PARTS • ACCESSORIES • PRODUCT

SERVICE Counselor

PACKARD MOTOR CAR COMPANY

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Service Replacement Engine

2003-06, 2103-06-26 2206-13-26-33, 2313

The 356 Cu. in. engine is no longer available for the Custom Eight, Models 2003-06, 2103-06-26, 2206-13-26-33, 2313 when equipped with a standard transmission or overdrive.

A current series 327 Cu. in. engine (9 main bearings) with attaching parts kit is now available as a service replacement for these models. The engine is similar to the one used in a 2626 model when equipped with a standard transmission or overdrive *except* for the following detail parts which are listed for your ready reference.

Part No.	Description	No. Required
436840	Cylinder and piston assembly	1
333289	Camshaft driving chain	1
341594	Camshaft sprocket	1
304265	Crankshaft sprocket	1
436141	Cylinder head	1
304267	Motor gear cover	1
395658	Motor front end plate	1
324552	Motor front end plate gasket	1
436801	Motor flywheel housing	1
403105	Motor cylinder oil passage connecting tube tee	1

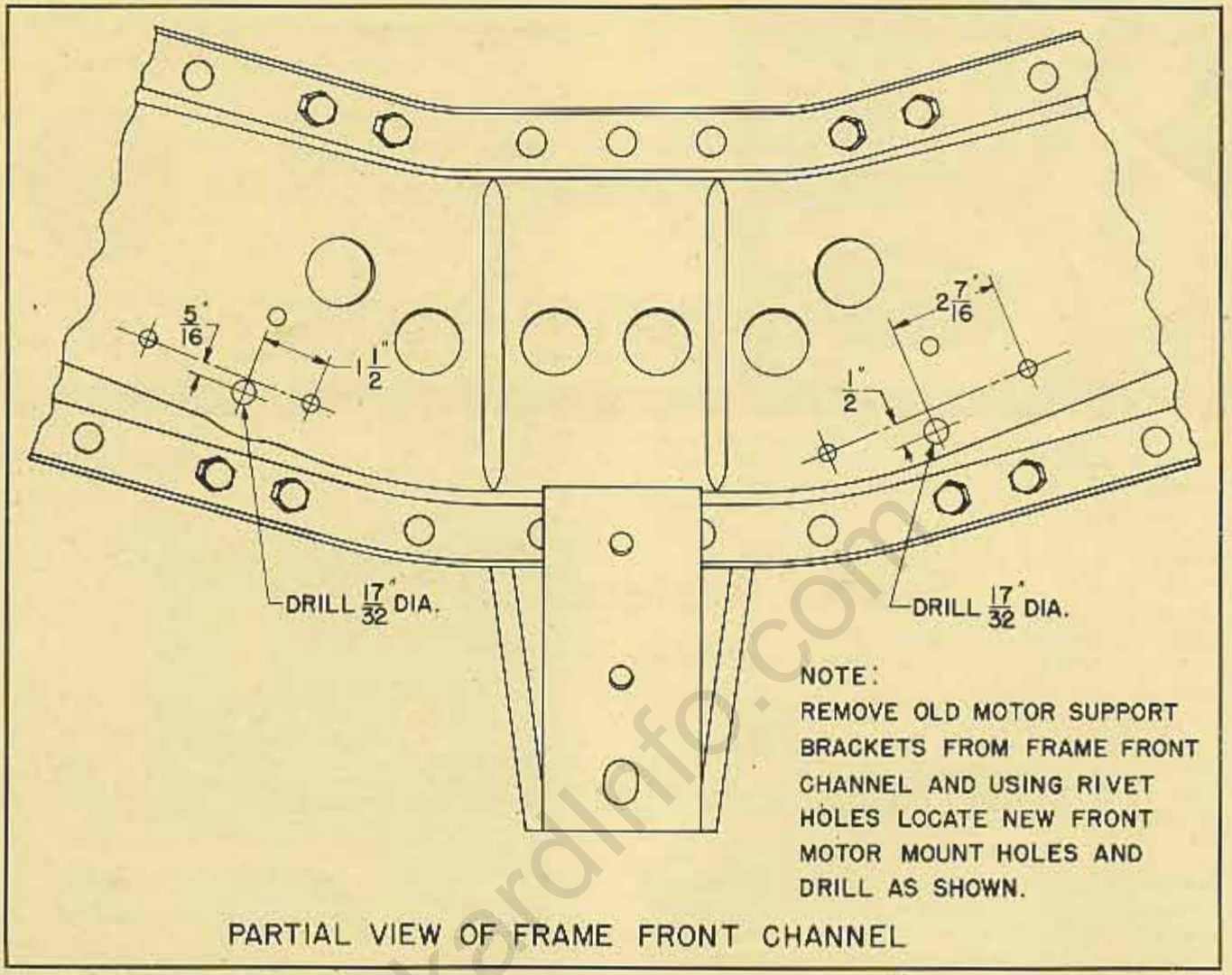
The engine assembly (stripped) is available at the parts warehouse and may be ordered under Part Number 436815. The engine replacement attaching parts kit is listed under Part Number 436818 and must be ordered separately as it is not included with the stripped engine.

The attaching parts kit consists of the following parts:

Part No.	Description	No. Required
436794	Clutch relay lever to fly wheel housing pivot plate (special)	1
G100124	Screw	1
G117292	Screw	1
436816	Exhaust pipe assembly (special)	1
141535	Exhaust pipe flange gasket	1
403459	Exhaust pipe to flywheel housing bracket lower	1
395662	Motor carburetor assembly	1
348465	Motor carburetor assembly gasket	2
G444038	Motor fuel and vacuum pump gasoline elbow	1
419398	Motor stabilizer cylinder bracket—right	1
419426	Motor stabilizer cylinder bracket to cylinder spacer—left	1
422334	Motor stabilizer cylinder bracket to stabilizer assembly spacer (special)	4
G181340	Motor stabilizer cylinder bracket to stabilizer assembly screw	4
403169	Motor valve cover ventilator tube assembly	1
436817	Motor support front channel assembly	1
300227	Motor support front insulator	2
300226	Motor support front insulator retainer	1
G181333	Screw	2
G115548	Lockwasher	2
304791	Motor vibration damper (less hub and pulley)	1
302594	Motor vibration damper spring	6
304309	Motor vibration damper spring plug	6
G181514	Motor vibration damper assembly screw (special)	1
G103326	Lockwasher ¾	1
436813	Motor vibration damper assembly screw washer (special)	1
300064	Motor vibration damper assembly key	1
348828	Motor cylinder head water outlet flange gasket	1
416481	Motor starter motor assembly	1
G192195	Screw	2
410348	Steering column gearshift idler lever support assembly (special)	1
382953	Radiator hose inlet	1
436819	Motor clutch shaft bearing front (special)	1
237190	Motor fan belt	1
320605	Motor water pump assembly gasket	1
419373	Motor oil filter inlet tube assembly	1
412461	Motor oil filter outlet tube assembly	1
426977	Motor flywheel housing cover	1
418317	Motor flywheel housing cover dowel	2

The following parts are to be transferred from the old engine to the new engine:

1. Vibration damper hub.
2. Motor timing indicator (re-work).
3. Generator and brackets.
4. Water pump and fan pulley.



PARTIAL VIEW OF FRAME FRONT CHANNEL

5. Motor fan (cut ¼" off each fan blade).
6. Fuel pump.
7. Water outlet flange and thermostat.
8. Manifolds and the two long manifold studs.
9. Throttle linkage.
10. Oil pressure sending unit.
11. Clutch throw out lever, throw out bearing, retracting spring and pin.
12. Clutch and transmission.

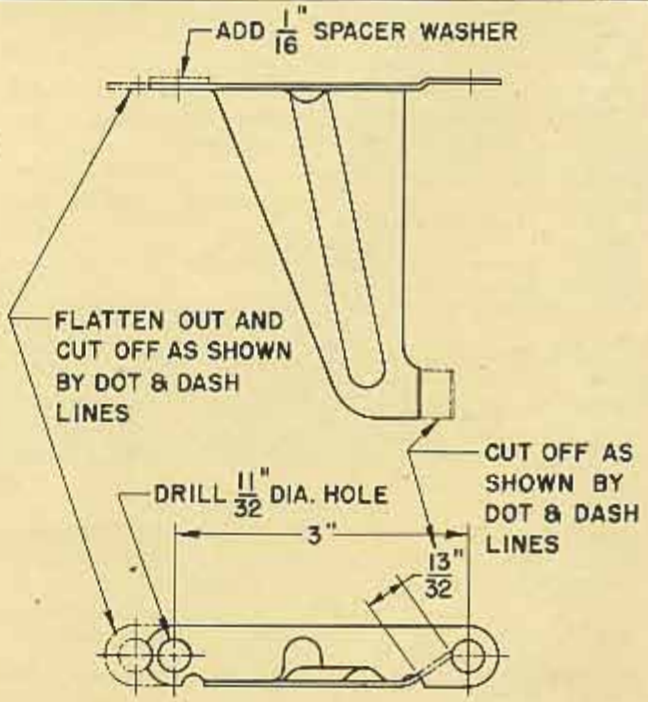
Listed are installation instructions other than a normal engine change:

1. Cut off rivets and remove front motor support brackets from the front cross member.

2. Using the measurements shown on the illustration, center punch and drill two 17/32" holes through the cross member for the front motor support.

3. Remove the hub and pulley from the old vibration damper and install it on the new vibration damper. Be sure that the hub slides freely into the damper before installing the 6 plugs, 6 springs and 6 cap screws.

4. Remove the timing indicator from the old engine and rework it to the dimensions shown on the "Illustration". Be sure to add a 5/16" inside dia. flat washer 1/16" thick at the location shown to align the indicator properly on the new engine. It may be necessary to trim off two sides of the washer so it will fit the chain



REWORK TIMING INDICATOR AS SHOWN

cover. After the indicator is installed on the new engine, bend the outer end upward slightly so it will clear the vibration damper.

5. Install the clutch relay lever to flywheel housing pivot plate and secure with the two screws No. G100124 and No. G117292.

6. Make a template from cardboard ¼" wide the exact shape of the end of one fan blade, using the template as a guide, scribe each blade so that each blade can be cut off the same amount and at the same angle.

7. Install all the parts listed, from the old engine to the new engine. Bend the vacuum pump to manifold tube slightly to make it fit. Install all the parts from the kit to the new engine except—exhaust pipe and gasket, exhaust pipe bracket, motor stabilizer brackets and spacers, valve cover ventilator tube, steering column gearshift idler lever support assembly, and radiator hoses.

8. Install the exhaust pipe in place in the frame. Install the engine assembly. Install the balance of the attaching parts. Attach the steering column gearshift idler lever support assembly No. 410348 to the two rear holes of the left front motor support boss used for the 26th Series engine mount.

9. Install a new motor stabilizer cylinder bracket Part No. 419398 on right side of engine.

Remove the left stabilizer bracket from the old engine and install it with spacer Part No. 419426 on the left side of the engine.

Place the four round spacers Part No. 422334 between the cylinder stabilizer brackets and the stabilizer brackets on the front cross member, install the stabilizer screws Part No. G181340.

After the engine is tightened securely in its proper location, loosen the front cross member stabilizer bracket screws and tap the brackets lightly to get good alignment, then tighten all the stabilizer screws.

10. It may be necessary to loosen the brackets and shift the muffler and tail pipe forward approximately ⅜" so that the exhaust pipe to muffler clamp can be installed properly.

Trunk Lid Water Leaks

24th-25th-26th Series

Water leaks in the trunk compartment are generally caused by wrinkled, damaged or worn weatherstrips, mis-aligned trunk lid or trunk lid opening, broken welds or leaking weatherstrip retainer channel and, in some cases, an improperly installed weatherstrip might cause a leak.

Before water testing for trunk lid leaks, it is suggested that a trunk lid to weatherstrip contact check be made all around the lid with a thin paper card as shown in Figure 1 to see if the lid is bearing tight on the weatherstrip at all points.

To determine the exact water leak locations, it is suggested that a man with a flash light get inside the trunk while it is being water tested to see where the water is coming through.

The first step in aligning trunk lids is to be sure that the two forward corners are properly aligned.

Fig. 1

The procedure should be followed as outlined.

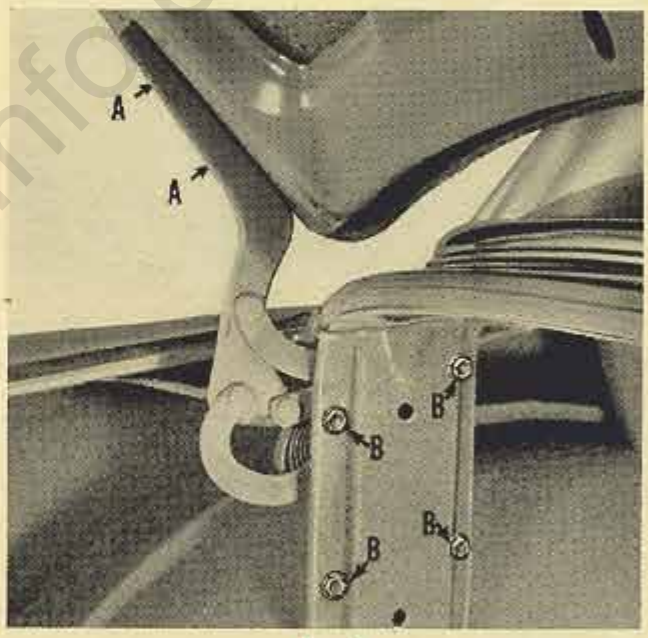


Fig. 2

1. Loosen the cap screws "A", Figure 2, on both hinges and shift the lid forward or back to obtain correct clearance between the lid and the body panel. Retighten the cap screws.
2. Loosen the cap screws "B", Figure 2, and shift the hinges up or down to obtain lid alignment so that the contour of the lid is in line with the body panel. It is easier to have a man inside the trunk to tighten the screws "B", while the trunk lid is closed and held in position.
3. Again check the lid to weatherstrip contact with a thin paper card as shown in Figure 1. If any low places are found along the sides or front, they can be raised with a jack as shown in Figure 3.

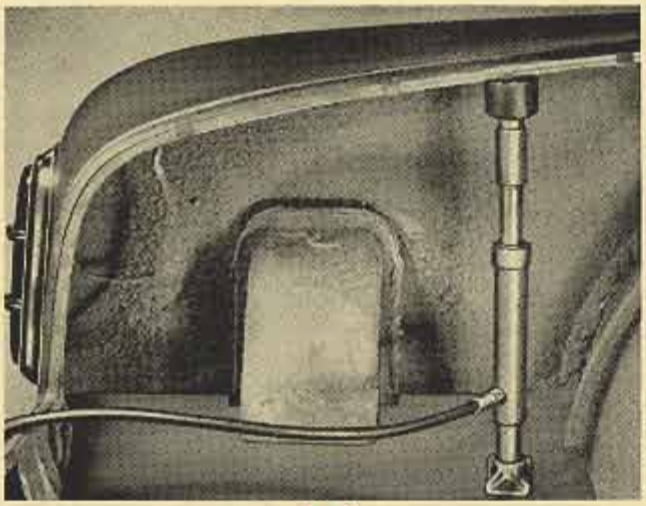


Fig. 3

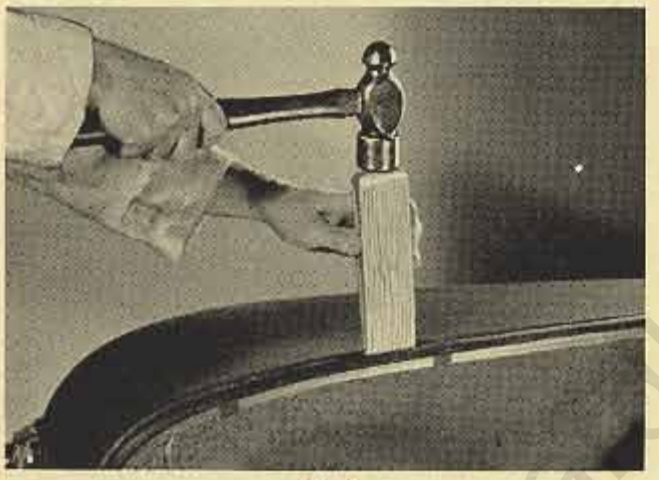


Fig. 4

4. High sections can be driven down with a wood fibre block as shown in Figure 4.

Fig. 5

5. The panel section below the trunk lid can be driven forward or back as shown in Figures 5 and 6 to obtain desired alignment and weatherstrip to trunk lid contact.
6. After the lid to weatherstrip contact is correct all around the lid, the lock striker should be adjusted to obtain easy lock operation.
7. Again water test for leaks, paying particular attention for leaks at the weatherstrip retainer channel. If leaks are found at the channel and the spot welds are not broken, they can be corrected by lifting the weatherstrip and applying heavy weatherstrip cement at the source of the leak.

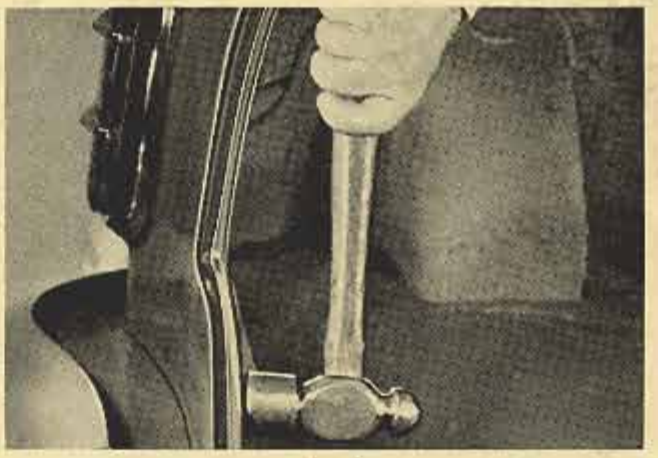


Fig. 6

Note: When testing for water leaks on any part of the car, it is suggested that water from a hose be sprayed on the lower section of the part being tested and the spray gradually worked upward so that the actual location of the leak can be found. If water is sprayed on the upper section first, the water that runs down may enter at some point and travel considerable distance before it enters the car.

Universal Joint Cross and Trunion Bearing

2401-2501-2601

A change was made in the length of the rear universal joint cross and trunion bearings (Universal Products) used with Ultramatic Drive starting with the 25th Series production.

The 2401 Models with Ultramatic Drive were originally equipped in production with rear universal joint crosses Part No. 436087 having an overall length of 2⅞ inches. The removable trunion bearings Part No. 436100 have an overall length of .760" to .770", while the fixed trunion bearings Part No. 436080 have an overall length of .638" to .648".

The 2501 and 2601 Models with Ultramatic Drive are equipped with rear universal joint crosses Part No. 436283 having an overall length of 3⅛ inches. The removable trunion bearings Part No. 436291 have an overall length of .825" to .835", while the fixed trunion bearings Part No. 436287 have an overall length of .700" to .710".

The rear universal joint repair kit Part No. 436279 has the cross and trunion bearings of the longer length and may be used on any of the following models—2401 (Bodies 2462-65-92-95-98) 2501-2601—when equipped with Ultramatic Drive (except with 300 engine).

The individual parts of the kit Part No. 436279 can not be used with the original production short cross as used on the 2401 Models.

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