4R/5R44E, 4R/5R55E

PART NUMBERS 37947-40K, 37947-TL40

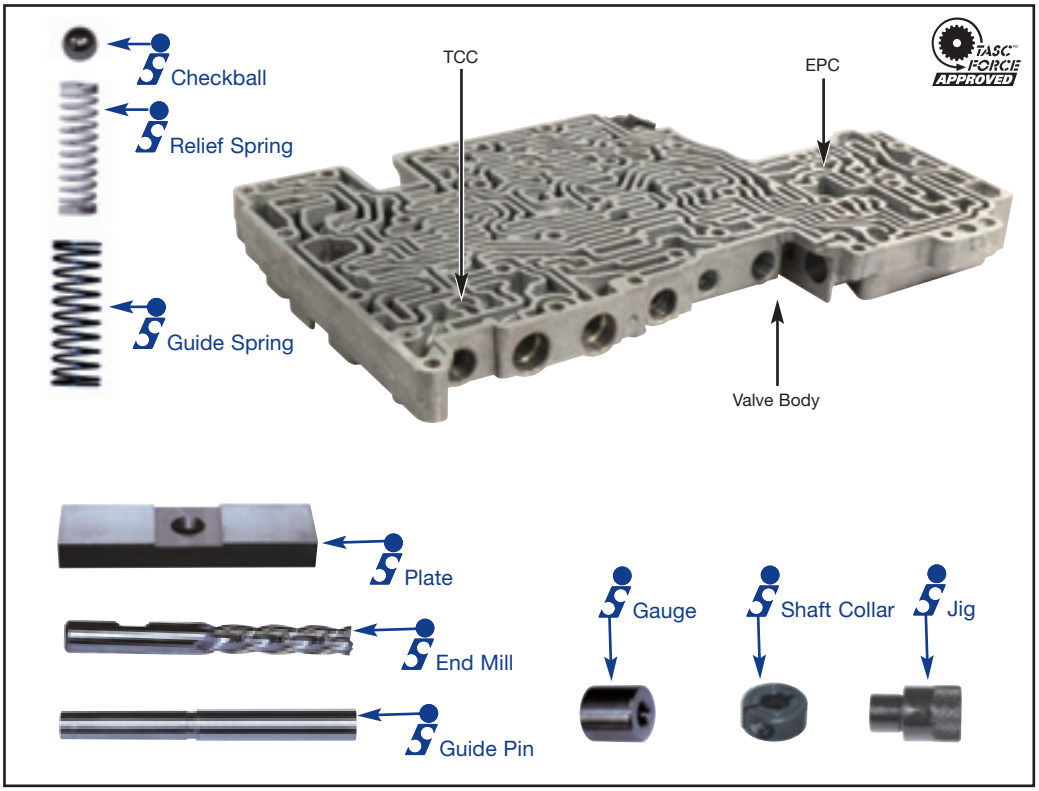
EPC & TCC Relief Valve Kit

37947-40K

1 Relief Spring
1 Guide Spring
1 Checkball

37947-TL40

1 End Mill
1 Shaft Collar
1 Plate
1 Jig
1 Guide Pin
1 Gauge

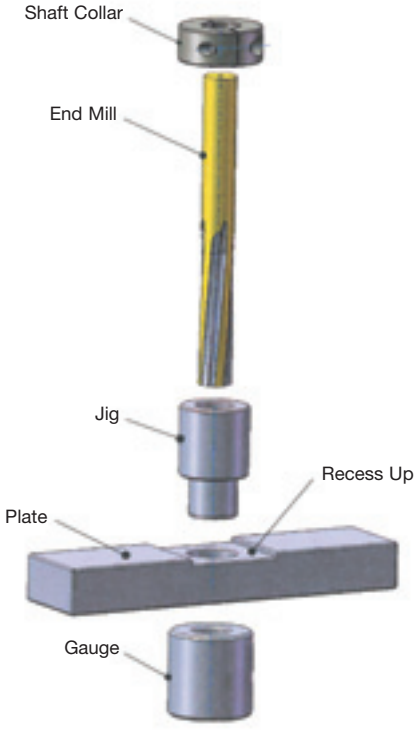


SET-UP AND MILLING

Set up proper height for end mill cut:

1. On a bench, stack .900" height gauge, plate and jig as shown in Figure 1.
2. Insert end mill, cutting edge down, into this assembly until it is flush with the bench.
3. Place and secure shaft collar on end mill shank so that it sits flush on top of the jig. This will ensure the end mill cuts to a consistent depth of .900".

Figure 1



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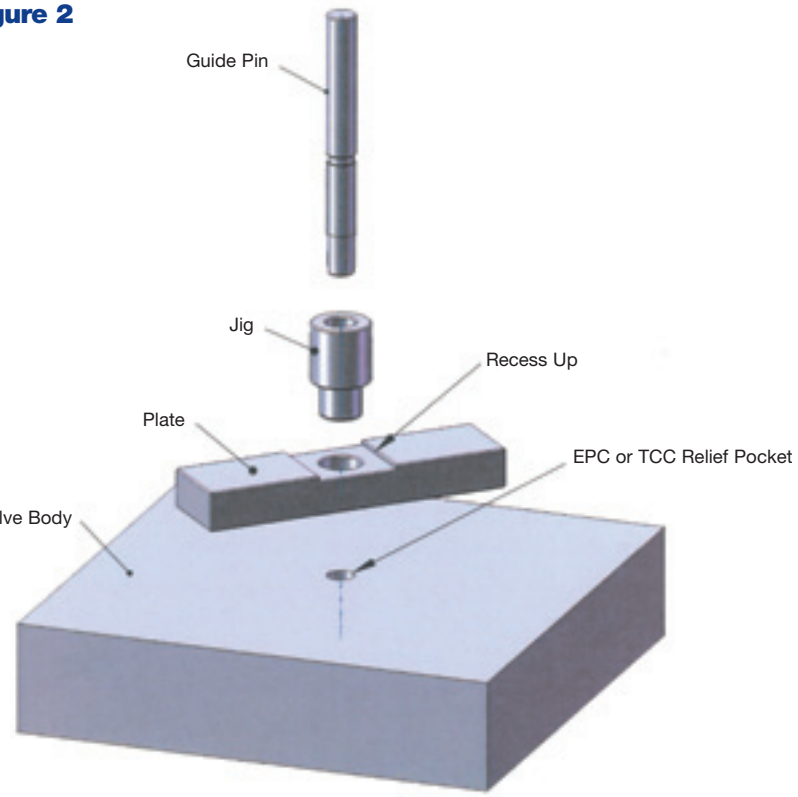
Properly align valve body for milling:

1. Place the plate on the valve body surface, over the EPC or TCC pocket to be cut as shown in Figure 2.
2. Insert the jig into the plate.
3. Insert the guide pin through the jig and plate, and into the EPC or TCC pocket to be cut.
4. Once aligned, clamp the plate securely to the valve body.
5. Remove guide pin.

Milling valve body:

1. After setting mill cut height and aligning the valve body for milling, use a drill press or hand-held drill to machine the casting pocket to .900" depth through the jig and plate.
2. Remove all debris.

Figure 2



INSTALLATION

1. Insert the larger spring (Ø.343"; .024" wire diameter) into the milled casting pocket.
2. Insert the smaller white spring (Ø.270"; .032" wire diameter) into the casting pocket, ensuring it nestles inside the larger spring.
3. Place the checkball on top of the inner spring.

FINAL VERIFICATION STEPS

1. EPC and/or TCC relief pressure should be verified after installation of the relief valve kit. The relief pressure should be between 110-128 psi.
2. Relief pressures may be tuned by altering the depth of pocket or length of spring.

- Altering pocket depth results in approximately 5 psi change for every .010" depth increment. Deeper decreases pressure, more shallow increases pressure.
- Length of spring may be ground down slightly to reduce pressure. Shortening by .010" will result in approximately 5 psi pressure decrease.
- If the pocket is milled too deep, a .025" thick No. 4 washer may be used for shimming. This will also raise the relief pressure by approximately 12 psi.

Note: Do not exceed .920" pocket depth as the casting may crack from the spring load.

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