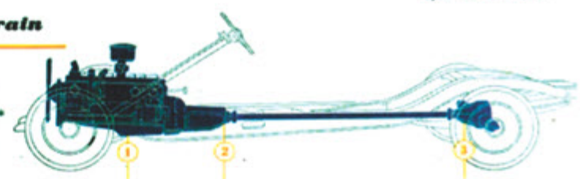
Equipment, accessories and trim illustrated are subject to change without notice.

BE sure to see the great 1952 Pontiac! It brings you General Motors' sensational new Dual-Range Hydra-Matic Drive* — coupled with Pontiac's great high-compression engine—and a new high-performance, economy axle. At the *touch of your finger*, you can elect to have tremendous acceleration and snap and go! Or, with equal ease, you can choose an altogether *different* type of performance; silken, gliding, gas-saving—perfection itself for the open road. In other words, you have the power you want—*where* and *when* you want it. And there are many *other* advancements in the new Pontiac, too. Better *see* it—*drive* it—today. It's a sensation!

**Optional at extra cost.*

Featuring a Wonderful New Power Train

1. More Powerful High-Compression Engine
2. Wonderful Dual-Range Hydra-Matic Drive*
3. New High-Performance Economy Axle



THE POWER YOU WANT WHEN YOU WANT IT WHERE YOU WANT IT

DOLLAR FOR DOLLAR YOU CAN'T BEAT A PONTIAC • PONTIAC MOTOR DIVISION OF GENERAL MOTORS CORPORATION

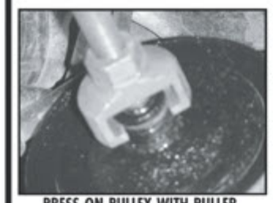
Replacing a Power Steering Pump

My Experience Is...

by Joe Rabelskie

*From 2007, a tribute to our old friend and restorer, Joe Rabelskie.

There was a time when one could just go to the local parts store and buy a rebuilt power steering pump that was ready to bolt on; but now, there are so many different model reservoirs that use the same pump, that all one can usually find is the rebuilt guts, and the customer has to use the original reservoir. This is why many mechanics cringe when they realize that their power steering pump has stopped working. This does not have to be a major problem however, once one knows what to expect.

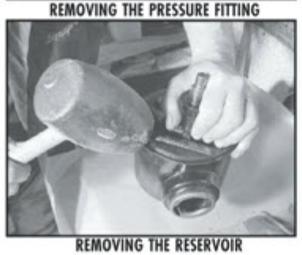


PRESS ON PULLEY WITH PULLER

Most of the time, the bracket has to be taken off with the pump. Once the pump and bracket are removed, the pulley can be removed, allowing the bracket to be taken off. There are basically two ways that the pulleys are attached. If there is a nut on the front, the nut can be removed and the pulley slid off. A woodruff key keeps the pulley from turning on the shaft. If there is no nut there will be some kind of flange. This constitutes being pressed on. A special puller can be slid onto the flange and pulled off.

Once the pulley is off, there are usually a couple of bolts in the front and a couple of bolts in the rear of the pump which need to be removed, allowing the bracket to be taken off. There will also be a pressure fitting in the rear that the pressure hose screws onto. The front bolts screw directly into the casting, but the rear bolts and the pressure fitting go through the reservoir, so they need to be sealed. The bolts usually use an o-ring or a gasket that is installed on them just before installation. The pressure fitting, however, uses a very thick o-ring on its shaft and an o-ring that fits into a groove between the pump casting and the reservoir.

REMOVING THE PRESSURE FITTING



REMOVING THE RESERVOIR

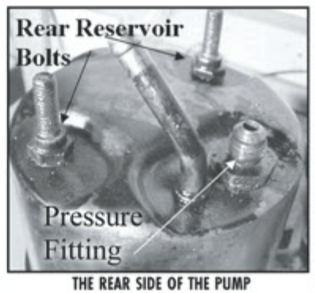
After the bolts and the pressure fitting have been taken out, the reservoir will be ready for removal. At this point, the reservoir is only held on by the pressure of the front seal; although, time will have made it stubborn so it will need persuasion. It is a good practice to hold the pump off of a bench a couple of inches and tap on the outer lip of the reservoir with a rubber mallet until it breaks loose. This is an excellent time to be careful, as using a metal hammer or hitting it too hard could cause damage to the reservoir resulting in a leak after it is reassembled.

REMOVING THE RESERVOIR FRONT SEAL

REAR RESERVOIR SEAL CAN BE SEEN

At this time, all of the parts should be cleaned well in mineral spirits and wiped with lacquer thinner or such. Next, all of the rubber should be coated with power steering fluid and the front and rear reservoir seal should be installed. Then, being careful so that the seals stay in position, the reservoir can be slid on to the pump. It will be easy to see if the front o-ring is staying in position. It will be hard to see the rear o-ring during assembly, but after it is together one can see clearly if it is in position or not.

Then, the pressure fitting and rear mounting studs should be put back in with o-rings or gaskets and the bracket reinstalled. Finally, the pulley can be put back on. If one has a bolt on pulley, just make sure that the woodruff key stays in place, slide the pulley on and tighten the nut. If there is a press on pulley, the pump should come with a piece of all thread and a nut. The all thread should be screwed into the end of the pulley shaft, the pulley placed on and drawn down with the nut and a washer. Note that it is recommended to hold the pulley and draw it down by hand with a wrench. This will not be easy but eliminates damage from an impact gun (although many have had good luck using one). The only thing left to do at this point is to put the unit back onto the vehicle



THE REAR SIDE OF THE PUMP

This all seems like a lot of work, but it is really not. Many machine shops love to do jobs just like this because it seems like it is hard work, but it is really easy money. When restoring old cars, these are just the kind of jobs that one should not be afraid to tackle. One just needs to take time to be careful, have an idea about what the job entails, and there is money to be made or saved.

Southern Wheels

TECHNICAL SERVICE BULLETIN

SERVICING 1955 CHEVY PASSENGER CAR BRAKES

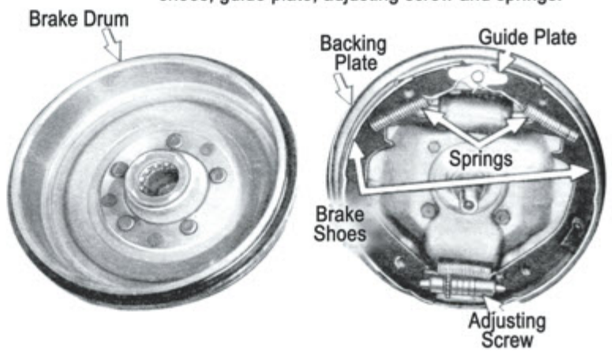
Duo-Servo Single Anchor Type (Bendix)

Also for 1955 Nash: Ambassador, Statesman; Hudson: Hornet, Wasp, and Packard

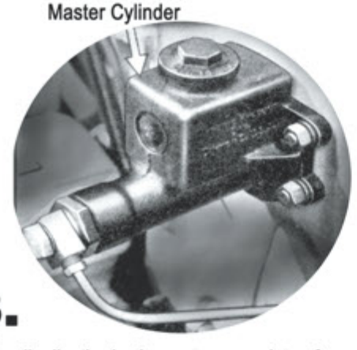
Brakes used on both the front & rear wheels of all 1955 model Chevrolet passenger cars are of the Duo-Servo, self-energizing, single anchor type.

1.

2. Mechanically, the brake system consists of a brake drum, backing plate, primary & secondary brake shoes, guide plate, adjusting screw and springs.



Master Cylinder



3.

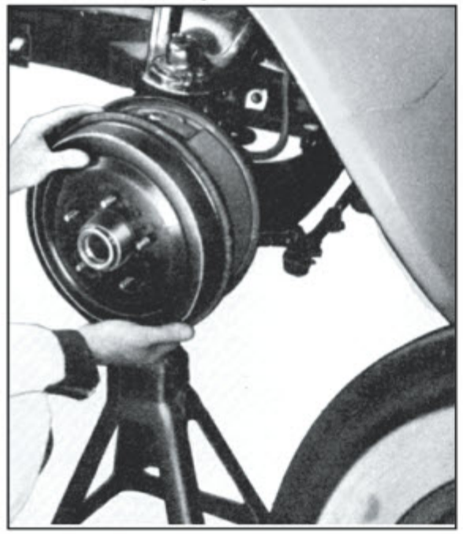
Hydraulically, the brake system consists of a cowl-mounted master cylinder, as well as one backing plate-mounted wheel cylinder for each of the four wheels.

4.

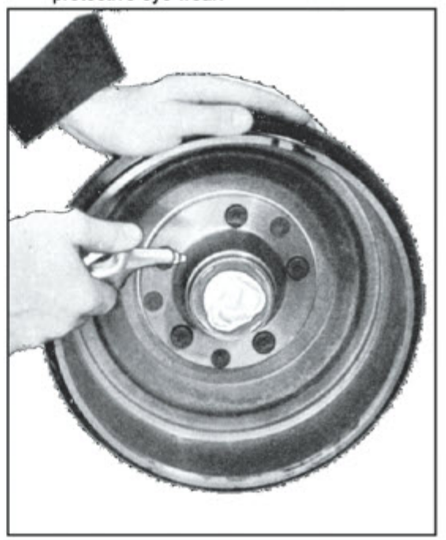
Most brake troubles, other than normal wear, are caused by one or more of these faulty conditions:

~Non-concentric Lining & drum
~Bell-mouthed Drum
~Out-of-Round Drum
~Loose Anchor Pin
~Loose Backing Plate
~Grease on Linings
~Improper Adjustment
~Improperly Adjusted wheel bearings
~Improper Lining Break-in

5. To begin brake service, raise the vehicle and place it on jack stands. Remove wheel disc or hub cap, wheel nuts and wheel & tire assembly. Then remove dust cap, cotter pin, spindle nut, washer and outer wheel bearing and brake drum.



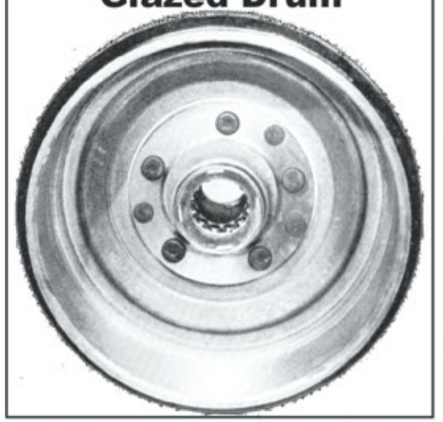
6. Clean all dirt out of the drum. Avoid getting dirt into the front wheel bearing. Inspect the drum for scoring, glazing, cracks, heat checks, out-of-round, or bell-mouthing.
IMPORTANT: Always wear a respirator and protective eye wear!



Scored Drum

7. Scored drums should be reconditioned, or, if too badly worn, should be replaced promptly. Their continued use will result in excessive lining wear and erratic brake action.

Glazed Drum

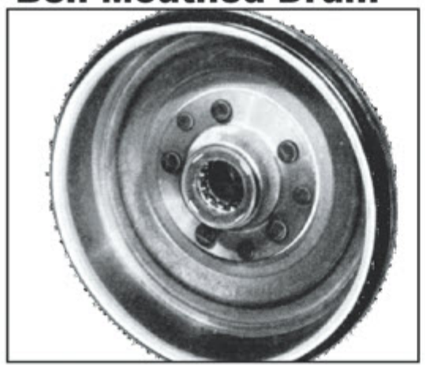


8. Glazed drums reduce effectiveness of braking action and cause "hard pedal." Drum glaze usually can be removed with emery cloth.
IMPORTANT: Remove all traces of emery cloth before drum is reused!

CONTINUED

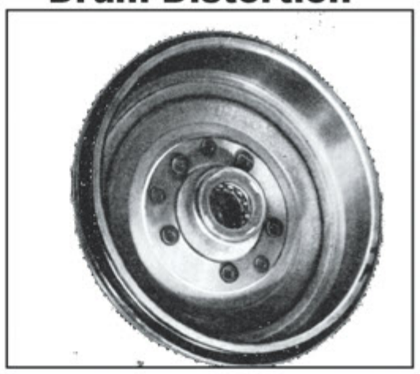
9. Bell-mouthed drums are usually created by excessive heat within the brakes. Bell-mouthed condition will cause only partial lining-to-drum contact and "hard pedal." Slightly bell-mouthed drums might be able to be re-conditioned.

Bell-Mouthed Drum



10. Drum distortion (out-of-round) is also caused by excessive heat. A distorted drum causes "pedal fight" when brakes are applied. A drum that is more than .010" out of round must be reconditioned.

Drum Distortion

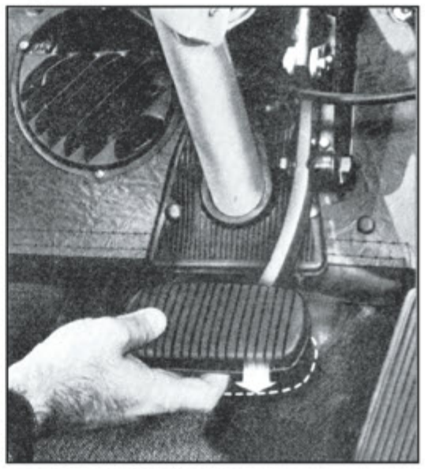


11.

DRUM RECONDITIONING

If drum is to be reconditioned for use with standard size linings, only enough metal should be removed to produce a smooth braking surface. If the drum needs more than .010" reboring, it should be rebored to .060" oversize and the brake linings should be replaced with .030" oversize linings. IMPORTANT: The inside diameters of the reconditioned drums must be identical, but do not remove more than .060" from standard drum, or loss of metal will affect heat dissipation and might cause drum distortion.

12.

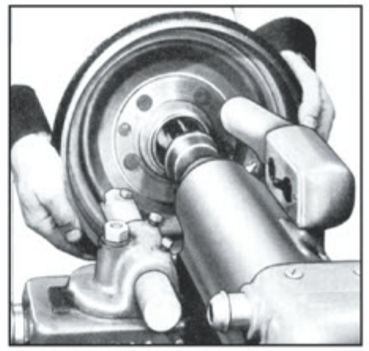


To begin brake drum or lining service, check the brake pedal "free play" and adjust pedal if necessary to provide 1/2" clearance. This adjustment is very important and must be made before any brake work is performed.

What your brake servicing professional will do:

13. Using a brake drum indicator gauge as shown below, check the inside diameter of the drums to be reconditioned. Mark down the readings obtained and machine the drum with the largest inside diameter first.

14. Remove the grease seal and the inner wheel bearing. Choose the correct size radii and tapered cones and mount the drum into a drum lathe. IMPORTANT: Be sure the radii and cones are completely free of dirt or burrs.



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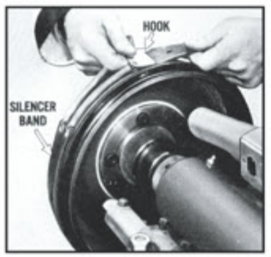
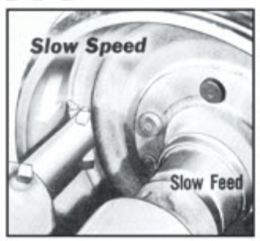


Wrap rubber silencer band around the drum, the end without a hook first. Draw it up tight and insert hook. This eliminates drum chatter which makes for an unsatisfactory finish.

16.

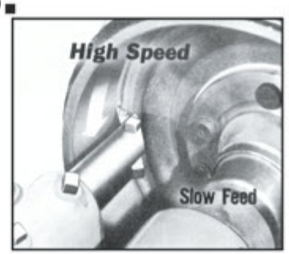
Choose a carbide tipped cutting tool suitable for the job. Use a replaceable tip for light or medium machining, or a brazed tip for heavy machining. Mount in holder securely with correct overhang.

17.



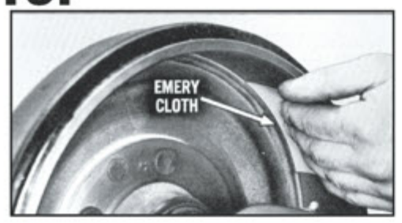
Start lathe and make first cut of tool only deep enough to remove shallow scores. Run at slow feed and speed. Start tool at extreme edge of drum and make sure entire surface is machined.

18.



Start tool again at extreme inner edge of drum and run final cut of tool at high speed and slow feed to produce a smooth braking surface. IMPORTANT: Never remove more than .060" from a standard drum (.030" cut.)

19.

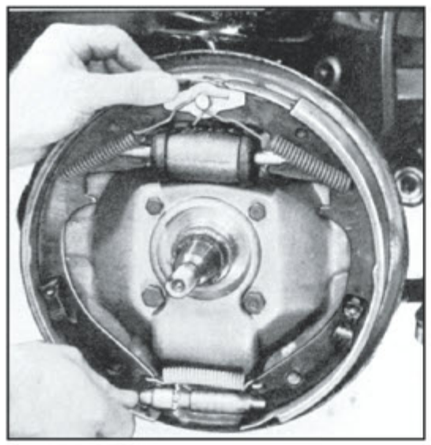


Finish drum rebore by dressing the machined surface with emery cloth. When the surface is smooth and shiny, stop the lathe and thoroughly clean the drum with compressed air, then remove the drum from the lathe.

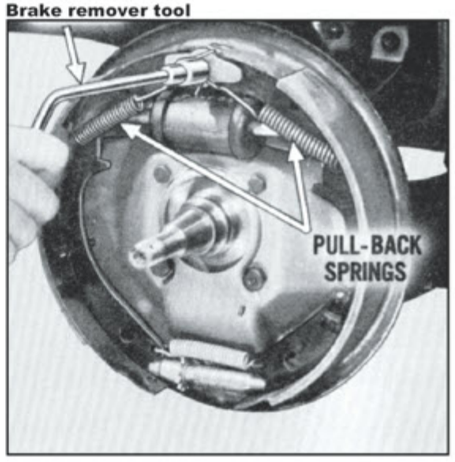
CONTINUED

BRAKE SHOE REPLACEMENT

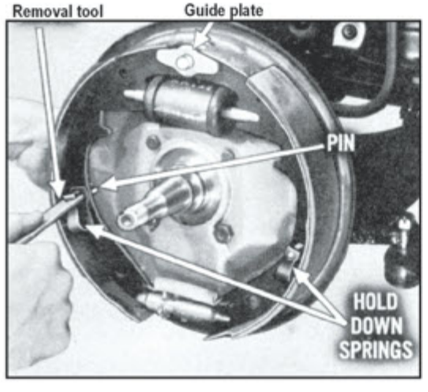
20. Check each brake shoe to make sure it is resting on all backing plate faces. Press heel of shoe and then press the toe. If the shoe rocks, center faces are too high and must be filed down to correct height.



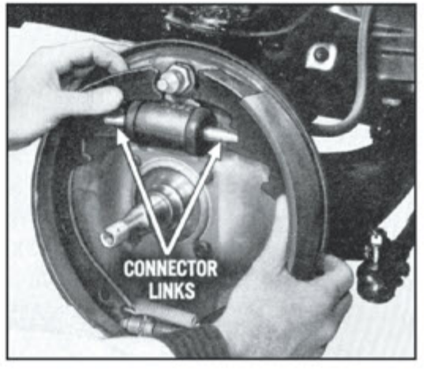
21. Unhook the brake shoe pull-back springs from their anchor pin using a brake remover tool. IMPORTANT: Due to wheel cylinder design, it is not necessary to use clamps unless there is a possibility of the brake pedal being depressed.



22. Unhook the brake shoe hold-down springs using removal tool. Removed hold-down springs and pins, as well as the guide plate.

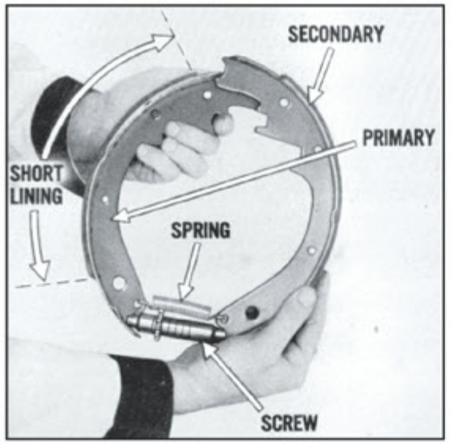


23. Spread shoes to clear the wheel cylinder connector links, then remove the shoe assembly from the backing plate.

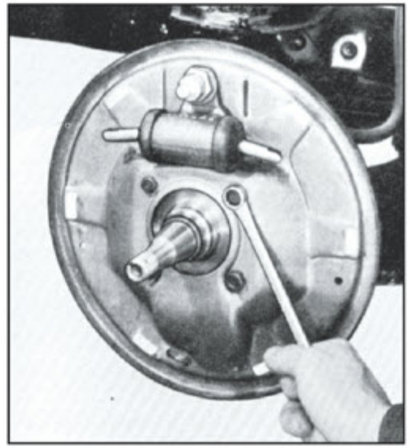


BRAKE SHOE REPLACEMENT

24. Separate the primary and secondary shoes by removing the adjusting screw and spring. Remember that the primary shoe has a short lining and faces toward the front of the vehicle when it is installed properly.

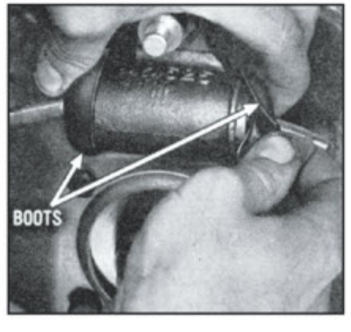


25. Check the backing plate attaching bolts to make sure they are securely tightened and not cross-threaded. Clean the backing plate thoroughly with cleaning solvent and dry with compressed air. IMPORTANT: Do not allow the cleaning solvent to enter the wheel cylinder.

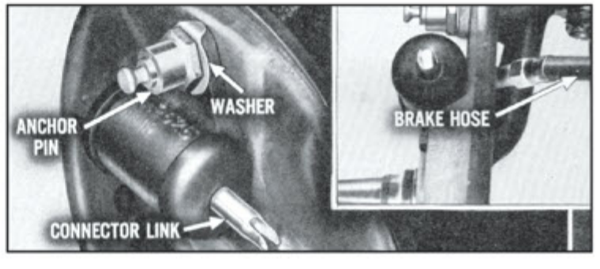


WHEEL CYLINDER REPLACEMENT

26. Carefully pull the lower edges of the wheel cylinder boots from the cylinders to check for leaks. A very little amount of fluid is normal, but excessive fluid means there is leakage past the piston cups, requiring overhaul or replacement of the wheel cylinder.



27. To replace a bad wheel cylinder, loosen the brake hose to wheel cylinder fitting about one-half turn. Straighten the anchor pin washer and unscrew the anchor pin, then remove the connector links.



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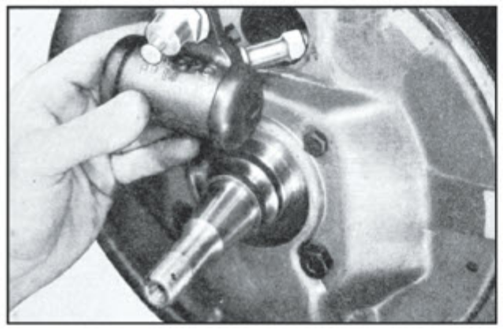
WHEEL CYLINDER REPLACEMENT

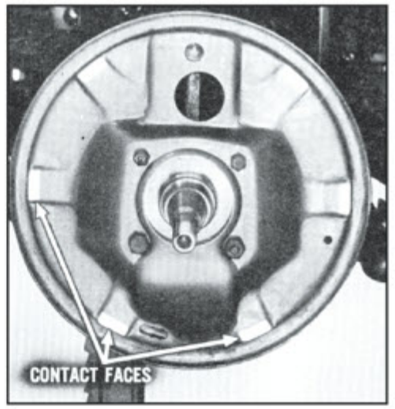
28.

Pull the wheel cylinder, anchor pin and washer, and brake hose away from the backing plate. Remove the pin and washer. Unscrew the cylinder from the hose.



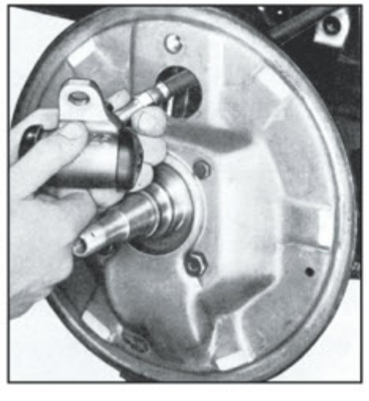
29.

Inspect the backing plate to ensure that the contact faces are clean and shiny. Use emery cloth if necessary, to remove any rust or built-up scale from the faces.



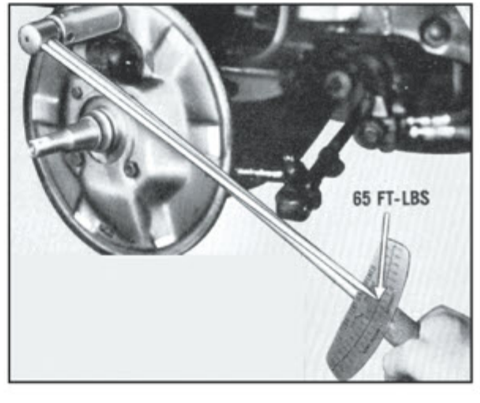
30.

To install the new wheel cylinder, insert the brake hose fitting through the wheel cylinder mounting hole. Start the fitting in the wheel cylinder and run it up snugly.



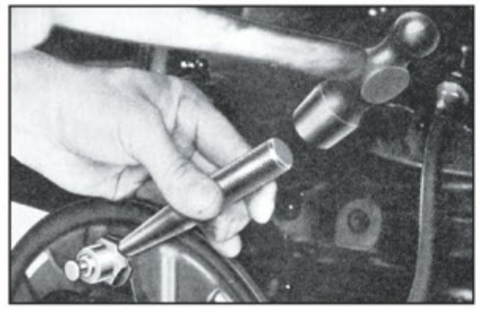
31.

Using a new washer, insert the anchor pin through the wheel cylinder and screw it into the steering knuckle threads. Torque the anchor pin to 65 ft lbs.



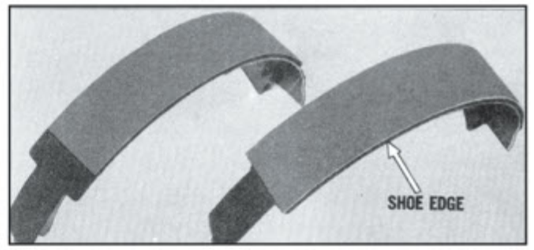
32.

After you have torqued the anchor pin, peen the anchor pin washer to prevent the pin from coming loose during application of the brakes. Then tighten the brake hose securely.



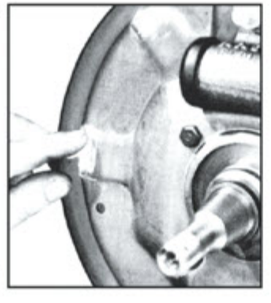
33.

Inspect the new brake shoes for nicks or burrs. Check for excess bonding material along shoe edges. IMPORTANT: Be sure your hands are clean when handling brake shoes. Do not permit oil or grease to come in contact with the linings.



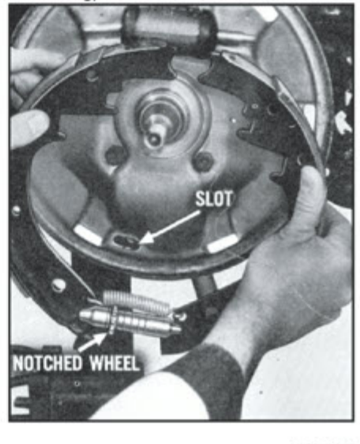
34.

Lubricate the threads and socket end of the adjusting screw with thread lubricant. Also spread a thin film of the lubricant on the backing plate contact faces and install the wheel cylinder connector links.



35.

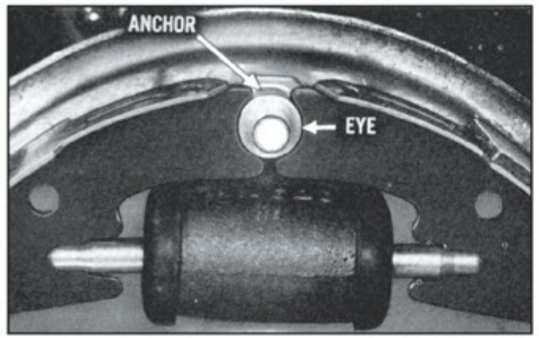
Connect the brake shoes together with the adjusting nut spring. Place the adjusting nut screw, socket and nut into position. Be sure that the notched wheel on the adjusting screw lines up with the adjusting slot in the backing plate, and that the primary shoe (shoe with the short lining) faces the front of the vehicle.



CONTINUED

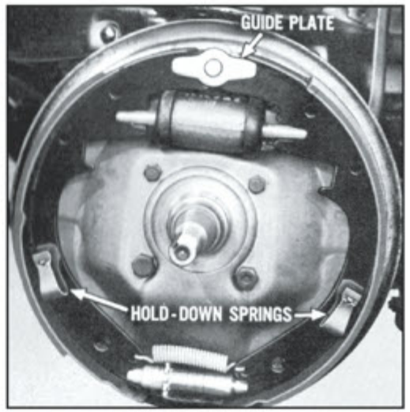
36.

Engage the brake shoes with the connector links and check the fit of the secondary shoe "eye" in relation to the anchor pin. An oversized "eye" will cause "wedging."



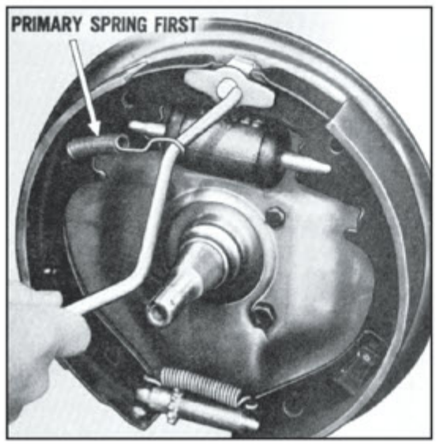
37.

Install the brake shoe hold-down springs and pins with an installation tool. Also install the guide plate over the anchor pin.



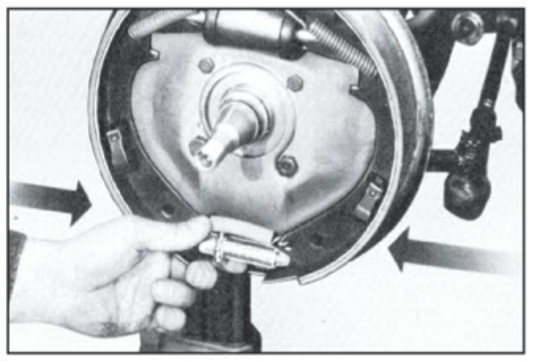
38.

Hook the primary pull-back spring into the brake shoe and install the free end of the spring over the anchor pin. Afterward, install the secondary spring using the same method.



39.

Test the brake assembly to see that it is free to slide both forward and backward on the backing plate contact faces.

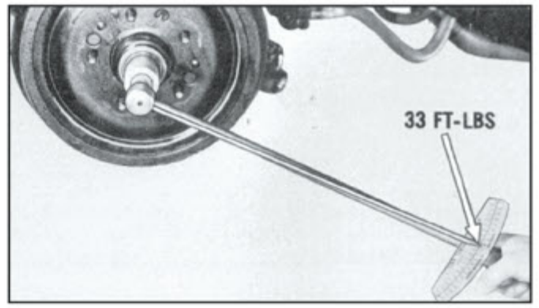


40.

Lubricate and install the inner wheel bearing and a new grease seal in the drum. Use a seal that has been soaked in light engine oil. Tap seal flush with the hub surface.

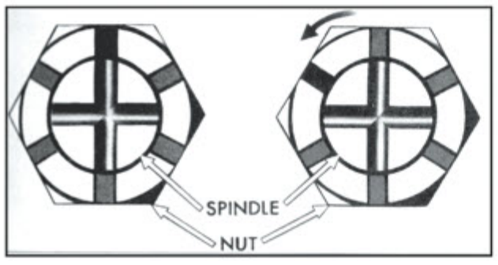
41.

Back the adjusting screw off seven notches and install the drum. Lubricate and install the outer wheel bearing, then install the washer and spindle nut. Tighten the spindle nut to 33 ft lbs while rotating the drum



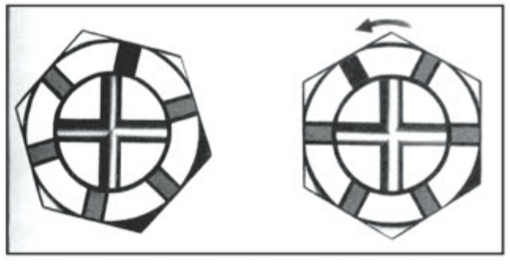
42.

Check the location of the slot in the nut in reference to the hole in the spindle. If the slot and hole are lined up, back the nut off until the slot in the nut is lined up with the same hole in the spindle.



43.

After being properly torqued, if the slot in the spindle nut is just beyond the hole in the spindle, back off the nut to align the slot with the next hole in the spindle.

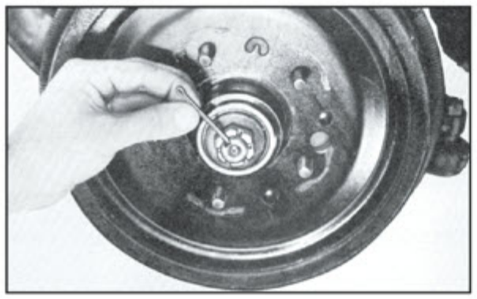


CONTINUED

SERVICING 1955 CHEVY PASSENGER CAR BRAKES

44.

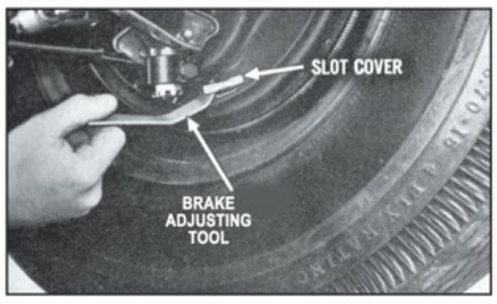
Spin the drum to make sure it rolls freely. If it does, install a cotter pin and lock it into place by spreading and bending the ends. Install the dust cap, wheel and tire assembly and wheel disc or hub cap.



Before you lower the car to the floor, recheck the brake adjustment. Proper brake shoe adjustment is very important to ensure correct brake operation. Brake shoes must be adjusted to the brake drum with just the right amount of running clearance to prevent "brake drag" or "low pedal." It is also important that the brake linings on all four wheels are adjusted to the same running clearance.

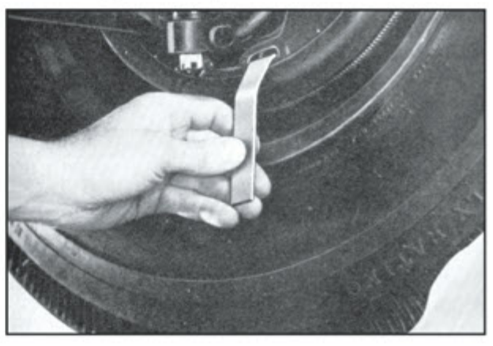
45.

To begin adjustment, remove the cover from the adjusting hole in the backing plate. Insert brake adjusting tool through the hole and engage the notched wheel on the adjusting nut.



46.

Lift up on the tool to turn the adjusting screw in the "expanding" direction. Continue expanding the shoes until a light uniform drag is felt when turning the wheel by hand.



47.

Back off the adjusting screw 7 notches to establish the right running clearance between the linings and drum. Repeat for each wheel and replace the adjusting hole covers.

48.

Check the fluid level in the master cylinder. Add fluid and, if the hydraulic line was disconnected, bleed the brakes. Lower the vehicle to the floor and road-test for brake operation.
FINALLY: A very important step is new lining break-in. Avoid severe braking until the brake surfaces have well-mated surfaces.

SPECIFICATIONS

HUPMOBILE 6 and CUSTOM 6

ENGINE—6-cylinder L-head, developing 101 h.p. at 3600 r.p.m.; Rated S.A.E. Horsepower 29.4; Piston Displacement 245.3 cu. in. (4.02 L.); Bore 3½ in. (88.9 mm.); Stroke 4¼ in. (108 mm); Compression Ratio 5.75 to 1; Drop-forged, counterweighted crankshaft with 4 main bearings; Rubber engine mountings; Rifle-drilled connecting rods selected for uniform weight and center of gravity; Aluminum alloy pistons; 2 compression rings—2 oil rings; Piston travel per mile, 2370 ft. (722 m).

LUBRICATION—Full-pressure lubrication to all main, camshaft, connecting rod bearings, piston pins and valve lifters; Fine-mesh screen oil filter; Gear-type oil pump; Normal oil pressure 30 lbs. (13.6 kgs.) at 30 m.p.h. (48.28 km.); Crankcase capacity 6 qts. (5.68 L.); Crankcase ventilation.

COOLING SYSTEM—17" (431.8 mm) diameter 4-blade fan driven by V-type belt; Cellular Core Radiator; Capacity of cooling system 18 qts. (17.05 L.); Thermostatic temperature control with recirculation; Centrifugal water pump.

AXLES—Front, Reversed Elliot I-Beam; Tread 59¾" (1508.1 mm); Road Clearance 7½" (190.5 mm); Rear axle, semi-floating; Tread 60¼" (1530.35 mm); Road clearance 8⅛" (206.4 mm).

BRAKES—Weather protected, double-acting, hydraulic; Total braking area 166 sq. in. (1071 sq. cm); 10" (254 mm) cast-iron drums; Braking power division 55% front, 45% rear; Mechanical emergency brake (lever mounted on cowl) operates on rear wheels.

FUEL SYSTEM—Carburetor—Carter Triple Venturi, Down Draft; Accelerating Pump; Metering Rod Economizers, vacuum controlled; Anti-Percolating Unit; A. C. Air Cleaner and Intake Silencer; Automatic Choke; Automatic Manifold Heat Control; A. C. Mechanical Fuel Pump; Gasoline line located outside frame, away from exhaust; Stewart-Warner gasoline gauge on instrument panel; Gas tank capacity 16 gals. (60.56 L).

CLUTCH—Single Plate Dry Disc; 9⅞" (250.8 mm) diameter; 94.28 square inches (608 sq. cm) of facing area; 1 driven disc; 9 pressure springs.

ELECTRICAL SYSTEM—15-plate, 6-volt Willard Storage battery—capacity 105 ampere hours; Beam-selector-type lighting system with selector control on instrument panel and deflector control on toe board; Auto-lite generator with voltage control; Air Type Horn; Auto-Lite ignition system with automatic spark control; Powerful Bendix starting mechanism—pull button on dash.

FRAME—Double-drop X-type.

SPRINGS—Semi-Elliptic front and rear; Metal spring covers; Rubber bushings; Front springs 42" (106.68 cm) long, rear 54" (137.16 cm) long; width 1¾" (44.5 mm).

SHOCK ABSORBERS—Hydraulic, double-acting front and rear.

STEERING GEAR—Worm and double-roller type; ratio 16.4 to 1; Steering wheel diameter 18" (45.72 cm); Right hand drive available at slight extra cost.

TRANSMISSION—Short-shift, Synchro-Silent—Constant Mesh. All helical gears. Silent in all speeds; Super Drive (available at slight extra cost); Gear ratios—low, 2.57 to 1; second, 1.55 to 1; high speed (direct drive), 1 to 1; reverse, 3.48 to 1; Super Drive, .722 to 1.

WHEELS AND TIRES—Steel disc wheels 16" x 4½" (406.4 mm x 114.3 mm) with provisions for tire chains; Tires 6.25 x 16; Minimum pressure front 26 lbs. (1.828 kg per sq. cm); minimum pressure rear 26 lbs. (1.828 kg. per square cm).

BODIES—Steel reinforced by steel, insulated steel top panel; Control-Air ventilation front and rear quarter windows; Safety glass in all windows and windshield; Extra-width seats front and rear (front seats 55½" (140.91 cm) wide); Extra head room and leg room; Luggage compartment in rear opens from outside—conceals spare tire; All doors locked from inside; Upholstery is finest quality cloth or Mohair (optional). Leather upholstery available at slight extra cost.

INSTRUMENT PANEL—Ultramodern design with tasteful and abundant use of plastics; All gauges easily visible—edge lighted; All controls within easy reach; Glove compartment on right-hand side.

HUPMOBILE CUSTOM 8

ENGINE—8-in-line L-head, developing 120 h.p. at 3500 r.p.m.; Rated S.A.E. Horsepower 32.5; Piston Displacement 303.2 (4.968 L.); Bore 3⅛" (81 mm); Stroke 4¾" (120.7 mm); Compression Ratio 5.8 to 1; Drop-forged, counterweighted crankshaft with 5 main bearings; Rubber engine mountings; Rifle-drilled connecting rods selected for uniform weight and center of gravity; Aluminum alloy pistons; 2 compression rings; 2 oil rings; Piston travel per mile—2620 ft. (798.55 m) in conventional, 1850 ft. (563.86 m) in overdrive.

LUBRICATION—Full-pressure lubrication to all main, camshaft, connecting rod bearings, piston pins, and valve lifters; Fine-mesh screen oil filter; Gear-type oil pump; Normal oil pressure 30 lbs. (13.6 kgs) at 30 m.p.h. (48.28 km); Crankcase capacity 8 qts. (7.57 L); Crankcase ventilation.

COOLING SYSTEM—17" (431.8 mm) diameter, 4-blade fan driven by V-type belt; Cellular Core Radiator; Capacity of cooling system 21½ qts. (20.33 L.); Thermostatic temperature control, with recirculation; Centrifugal water pump.

AXLES—Front, Reversed Elliot I-Beam; Tread, 58⅛" (1479.5 mm); Road Clearance, 7⅝" (193.7 mm); Rear axle, semi-floating; Tread, 60 ⅜" (1538.3 mm); Road clearance, 8" (203.2 mm).

BRAKES—Weather protected, double-acting, hydraulic; Total braking area 201 sq. in. (1296.8 sq. cm); 12" (304.8 mm) cast iron drums; Braking power division 55% front, 45% rear; Mechanical emergency brake (lever mounted on cowl) operates on rear wheels.

FUEL SYSTEM—Carburetor—Carter Triple Venturi, Dual Down Draft; Accelerating Pump; Metering Rod Economizers; Anti-Percolating Unit; Air Cleaner and Intake Silencer; Automatic Choke; Automatic Manifold Heat Control. A. C. Mechanical Fuel Pump; Gasoline line located outside frame, away from exhaust; Stewart-Warner gasoline gauge on instrument panel; Gas tank capacity 16 gals. (60.56 L).

CLUTCH—Single-Plate Dry Disc; 10" (254 mm) diameter; 100.5 square inches (648.4 sq. cm) of facing area; 1 driven disc; 9 pressure springs.

ELECTRICAL SYSTEM—17-plate, 6-volt Willard Storage Battery—capacity 120 ampere hours; Beam-selector-type lighting system with selector control on instrument panel and deflector control on toe board; Auto-lite generator with voltage control; Air Type Horn; Auto-Lite ignition system with vacuum spark control; Powerful Bendix starting mechanism—pull button on dash.

FRAME—Double-drop X-type.

SPRINGS—Semi-Elliptic front and rear; Metal spring covers; Rubber bushings; Front springs 43 ⅔" (109.9 cm) long, rear 64" (162.56 cm) long; width, 2" (50.8 mm).

SHOCK ABSORBERS—Hydraulic, double-acting front and rear.

STEERING GEAR—Worm and double-roller type; ratio 16.4 to 1; Steering wheel diameter 18" (45.72 cm); Right hand drive available at slight extra cost.

TRANSMISSION—Short-shift, Synchro-Silent—Constant Mesh. All helical gears. Silent in all speeds; Super Drive standard; Gear ratios—low, 2.526 to 1; second, 1.518 to 1; high speed (direct drive), 1 to 1; reverse 3.158 to 1; Super Drive, .705 to 1.

WHEELS AND TIRES—Steel disc wheels 16" x 4½" (406.4 mm x 114.3 mm) with provision for tire chains; Tires 6.50 x 16; Minimum pressure front 26 lbs. (1.828 kg per sq. cm); minimum pressure rear 26 lbs. (1.828 kg. per square cm).

BODIES—Steel reinforced by steel, insulated steel top panel. Control-Air ventilation front and rear quarter windows; Safety glass in all windows and windshield; Extra-width seats front and rear (front seats 55½" (140.91 cm) wide); Extra head room and leg room; Luggage compartment in rear opens from outside—conceals spare tire; All doors locked from inside; Upholstery is finest quality cloth or Mohair (optional). Leather upholstery available at slight extra cost.

INSTRUMENT PANEL—Ultramodern design with tasteful and abundant use of plastics; All gauges easily visible—edge lighted; All controls within easy reach; Glove compartment on right-hand side.

PERFORMANCE DATA, DIMENSIONS AND CAPACITIES (Hupmobile 6, Custom 6 and Custom 8)

	SIX		EIGHT	
Curb Weight (4-door Touring Sedan) approx.	3500 lbs.	1587.56 kgs	4050 lbs.	1837 kgs
Over-all Length	203¾ in.	517.53 cm	206⅝ in.	522.3 cm
Over-all Length, less bumpers	193 ⅜ in.	491.33 cm	196⅝ in.	498.8 cm
Over-all Height (4-door Sedan)	68 ⅛ in.	173.83 cm	68 ⅛ in.	172.88 cm
Over-all Width	74 in.	187.96 cm	74 in.	187.96 cm
S.A.E. Horsepower (licensing)	29.42		32.51	
Developed (Actual) Horsepower	101		120	

	SIX		EIGHT	
Car Speed	80 m.p.h.	128.75 km	85 m.p.h.	136.79 km
Gas Tank Capacity	16 gals.	60.56 L	16 gals.	60.56 L
Crankcase Capacity	6 qts.	5.68 L	8 qts.	7.57 L
Cooling System Capacity	18 qts.	17.05 L	21½ qts.	20.33 L
Transmission Capacity	2¼ pts.	1.06 L	3½ pts.	1.65 L
Differential Capacity	2¾ pts.	1.3 L	3½ pts.	1.65 L
Tread (front)	59¾ in.	1508.1 mm	58⅛ in.	1479.5 mm
Tread (rear)	60⅜ in.	1530.35 mm	60 ⅜ in.	1538.3 mm
Tire Size	6.25 x 16		6.50 x 16	
Super Drive Transmission Capacity	6 pts.	2.84 L	7 pts.	3.31 L

Specifications subject to change without notice.

HUPP MOTOR CAR CORPORATION • DETROIT, MICHIGAN