

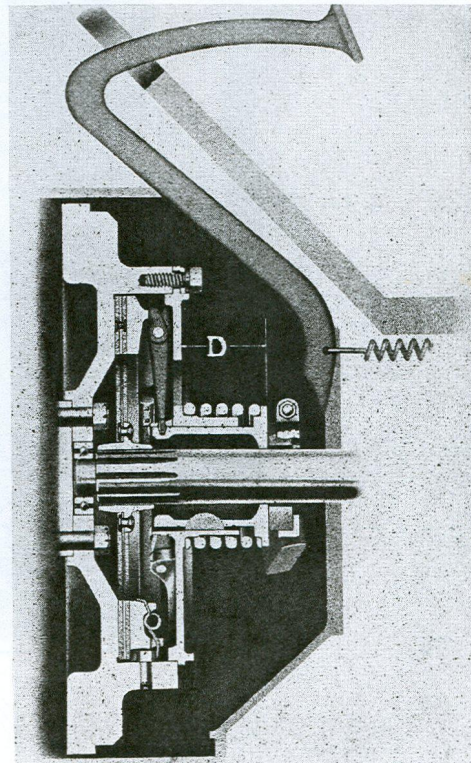
ADJUSTING BORG & BECK

Car Model	Type of Borg & Beck Clutch
Auburn 1926, 4-44	9 QL
Chandler Std. Six, 1927	9 Q
Chandler Spe. Six	10 Q
Chandler Big Six, 1927-1929	10 Q
Chandler Str. 8	10 Q
Chandler Spe. Six, 1928	9 Q
Davis 93, 94	9 Q
Davis 99, Str. 8	10 QL
Diana 1926-1928	10 QL
Dodge Senior	11 QL
Dodge Six	10 QL
Elcar 1925-1927	9 Q
Falcon 1927-1928	9 QL
Gardner 6A, 6B, 8A (1926)	10 QL
Gardner 80, 85	9 Q
Gardner 90, 95	10 QL
Gardner 75	9 Q
Hupp 1926-1929	9 Q Spec.
Kissel 55, 75, 6-55, 8-65	10 QL
Kissel 6-70	9 QL
Kissel 8-80, 8-95, 6-73	10 QL
Kissel 8-90, 8-126	11 QL
Locomobile 8-70	10 QL
Locomobile 8-80, 88	11 QL
Moon Series A, 6-72, 8-80	10 QL
Moon 6-60	9 Q
Nash Light Six	9 Q
Oldsmobile 1925 to 1929	9 Q
Overland Four 91	8 Q
Overland Six	9 QL
Peerless 6-80, 6-81, 6-60, 6-61	10 QL
Peerless 6-70, 6-72, 6-90, 6-91	11 QL
Peerless 8-69, Str. 8	11 QL
Reo Wolverine	10 QL
Rollin	9 Q
Stearns-Knight 1927-1929	11 QL
Stutz AA, BB	11 QL
Stutz M	11 QL
Velie 50, 6-66	9 Q
Velie 60, 6-77	10 Q
Velie 8-88	11 QL
Willys-Knight 70, Std. Spe.	9 QL
Willys-Knight Great Six, 66-A	11 QL

CLUTCH pedal and facing wear adjustments are provided in the Borg & Beck models Q and QL clutches. The former, however, is set at the factory and seldom requires attention as adjustment for facing wear will automatically correct the clutch pedal clearance. When servicing these clutches, the manufacturer states that neither oil nor kerosene should be used and that the facings should be kept DRY. When disassembling, the transmission should be fully supported and should not be permitted to "hang" on the clutch.

As the clutch facings wear, the thrust ring or pressure plate (4) moves closer to the flywheel face and the outer ends of the levers (5) follow. This causes the inner ends of the levers and release sleeve to travel farther toward the transmission, decreasing the pedal clearance under the toe-board, which is the distance the pedal moves away from the toe-board when depressing it before it begins to release the clutch. The clutch adjustment causes the three levers to move higher on the three cams and bear at thicker sections of the pressure plate (4). Thus sleeve travel is decreased and the pedal clearance under the toe-boards increased. Therefore adjusting for facing wear will correct the pedal clearance.

In the Q and QL models of Borg & Beck clutches, the pressure levers are mounted directly on the clutch cover (9) and therefore the entire cover must be turned in the flywheel to change the position of the levers on the cams. To adjust, proceed as follows:



At left: Details of the Borg & Beck type QL clutch. The distance "D" from the rear face of the release sleeve to the clutch cover varies with different type clutches and should always be checked when making adjustments

At right: The clutch pedal when depressed should touch the floor boards as shown in this illustration of a type Q Borg & Beck clutch. Adjusting for facing wear will automatically correct this

Q AND QL CLUTCHES

*Knowing how they operate
aids in servicing these units*

	Distance "D" from rear face of release sleeve to clutch cover	Release sleeve travel
8 Q	1 1/8 in.	1/4 in.
9 Q	1 1/8 in.	1/4 in.
9 Q (Hupp)	1 in.	1/4 in.
10 Q	15/16 in.	3/8 in.
11 Q	15/16 in.	3/8 in.
9 QL	2 3/16 in.	5/16 in.
10 QL	2 3/8 in.	3/8 in.
11 QL	2 3/8 in.	3/8 in.

1. Loosen all holding screws (A) until clutch cover (9) will turn in flywheel.

2. Turn clutch cover about 1/2 in. in the opposite direction to flywheel rotation as indicated by the arrow on the clutch cover.

3. Tighten holding screws (A).

4. Measure distance (D) from the rear face of release sleeve to clutch cover. All measurements must be taken when the clutch is in the operating position. This dis-

tance varies with different types of these clutch models and must conform with the dimensions given in the accompanying table. A wire gage may be made, having a bend at one end corresponding to the given dimension.

If this distance is found to be GREATER than the given dimension, loosen holding screws and turn in the direction OPPOSITE to flywheel rotation. If the distance is LESS than the required dimension, turn the cover plate in the SAME direction as flywheel rotation. After the correct setting has been

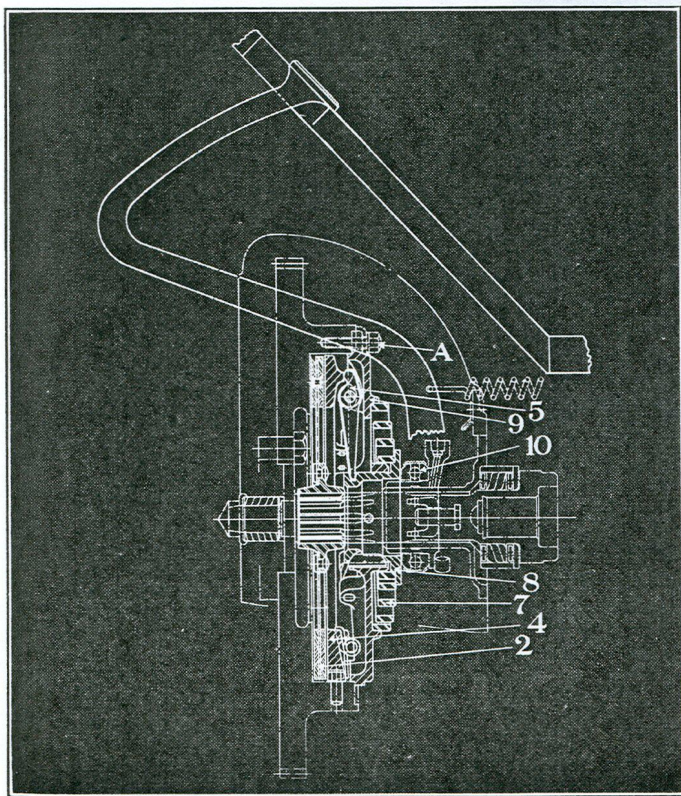
obtained be sure that the holding screws (A) are tightened.

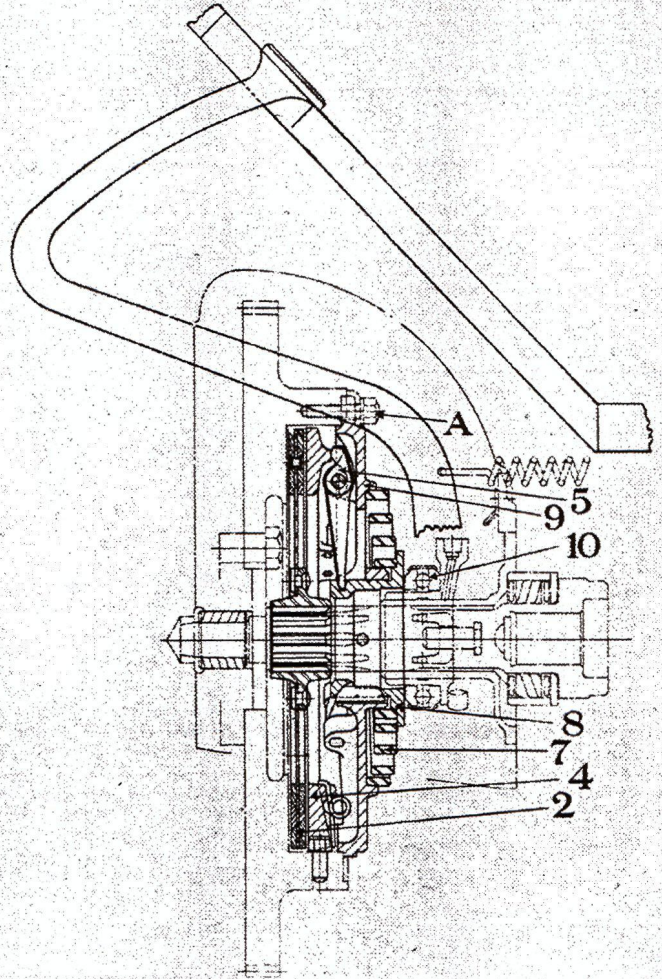
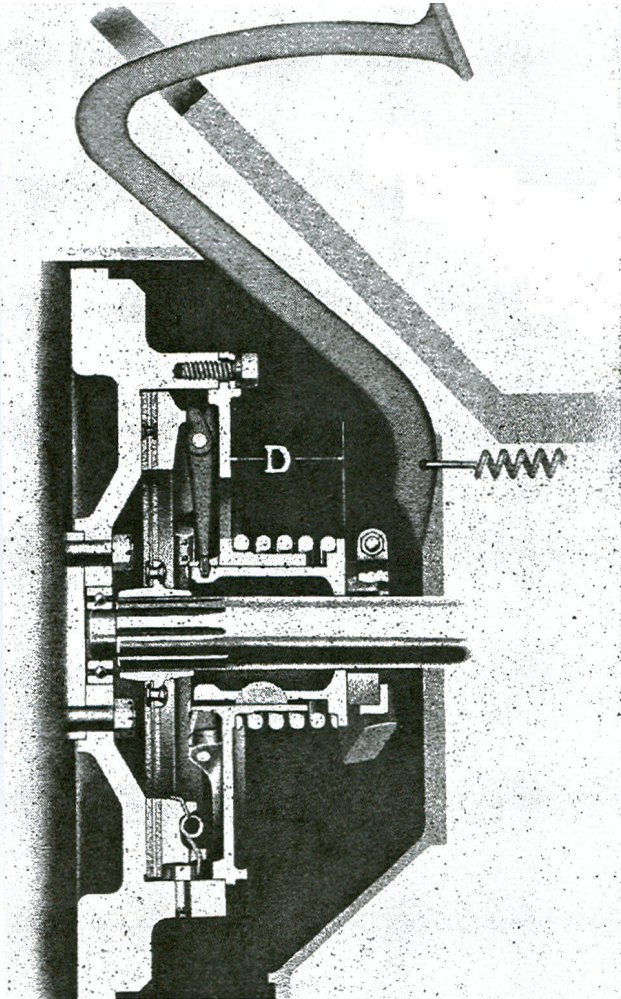
The pedal pad should now come in contact with the toe-board when the pedal is depressed. If the pedal does not move that far, shift the pedal by means of the adjustment. To obtain a full release, the release sleeve should be pushed toward the flywheel from 1/4 to 3/8 in. depending on the type of clutch. The correct distances are given in the accompanying table. If the release sleeve does not travel the distance specified, shift the pedal up, bearing in mind that the pedal pad must touch the floor board as described above.

After the clutch pedal adjustment has been set in the correct position, it should not be changed, because adjusting the clutch for facing wear, automatically restores the clearance at the floor board.

When clutch wear has become so great that it is no longer possible to adjust it, it is necessary to install new lining. The procedure is as follows: After removing the transmission, mark flywheel and clutch housing with corresponding marks, so that the clutch can be reassembled in the same position. Remove all the holding bolts (A) which will permit the clutch cover assembly to be removed from the flywheel. The pressure plate which remained in the flywheel can now be removed, after which the dowel pins must be taken out in order to remove the driven plate assembly.

To further disassemble the clutch, place the clutch cover assembly on the table of an arbor press with the face of the sleeve down and the levers (5) up, (Turn to page 76, please)





Above: Enhanced images

ADJUSTING BORG & BECK CLUTCHES

(Continued from page 57)

the arbor being applied against the end on the clutch cover hub and while being held there, the three lever pins can be driven out and the levers (5) removed. This permits complete disassembly. If the same levers are to be used, they should be marked so that they will go back in the same places from which they came. These levers and pins must be replaced in sets never using old and new levers together.

Inspection of clutch parts should include the following: Facings should have a thickness of not less than 3/32 in. If less than this amount, new facings or a new driven plate assembly should be installed. In addition the assembly should be tested for trueness. A slipping clutch may produce enough heat to destroy the temper and consequently the tension of the springs. It is therefore advisable to install a new spring.

To reassemble the clutch, reverse the procedure given for disassembly. Loosen the adjustment bolts (A) and move them to the left ends of the slots. If another set of holes now appear in the right end of the slots, remove these bolts and place them in the other set of holes and again move them to the left ends of the slots. Do not tighten the adjustment bolts fully until after the clutch has been assembled to the engine and adjusted.

Pack the clutch pilot bearing with a teaspoonful of vaseline. Place driven plate assembly in flywheel, with chamfered end of hub toward the rear. Insert the three dowel pins, squaring the flat sides so that they are parallel with the sides of the slots in the pressure plate. Then place pressure plate in flywheel, making sure that it has a free sliding fit on the pins. Do not file slots if ring sticks.

Check the location of the levers and be sure that they bear near the low points of the three cams on the pressure plate. When the cover plate is lined up with the flywheel, insert an extra shaft or an aligning arbor through sleeve, driven plate hub and into pilot bearing. With the parts thus aligned, insert and tighten the clutch holding screws, then remove the blocks and pull out the aligning shaft. Adjust the clutch as described previously and then install the transmission. Check clutch and clutch pedal adjustment.

The facings in these clutches should be kept dry. Under no circumstance should oil or kerosene be put into the clutch. When removing or installing the transmission care should be exercised so that the transmission does not hang on the clutch. Similar instructions on adjusting and overhauling the other models of clutches made by the Borg and Beck Co., will appear in early issues.

