

Service Bulletin #COL-121

CA & CT Series Cam Kit Replacement

Revised October, 2003

This TRW Commercial Steering Systems' service bulletin has been written to help you repair commercial vehicles more efficiently. This bulletin should not replace your manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, NOT "Do-it-yourselfers". You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.

1. Remove the column from the vehicle. Remove the upper shroud (2) by removing four mounting screws (1), and twisting the shroud off over the input shaft.

Remove the handle cover (3); it may have to be cut off. Then remove four shroud screws (4), and the lower shroud (5).

2. Place the column in a vice, clamping on the mounting bracket flange.
3. Tilt toward the mounting bracket. Tilt telescope columns also telescope up.
4. Remove the cap screw, washer and actuator handle. This cap screw has a nylon patch. Use a 5/32" Allen socket, keeping pressure on the screw to avoid rounding the hex.
5. **Tilt telescope columns only:** Use vice grips to release the lower end of the torsion spring from its position over the wireform. Guide the spring end until the spring rests in a non-tension position. Remove the torsion spring.

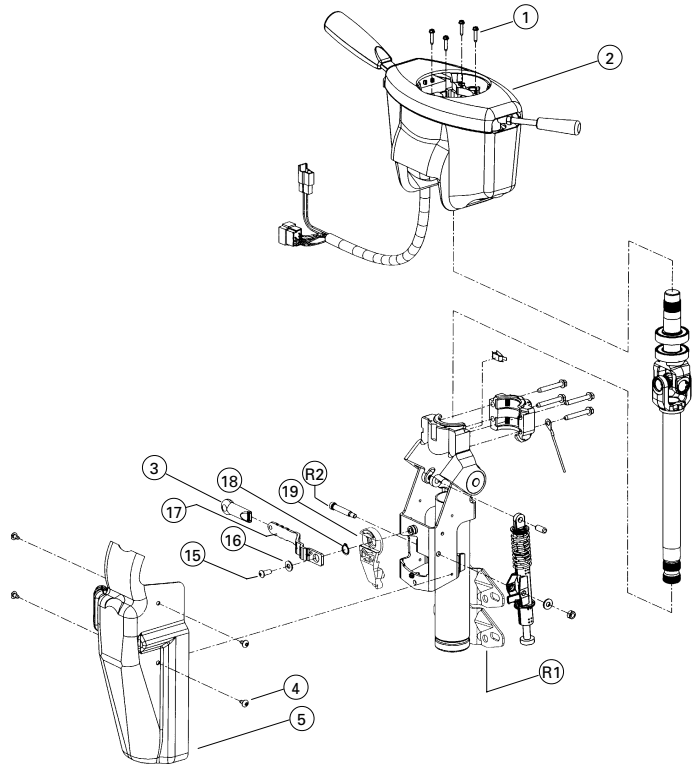
⚠ WARNING Wear eye protection. This torsion spring in the tilt telescope column can be loaded, and could snap or fly when removed.

8. **Tilt telescope columns only:** Remove all grease from the bracket around the actuator pivot pin. Apply clean grease around the actuator pivot pin, and on the back of the new actuator cam.
9. Place the new actuator cam on the actuator pivot pin, with the tail of the cam behind the bracket.
10. Place the new retaining ring in its groove on the actuator pivot pin. Make sure the retaining ring is seated properly.
11. **Tilt telescope columns only:** Hook the top end of the new torsion spring in the same position from which the old spring was removed. Use vice grips to pull the lower end of the torsion spring into place over the wireform.

⚠ WARNING Wear eye protection during this step. This torsion spring can be loaded, and could snap or fly during installation.

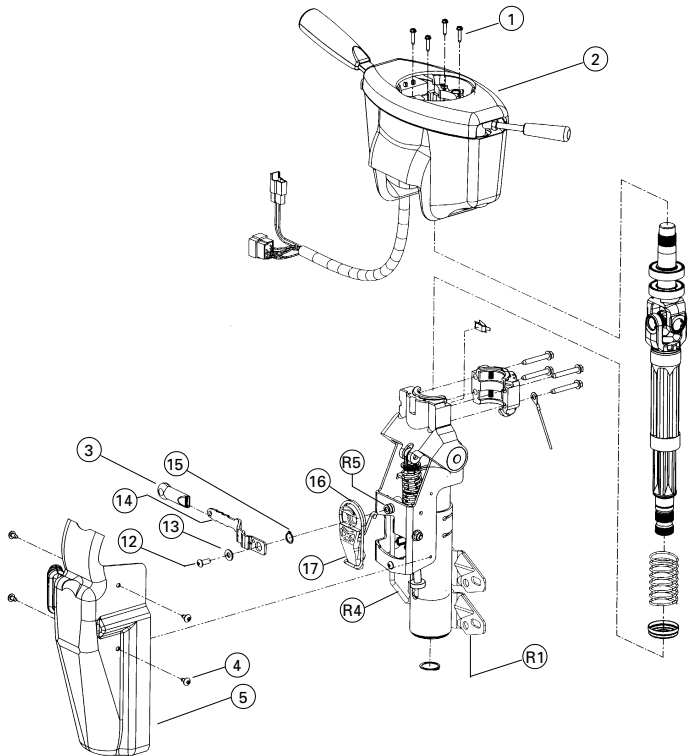
6. Remove the retaining ring.
7. Remove the actuator cam.
12. Place the actuator handle on the actuator pivot pin.
13. Install the new washer and cap screw and tighten to **72-88 lbf•in.**
14. Reinstall shrouding. Torque all shroud screws to **25-30 lbf•in.** Replace the handle cover (3). Reinstall the column in the vehicle. Torque mounting bolts to manufacturer's specifications.

Item No.	Description
1	Mounting screws (4)
2	Upper shroud
3	Handle cover
4	Shroud screws (4)
5	Lower shroud
15	Cap screw
16	Washer
17	Actuator handle
18	Retaining ring
19	Cam
R1	Mounting brackets
R2	Actuator pivot pin



Tilt Only (CT) Column

No.	Description
1	Mounting screws (4)
2	Upper shroud
3	Handle cover
4	Shroud screws (4)
5	Lower shroud
12	Cap screw
13	Washer
14	Actuator handle
15	Retaining ring
16	Torsion spring
17	Cam
R1	Mounting brackets
R4	Wireform
R5	Actuator pivot pin



Tilt Telescope (CA) Column

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