# Deweze Clutch Pump Kit 700442

**Ford, 6.8L:G, 2006+, Van, A/C, AA Pump, Rear Port**

## Bolt Packages:

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bracket</td>
<td>711343</td>
<td>(Inc. items 10, 11, 12, 14, 15)</td>
</tr>
<tr>
<td>Idler pulley</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Pulley</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Tenslone</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

## Bracket Ass'y.

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>711708</td>
<td>Pump bracket</td>
</tr>
<tr>
<td>2</td>
<td>740339</td>
<td>Idler pulley, machined 2.00&quot; dia.</td>
</tr>
<tr>
<td>3</td>
<td>*</td>
<td>Pump (rear port)</td>
</tr>
<tr>
<td>4</td>
<td>740162</td>
<td>Clutch</td>
</tr>
<tr>
<td>5</td>
<td>711944</td>
<td>Alternator bridge plate</td>
</tr>
<tr>
<td>6</td>
<td>742091</td>
<td>Idler pulley, stamped 2.75&quot; dia.</td>
</tr>
<tr>
<td>7</td>
<td>OEM</td>
<td>Bolt</td>
</tr>
<tr>
<td>8</td>
<td>OEM</td>
<td>Bolt</td>
</tr>
<tr>
<td>9</td>
<td>OEM</td>
<td>Bolt</td>
</tr>
<tr>
<td>10</td>
<td>110180</td>
<td>M10 x 60 x 1.5 Bolt</td>
</tr>
<tr>
<td>11</td>
<td>711072</td>
<td>Idler bushing</td>
</tr>
<tr>
<td>12</td>
<td>112039</td>
<td>M10 x 40 x 1.5 L.H. Bolt</td>
</tr>
<tr>
<td>13</td>
<td>110465</td>
<td>3/8 x 1 1/4 Socket hd. bolt</td>
</tr>
<tr>
<td>14</td>
<td>110484</td>
<td>M6 x 16 x 1.0 Bolt</td>
</tr>
<tr>
<td>15</td>
<td>110204</td>
<td>Shim, .015&quot; thick</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>Wiring connector bracket</td>
</tr>
<tr>
<td>20</td>
<td>110271</td>
<td>3/8 Lock washer, .55 O.D. x .13 thck</td>
</tr>
<tr>
<td>21</td>
<td>742005</td>
<td>Belt/Gates 6K125.10</td>
</tr>
</tbody>
</table>

## Issue Date

7-11-05

## Revision Date

2-11-13

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**FIG. 1**

**BELT DIAGRAM**

REPLACE OEM IDLER WITH DEWEZE IDLER 742091 AND TWO SHIMS 110204. REUSE OEM BOLT.

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A, B, C... Denotes bolt holes in engine to locate corresponding holes in Pump Brkt.
FIG. 2
ELECTRICAL CONNECTOR MOUNTING BRACKET

FACTORY CONFIGURATION

AFTER MODIFICATION

.CUT HERE

.DISCARD THIS SECTION

.FIG. 3
CONNECTOR BRACKET LOCATION

14
19
1

FIG. 4
BELT DIAGRAM

HYD. PUMP
DEWEZE IDLER
OEM TENSIONER
OEM IDLER
WATER PUMP
A/C CRANKSHAFT

21. BELT

FIG. 5
MODIFY ALTERNATOR BRACKET 2006-2008

CUT CORNER OFF HERE

FIG. 6
MODIFY ALTERNATOR BRACKET 2009

CUT BRACKET HERE

DISCARD THIS PORTION

.312" DRILL

.50"

1.00"
1. Disconnect the battery.

2. Remove the OEM belt. Remove the fan shroud and fan.

3. Remove the air cleaner housing.

4. Remove the OEM bracket over the top of the alternator. On 2006-2008 trucks, cut the corner off for clearance for the pump bracket as shown in Fig. 5. Reinstall this bracket with the OEM bolts. On 2009 and later trucks, cut the bracket along the dotted line and discard the shaded portion as in Fig. 6. Reinstall this bracket. Place the bridge plate (5) on top of the alternator bracket (Location D) and over to where the removed portion of the OEM bracket was attached (Location E), using the OEM bolts.

5. Pull the two wiring harness connectors from the mounting bracket. Remove the nut and bracket from the engine. Cut off the bracket and drill a new hole as shown in Fig. 4. Replace the two connectors back in the bracket. Turn the bracket so it is lying down, pointing to the rear and the connectors are standing up. Attach the bracket and ground strap to the intake manifold at Location I with the M6 x 16 bolt (18) as shown in Fig. 3.

6. Remove the OEM idler at Location C and replace it with the stamped steel idler (6), spacing it out with two .015” shims (15), and using the OEM bolt.

7. Hold pump (5) onto back of bracket (1) and clutch hub (8i) onto front of bracket, making sure anti-rotation pin (J) on front of hub is on top. Place two 3/8 x 1 1/4 socket head bolts (13) and 3/8 high collar lock washers (20) through pump, through mounting plate and thread into hub. Torque to 20 lb-ft.

8. Slide coil (8a) over hub, aligning hole in the back plate of coil with the anti-rotation pin (J) in the hub. The wires from the coil should be on the
same side as the pin (J). Install large snap ring (8b) to hold coil in place.

**NOTE:** THE BEVEL ON BOTH SNAP RINGS MUST FACE AWAY FROM THE PUMP. REFER TO INSTRUCTION SHEET FOR THE CLUTCH FOR CORRECT INSTALLATION OF SNAP RINGS.

9. Slide clutch pulley (8c) onto hub. Install small snap ring (8d) to hold pulley in place.

10. Place the key (5) onto the pump shaft. Slide the hub/armature (8f) onto the pump shaft aligning the keyways.

**NOTE:** SET THE AIR GAP BETWEEN THE HUB/ARMATURE AND THE PULLEY USING SHIMS (8e) ACCORDING TO INSTRUCTION SHEET FOR CLUTCH.

11. Thread bolt (8g) and lock washer (8h) into pump shaft. Torque to value in clutch instruction sheet.

12. Install the fittings on the pump.

13. Attach the idler pulley (2) to the boss on the front of the pump mount bracket (1) with the M10 x 40 bolt (12). Torque to 19-25 ft-lb.

14. Attach the pump mount bracket (1) to the engine with the OEM stud bolt (9) at location A and the M10 x 60 bolt at location B. Torque these bolts to 19-25 ft-lb.

15. Install the serpentine pump drive belt (21) per Fig. 4.

16. Connect the battery.

17. Run the engine and check for any clearance or alignment problems. Adjust as needed.
Installing the Warner AA clutch

Hub, Coil and Rotor/Pulley are preassembled by Warner. Armature is shipped loose along with Hardware Kit (consisting of center bolt, washer and shims)

Step 1:

Slide the Hub/Coil/Rotor/Pulley Assembly onto the pump shaft and secure to pump face using pump manufacturer supplied bolts through the two bolt holes.

Step 2:

Place two shims onto pump shaft on top of rotor face. Slide armature onto shaft and measure air gap between the Armature and Rotor. Repeat this step and add shims as needed (more or less than 2) to acquire 0.02 – 0.04” air gap between the rotor and armature.
Check air gap at 3 locations 120° apart.

Step 3:

Fasten center bolt and washer to face of pump shaft and tighten to 25 ft. lbs. torque.

Failing to set the air gap correctly will cause premature pump failure due to axial load placed on the pump shaft.
Installing the Ogura AA clutch

Hub, Coil and Rotor/Pulley are preassembled by Ogura. Armature is shipped loose along with Hardware Kit (consisting of center bolt, washer and shims)

Step 1:

Slide the Hub/Coil/Rotor/Pulley Assembly onto the pump shaft and secure to pump face using pump manufacturer supplied bolts through the two bolt holes.

Step 2:

Place two shims onto pump shaft on top of rotor face. Slide armature onto shaft and measure air gap between the Armature and Rotor. Repeat this step and add shims as needed (more or less than 2) to acquire 0.3 to 0.6mm (.011” to .023”) air gap between the rotor and armature. Check air gap at 3 locations 120° apart.

Step 3:

Fasten center bolt and washer to face of pump shaft and tighten to 25 ft. lbs. torque.

Failing to set the air gap correctly will cause premature pump failure due to axial load placed on the pump shaft.