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| 1—Plug (8 used) | 11—Discharge Valve (8 used) | 20—Race |
| 2—O-Ring (8 used) | 12—Spring | 21—Cone |
| 3—Inlet Valve (8 used) | 13—Guide | 22—Bearing Cup |
| 4—Housing | 14—Stop | 23—Shim |
| 5—Pump Piston (8 used) | 15—Discharge Valve | 24—Cap Screw |
| 6—Spring (8 used) | 16—Spacer | 25—O-Ring |
| 7—Sheath (8 used) | 17—Thrust Washer | 26—Plug |
| 8—O-Ring (8 used) | 18—Pump Shaft | 27—Quad Packing |
| 9—Piston Plug (8 used) | 19—Roller Bearing | 28—Oil Seal |
| 10—Seat (8 used) | | 29—Snap Ring |

Fig. 35—Exploded View of 3.0 Cu. In. Main Pump

NOTE: On 4.0 cu. in.-pumps two additional spacers are used between the thrust washers and race.

4. Place needle bearing race (B, Fig. 34) over shaft cam. Install needle bearings.

IMPORTANT: Use **ONLY** John Deere Hy-Gard Transmission and Hydraulic Oil on needle bearings.

5. Install remaining spacer(s), thrust washer, and roller bearing.

6. Install pump shaft assembly in pump housing.

7. Place stroke control valve housing assembly with adjusting shims on pump housing. Tighten cap screws to 85 ft-lbs (115 Nm) (11.5 kgm).

8. Check for 0.001-0.003 in. (0.03-0.08 mm) pump shaft end play as instructed earlier in this Group.

9. Add or deduct shims to obtain correct end play.

10. Install piston assemblies being sure proper piston goes back into its respective bore.

11. Torque piston plugs to 100 ft-lbs (136 Nm) (13.6 kgm).