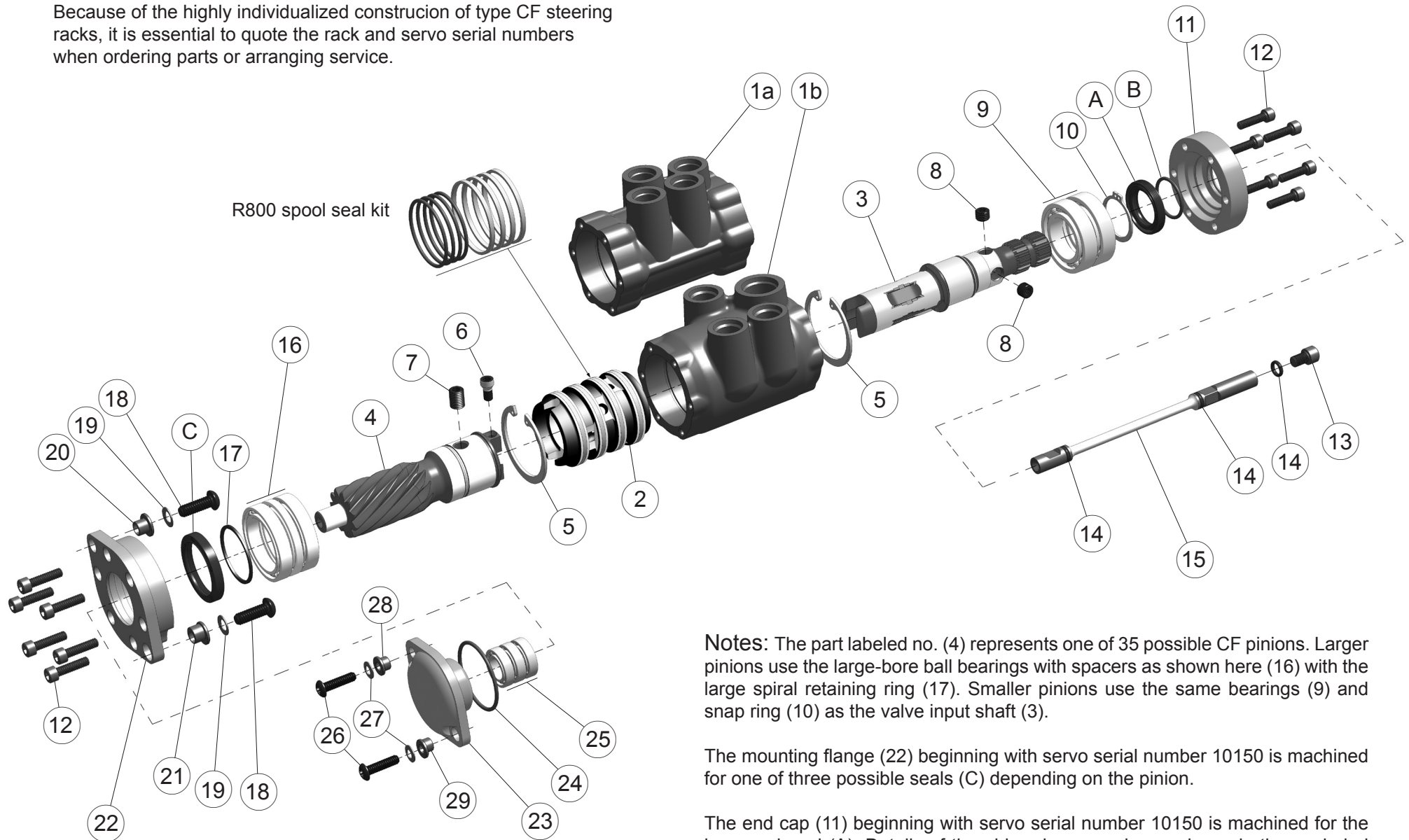


CF servo exploded view (applies to integral servos assembled with CF racks)

Revised 1 Dec 2018

Because of the highly individualized construction of type CF steering racks, it is essential to quote the rack and servo serial numbers when ordering parts or arranging service.



Notes: The part labeled no. (4) represents one of 35 possible CF pinions. Larger pinions use the large-bore ball bearings with spacers as shown here (16) with the large spiral retaining ring (17). Smaller pinions use the same bearings (9) and snap ring (10) as the valve input shaft (3).

The mounting flange (22) beginning with servo serial number 10150 is machined for one of three possible seals (C) depending on the pinion.

The end cap (11) beginning with servo serial number 10150 is machined for the improved seal (A). Details of the old and new seals are shown in the exploded view of the **inline servo**. Both the mounting flange and the end cap supersede previous designs. These will be updated in the course of a factory rebuild and identified by adding the suffix "N" to the serial number.

Servo parts list (applies to integral servos assembled with CF racks)

Revised 1 Dec 2018

Callout	Part number	Description
1a	V600	Housing for VA800 series
1b	V700	Housing for VA900 series
2	V601	Valve spool
	V601C	
	R800	Spool seal kit
3	V570-50-1	Valve input shaft
	V570-50-2	
	V570-50-2C	
	V570-55	
<i>(Note: the spool and input shaft together comprise a Valve Assembly and are sold as a unit.)</i>		
4	CF00-571-306	Pinion, 6T, straight, 1.57 (40mm) in 360°
	CF00-571-307	Pinion, 7T, straight, 1.83 (46mm) in 360°
	CF00-571-308	Pinion, 8T, straight, 2.09 (53mm) in 360°
	CF00-571-309	Pinion, 9T, straight, 2.36 (60mm) in 360°
	CF00-571-310	Pinion, 10T, straight, 2.62 (67mm) in 360°
	CF00-571-311	Pinion, 11T, straight, 2.88 (73mm) in 360°
	CF00-571-312	Pinion, 12T, straight, 3.14 (80mm) in 360°
	CF12-571-306	Pinion, 6T, 12° LH helix, 1.57 (40mm) in 360°
	CF12-571-307	Pinion, 7T, 12° LH helix, 1.83 (46mm) in 360°
	CF12-571-308	Pinion, 8T, 12° LH helix, 2.09 (53mm) in 360°
	CF12-571-309	Pinion, 9T, 12° LH helix, 2.36 (60mm) in 360°
	CF12-571-310	Pinion, 10T, 12° LH helix, 2.62 (67mm) in 360°
	CF12-571-311	Pinion, 11T, 12° LH helix, 2.88 (73mm) in 360°
	CF12-571-312	Pinion, 12T, 12° LH helix, 3.14 (80mm) in 360°
	CF12R-571-306	Pinion, 6T, 12° RH helix, 1.57 (40mm) in 360°
	CF12R-571-307	Pinion, 7T, 12° RH helix, 1.83 (46mm) in 360°
	CF12R-571-308	Pinion, 8T, 12° RH helix, 2.09 (53mm) in 360°
	CF12R-571-309	Pinion, 9T, 12° RH helix, 2.36 (60mm) in 360°
	CF12R-571-310	Pinion, 10T, 12° RH helix, 2.62 (67mm) in 360°
	CF12R-571-311	Pinion, 11T, 12° RH helix, 2.88 (73mm) in 360°
	CF12R-571-312	Pinion, 12T, 12° RH helix, 3.14 (80mm) in 360°

Callout	Part number	Description
4	CF20-571-306	Pinion, 6T, 20° LH helix, 1.57 (40mm) in 360°
	CF20-571-307	Pinion, 7T, 20° LH helix, 1.83 (46mm) in 360°
	CF20-571-308	Pinion, 8T, 20° LH helix, 2.09 (53mm) in 360°
	CF20-571-309	Pinion, 9T, 20° LH helix, 2.36 (60mm) in 360°
	CF20-571-310	Pinion, 10T, 20° LH helix, 2.62 (67mm) in 360°
	CF20-571-311	Pinion, 11T, 20° LH helix, 2.88 (73mm) in 360°
	CF20-571-312	Pinion, 12T, 20° LH helix, 3.14 (80mm) in 360°
	CF20R-571-306	Pinion, 6T, 20° RH helix, 1.57 (40mm) in 360°
	CF20R-571-307	Pinion, 7T, 20° RH helix, 1.83 (46mm) in 360°
	CF20R-571-308	Pinion, 8T, 20° RH helix, 2.09 (53mm) in 360°
	CF20R-571-309	Pinion, 9T, 20° RH helix, 2.36 (60mm) in 360°
	CF20R-571-310	Pinion, 10T, 20° RH helix, 2.62 (67mm) in 360°
	CF20R-571-311	Pinion, 11T, 20° RH helix, 2.88 (73mm) in 360°
	CF20R-571-312	Pinion, 12T, 20° RH helix, 3.14 (80mm) in 360°
5	V641	Housing snap ring (2)
6	V572	Spool drive bolt
7	V575A	Anchor screw, 5/16-24 x 5/16 w/ machined end
	V576A	Anchor screw, 5/16-24 x 1/2 w/ machined end
8	V575B	Centering adjustment screw, 5/16-24 x 1/4 cup point (2)
<i>(Note: when changing a torsion bar it is recommended to also replace both V575B screws.)</i>		
9	V640	Ball bearing (2 on input shaft; 2 on 306 & 307 pinion)
10	V574	Shaft snap ring (1 on input shaft; 1 on 306 & 307 pinion)
11	V580	End cap (1)
A	V581*	Shaft seal (*V581-1 when used on 306 & 307 pinion)
B	V581	Outer O-ring (used on end cap only)
<i>(Note: V581 kit for end cap includes both A and B)</i>		
12	V350	Socket head cap screw, #10-24 x 3/4 (12)
13	TB353	Torsion bar plug screw, 1/4-28 x 3/8 (2)
14	TB000	O-ring

Callout	Part number	Description
15	TB180-CF	Torsion bar
	TB185-CF	(Note: torsion bars have TB000 installed.)
	TB190-CF	
	TB195-CF	
	TB200-CF	
	TB205-CF	
	TB210-CF	
	TB215-CF	
	TB220-CF	
	TB225-CF	
16	V642	Ball bearing pair with spacers (for 308, 309, 310, 311 & 312 pinions)
17	V643	Spiral retaining ring (for 308, 309, 310, 311 & 312 pinions)
18	NPN	Button head Torx IP27 drive, 1/4-20 x 3/4, (2)
19	CF350A	Belleville spring lock washer, 1/4 (2)
20	CF155B	Concentric bushing
21	CF155A	Eccentric bushing
22	CF153-1	Servo mounting flange for 306 & 307 pinions
	CF153-2	Servo mounting flange for 308 & 309 pinions
	CF153-3	Servo mounting flange for 310, 311 & 312 pinions
C	V581-1	Pinion seal for 306 & 307 pinions
	V581-2	Pinion seal for 308 & 308 pinions
	V581-3	Pinion seal for 310, 311 & 312 pinions
23	CF154	Bearing cover (all CF racks)
24	CF152	Cover O-ring
25	CF331	Ball bearing stack (set of 3)
26	NPN	Button head Torx IP25 drive, #10-24 x 3/4, (2)
27	CF350B	Belleville spring lock washer, #10 (2)
28	CF156B	Eccentric bushing, minor
29	CF156A	Eccentric bushing, major

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