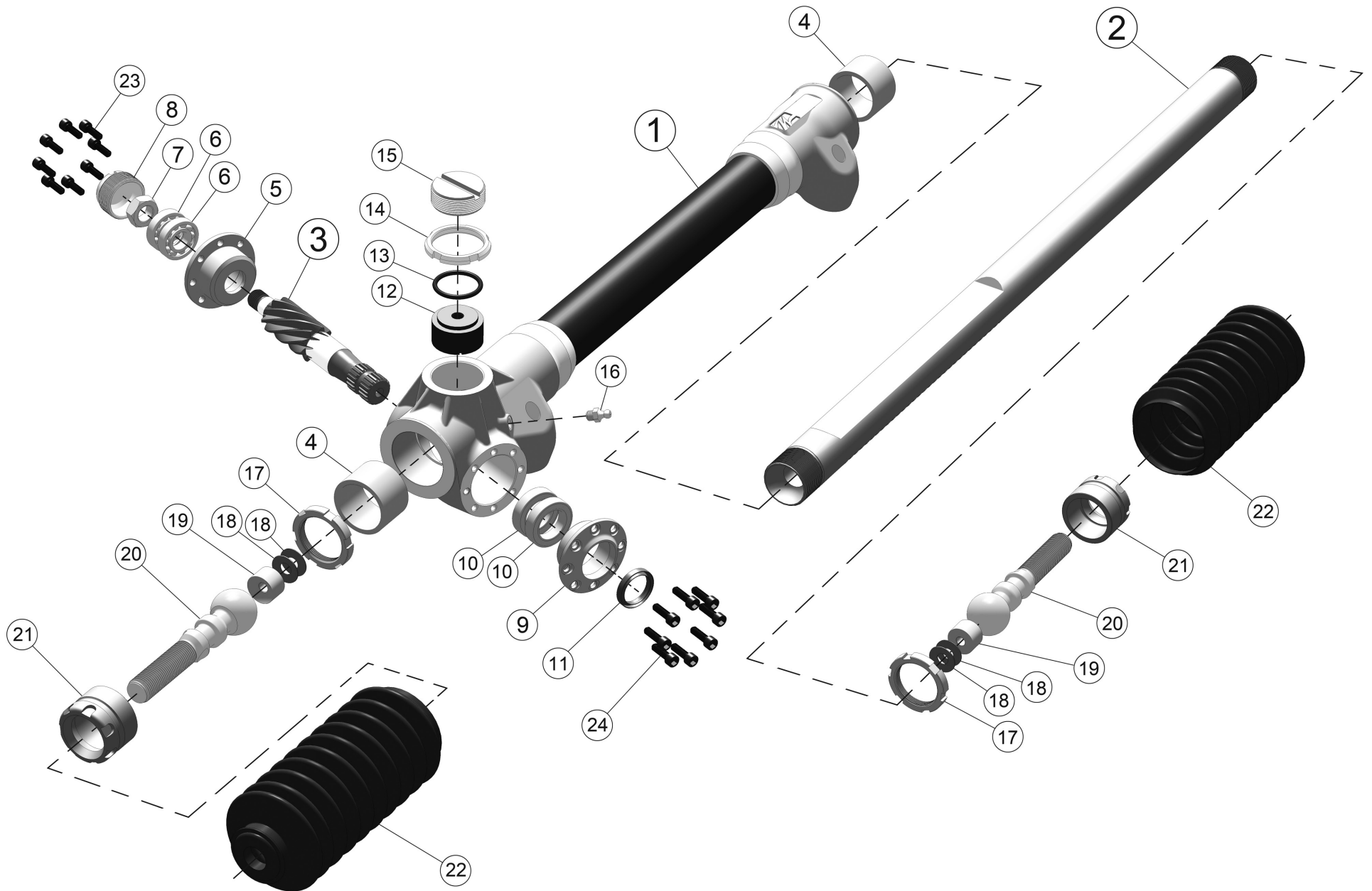


Type JL Heavy Duty Manual Rack and Pinion exploded view

(the assembly sequence is the same for all models, right hand or left hand)



Type JL parts list

Dwg no.	Part no.	Description
1	JL100	Short housing for LH front steer or RH rear steer
	JL100R	Short housing for RH front steer or LH rear steer
<i>The short housing is a one-piece casting made for rackshafts 16.25 through 18.25 long.</i>		
	JL100-XXXX	Long housing for LH front steer or RH rear steer
	JL100R-XXXX	Long housing for RH front steer or LH rear steer
<i>The long housing is a 3-piece made-to-order assembly and is specified by a four-digit number corresponding to the length in inches of the rackshaft it is made for; e.g., the standard housing for a 27.25 inch LH front steer rack would be JL100-2725.</i>		
2	JL230-8-XXXX	Rackshaft for 8 tooth pinion (2.09 in./53mm per turn)
	JL230-9-XXXX	Rackshaft for 9 tooth pinion (2.36 in./60mm per turn)
	JL230-10-XXXX	Rackshaft for 10 tooth pinion (2.62 in./67mm per turn)
<i>The rackshaft is specified by a four-digit number corresponding to its length in inches ("rack length" is the distance between spherical centers). Type JL rackshafts work with both left and right hand drive. Note: JL rackshafts, although very similar, will not work in a GE/HE/GL/HL steering rack.</i>		
3	GE308	Pinion, 8T, left hand spiral (2.09 in./53mm per turn)
	GE309	Pinion, 9T, left hand spiral (2.36 in./60mm per turn)
	GE310	Pinion, 10T, left hand spiral (2.62 in./67mm per turn)
	GE308R	Pinion, 8T, right hand spiral (2.09 in./53mm per turn)
	GE309R	Pinion, 9T, right hand spiral (2.36 in./60mm per turn)
	GE310R	Pinion, 10T, right hand spiral (2.62 in./67mm per turn)
<i>A housing with R in its part number requires a right hand pinion. The teeth of a right hand gear twist clockwise away from you like the threads of a screw; a left hand gear twists counterclockwise.</i>		
4	JL101	Rack bushing (2), 1.5 OD x 1.25 ID x 1.0 L
5	JL500	Eccentric bearing adjuster, thrust side ("large cap")
6	GE340	Thrust ball bearing (2), #R8 open
7	GE331	Pinion locknut, 1/2-20, thin height, elastic insert type
8	GE341	Bearing retainer plug
9	JL400	Eccentric bearing adjuster, radial side ("small cap")

Dwg no.	Part no.	Description
10	GE321	Radial ball bearing (2), #6804 sealed
11	GE323	Grease seal
12	GE102	Snubber
13	GE103	Snubber O-ring, #214, Buna-N 70 duro
14	VH587	Snubber lock nut
15	JL104	Snubber adjusting screw
16	NPN	Zerk fitting, 1/4-28, straight
17	M511	Monoball locking nut
18	M503	Belleville spring washer (2 per monoball)
19	M505	Preloader (2 per monoball)
20	M512	Ball stud, 5/8-18 RH thread
	M513	Ball stud, 3/4-16 RH thread
	M514	Ball stud, 14mm x 1,5 RH thread
21	M510	Monoball adjuster
22	M360	Boot
23	NPN	#10-24 x 5/8 SHCS (8)
24	NPN	#10-24 x 1/2 SHCS (8)

Note: The mounting holes in JL racks are M14 (14mm x 2.0) thread and the bolts used should have a minimum of 25mm (one inch) engagement in the casting.

Do not attempt to install a JL rack using 1/2-13 bolts from a GE/HE rack!