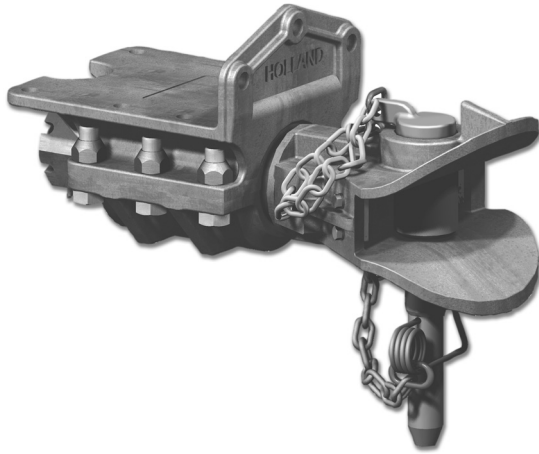


INSPECTION AND REBUILD PROCEDURES



RK-T-551

For PH-990ST71 Pintle Hooks

DISASSEMBLY AND INSPECTION

Please read and understand all instructions before attempting to disassemble or assemble the pintle hook. Clean and inspect the upper housing (*Item 10*) and the lower housing (*Item 15*). Check for cracks along the lower portion of the upper housing as shown in **FIGURE 1**. Next, check for cracks along the side of the lower housing shown in **FIGURE 1**.

If cracks are found in either the upper or lower housings, remove the pintle hook. Disassemble and check for cracks on the pintle hook (*Item 1*) as shown in **STEP 6**.

If cracks are found on both the upper and lower housings, discard the pintle hook assembly and replace with a new PH-990ST71.

If cracks are found on only one of the housings **and** the pintle hook, discard the pintle hook assembly and replace with a new PH-990ST71.

If cracks are found on just one of the three components (housings or pintle hook), replace the cracked component.

If no cracks are found in the upper or lower housings, proceed with the rebuilding process as follows:

1. Support the lower housing (*Item 15*) with a floor jack, applying enough force to adequately secure the lower housing while the bolts are removed (see **FIGURE 2**).
2. Remove the six (6) nuts (*Item 9*) and six (6) bolts (*Item 16*) that secure the upper and lower housings together (see **FIGURE 2**) and discard.

FIGURE 1

UPPER and LOWER HOUSINGS EXAMINE FOR CRACKS

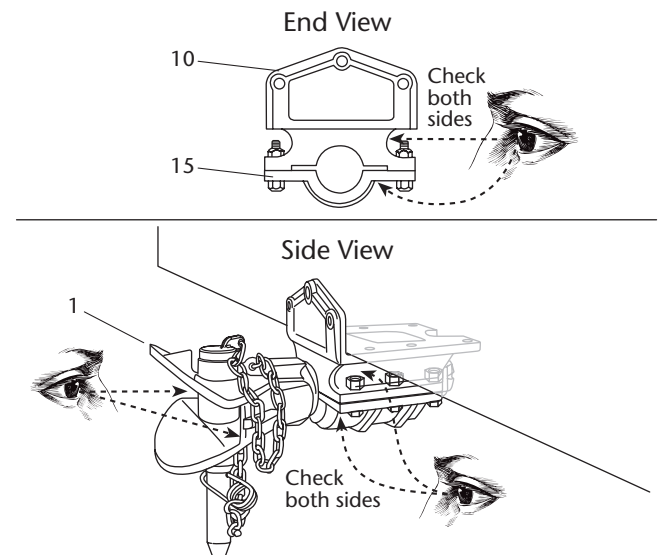
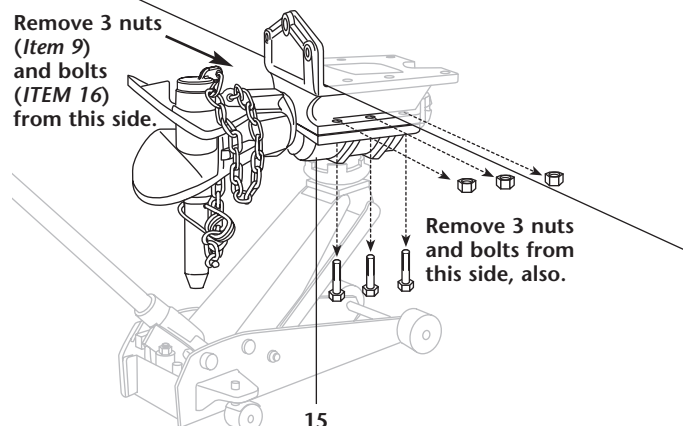
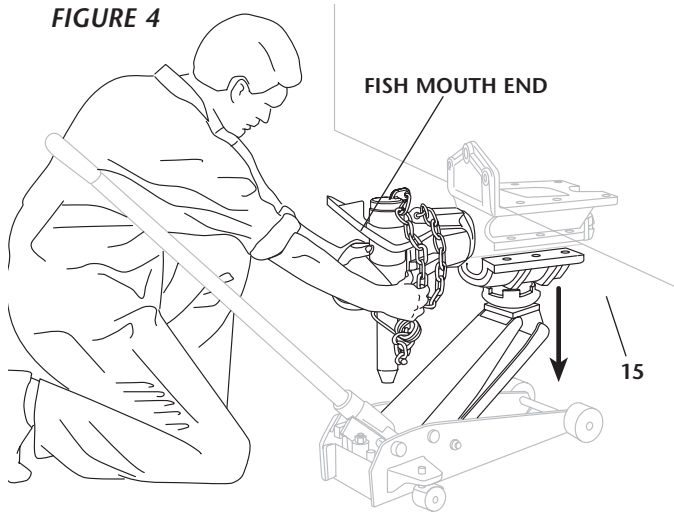


FIGURE 2



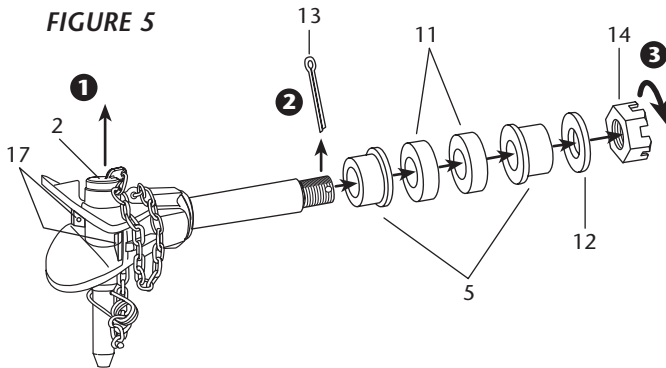
- Slowly remove the jack pressure. Carefully lower the lower housing (Item 15) and pintle hook sub-assembly, taking care to support the fish mouth end of the pintle hook sub-assembly.

FIGURE 4



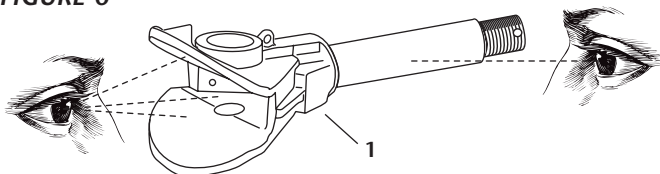
- Remove and inspect the clevis pin (Item 2) for wear or cracks. Disassemble the pintle hook sub-assembly by
 - removing the cotter pin (Item 13) from the shank, then
 - remove the slotted nut (Item 14) and flat washer (Item 12).

FIGURE 5



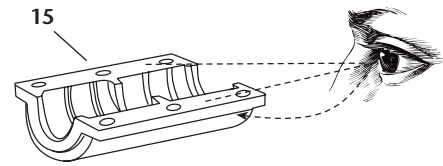
- Remove and discard the 2 rubber cushions (Item 11). If the 2 steel bushings (Item 5) have any signs of wear — replace them. Remove and discard the two wear plates (Item 17) from each side of the fish mouth.
- Inspect the pintle hook shank, fish mouth assembly, and wear plates for wear or cracks. If cracks exist, or if wear exceeds $\frac{1}{8}$ " (0.125") from the original surface profile, replace the pintle hook and/or wear plates.

FIGURE 6



- Inspect the lower housing (Item 15) for cracks. Replace the lower housing if any cracks are found.

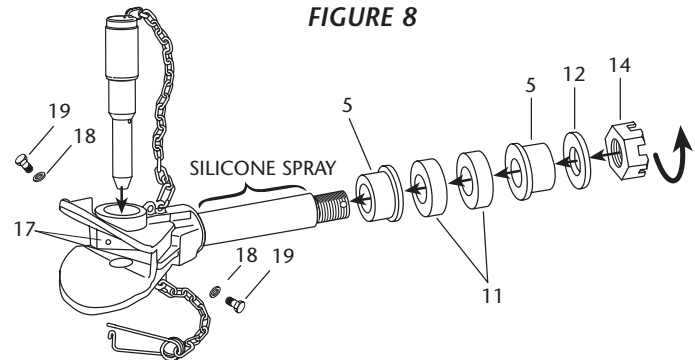
FIGURE 7



RE-ASSEMBLY

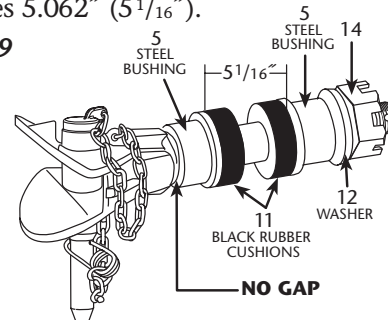
- Re-assemble the pintle hook assembly as shown in FIGURE 8. Coat the shank of the pintle hook with silicone spray. Then, install the bushings and cushions. Start the slotted nut (Item 14) onto the shank of the pintle hook.

FIGURE 8



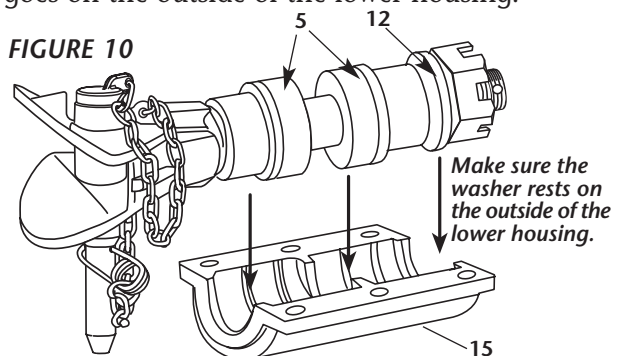
- Next, slide the two steel bushings (Item 5) and rubber cushions (Item 11) apart (FIGURE 9). Then, tighten the slotted nut (Item 14) until the distance between the inside of the steel bushings measures 5.062" ($5\frac{1}{16}$ ").

FIGURE 9



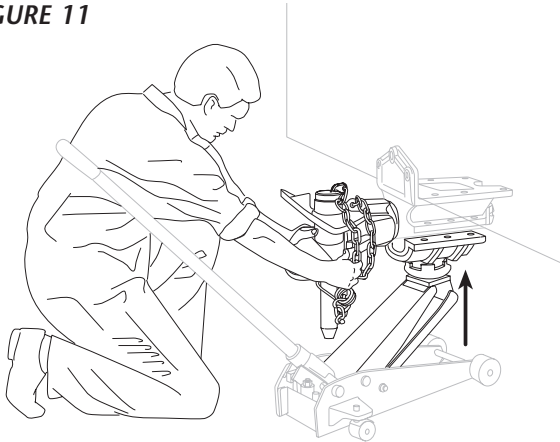
- Place the pintle hook assembly in the lower housing (Item 15). Lubricate the rubber cushions (Item 11) with silicone spray or a soapy water solution, if necessary. **NOTE:** The washer (Item 12) goes on the outside of the lower housing.

FIGURE 10



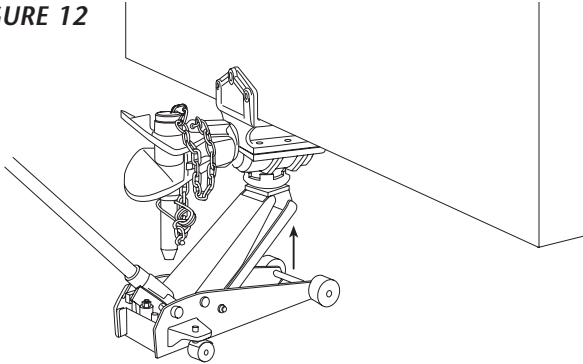
- Next, place the pintle hook assembly and the lower housing back onto the floor jack to install it back into the upper housing.

FIGURE 11



- Exert enough jack force to clamp the lower housing against the upper housing, with the pintle hook assembly in place between them.

FIGURE 12

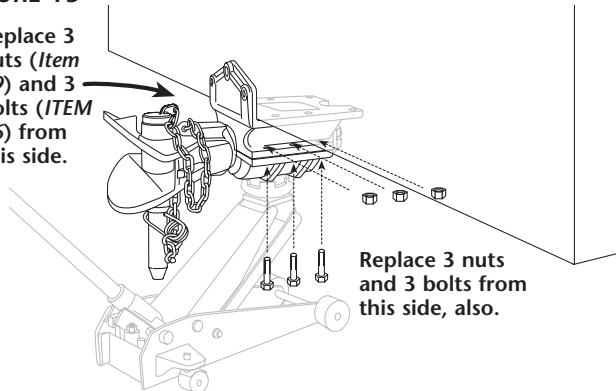


- Insert six (6) new grade 8 bolts (Item 16) up through both the lower housing (Item 15) and the upper housing (Item 10). Secure the bolt with six (6) new grade 8 nuts (Item 9).

⚠️ WARNING Never re-use nuts and bolts! The lock nuts may not lock and the bolts may have been weakened due to corrosion and loads applied. If the bolts break, the pintle may separate from the vehicle and death or serious injury may occur.

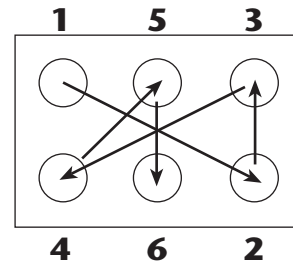
FIGURE 13

Replace 3 nuts (Item 19) and 3 bolts (ITEM 16) from this side.



- Draw the upper and lower housings together by tightening the six (6) bolts. Tighten the bolts in a crisscross pattern.

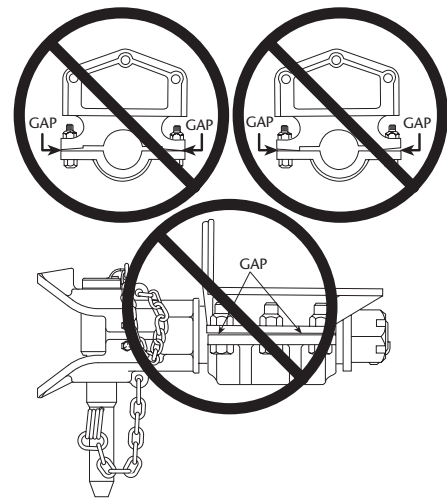
FIGURE 14



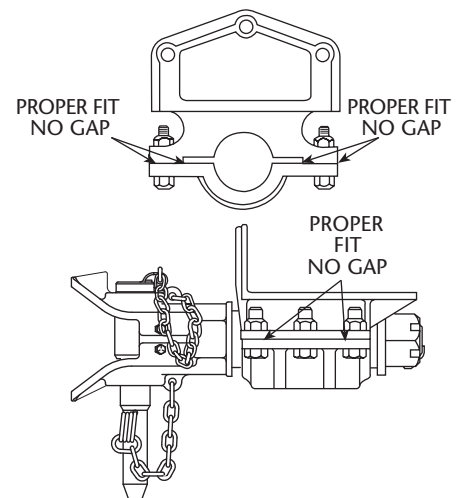
- After tightening the nuts to 300-400 ft. lbs. torque, the upper and lower housings must butt together with no air gaps at either the inside or outside mounting surfaces.

FIGURE 15

IMPROPER FIT



PROPER FIT

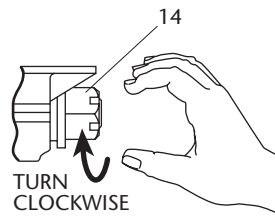


- If there are gaps, i.e. an improper fit, loosen the nuts and re-position the rubber cushions. Add silicone spray or soapy water where necessary. Re-tighten, following STEPS 7 and 8.

continued

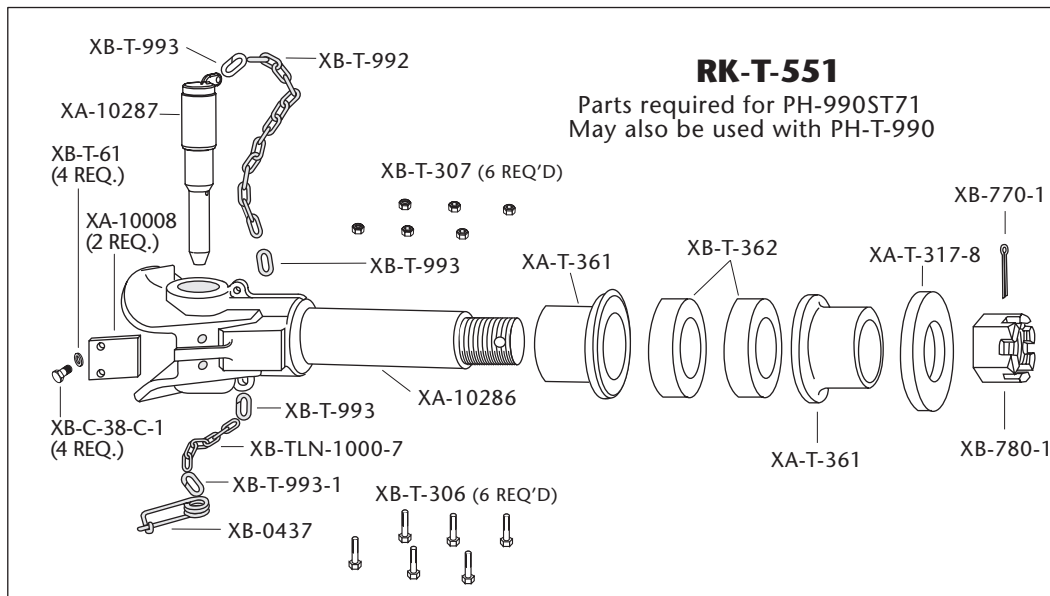
RE-ASSEMBLY *continued*

10. Take up any slack in the pintle hook assembly by hand tightening the nut (*Item 14*).



11. Install a new cotter pin (*Item 13*) into the next closest slot in the nut (*Item 14*).

PH-990ST71 REBUILD KIT PARTS BREAKDOWN



ITEM NO.	PART NO.	NO. REQ'D.	DESCRIPTION	ITEM NO.	PART NO.	NO. REQ'D.	DESCRIPTION
1	XA-10286	1	Pintle hook	11	XB-T-362	2	Rubber cushion
2	XA-10287	1	Clevis pin	12	XA-T-317-8	1	Washer
3	XB-T-993	3	Open end link	13	XB-770-1	1	Cotter pin
4	XB-T-992	1	Chain (16 links)	14	XB-780-1	1	Slotted nut, 2 1/4"
5	XA-T-361	2	Steel bushing	15*	XA-T-312	1	Housing (lower)
6	XB-TLN-1000-7	1	Chain (8 links)	16	XB-T-306	6	7/8" x 2 3/4" HHCS bolt, Grade 8
7	XB-T-993-1	1	Open end link	17	XA-10008	2	Wear plate
8	XB-0437	1	Safety pin	18	XB-T-61	4	Washer, 3/8" lock
9	XB-T-307	6	7/8" Lock nut, Grade 8	19	XB-C-38-C-1	4	HHCS 3/8-16 x1
10*	XA-T-311	1	Housing (upper)				

* Not included in rebuild kit

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