

# Edson CDi Brake Replacement

EB-99-398

## Helpful tools to have available:

Screwdrivers, philips and straight  
7/16" open or box wrench  
5/16" open or box wrench  
Small adjustable wrench  
Large adjustable wrench  
5/16" Allen wrench

Needle nose pliers  
Snapping pliers  
Paper towels or rags  
Soft faced hammer  
Some small blocks of wood, 2x4 size and smaller

## Instructions:

1. Remove wheel. Unscrew wheel nut and slide the wheel off of the shaft. Also remove the plastic faceplate at the wheel shaft.
2. Remove the top of the console.
3. Remove the bin/cooler. Pull the top of the console up and forward to expose the 470 CDi Pedestal.
4. Remove the cockpit sole to access the draglink and tiller arm.
5. Back off the locking nuts which prevent the draglink (Fig.1) from turning. **Note**, one is right hand thread and the other is left hand thread. Unscrew the draglink from the ball joints as you would unscrew a turnbuckle.

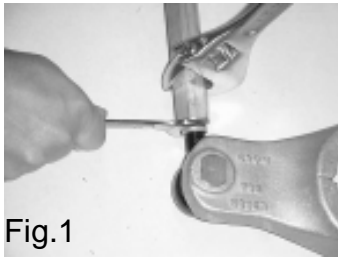


Fig.1



Fig.2



Fig.3



Fig.4

6. Remove the external snap ring (C16) and key (C17) from the wheel shaft (C5) and remove the set screw from the top aft of the pedestal housing (Fig.2) which holds the aft wheel shaft bearing housing. Using a screwdriver tap out the aft bearing housing and bearing aft (Fig. 3). Remove the bearing and housing from the shaft (Fig.4).
7. Remove the four bolts which hold the forward wheel shaft bearing clamp (C18). If there is a rotary drive autopilot attached to the steerer remove the master link in the drive chain and remove the chain. It is not necessary to remove the auto pilot sprocket. You may now remove the pinion gear/wheel shaft by tilting up the forward end and removing it from the pedestal in a forward direction (Fig.6).



Fig.6



Fig. 7

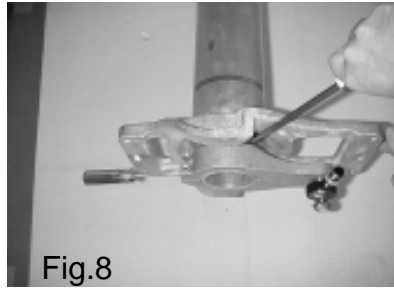


Fig. 8



Fig. 9

8. Loosen/remove the two allen head screws in the output arm (C12)(Fig.7). Using a large straight bladed screwdriver as a wedge (Fig.8) spread the split in the output arm. Pry the output lever down as far as possible. It will hit the fiberglass cockpit sole before it will come free from the output shaft. You can then alternately pry up the rack gear and pull down the output arm. Be careful not to force the shaft upward too far until the key is removed (Fig.9). Doing so will damage the lower shaft bearing and retaining ring (C19). When the output arm is free remove the key from the output shaft. **Note:** On some models you may be able to unbolt and tilt the pedestal to gain working room at the base of the pedestal.
9. Remove the rack gear and output shaft by pulling them straight up (Fig.11). You can twist the tube back and forth while removing. **Note:** do not tilt the tube out of column with the pedestal tube it will damage the bearings.



Fig. 10



Fig. 11



Fig. 12

10. Remove the cotter pin from the brake shaft (C6)(Fig. 12) and unscrew the brake shaft from the collar. Install the new brake collar and insert and completely spread the new cotter pin. Clean the base of the rack gear where the brake rides before reassembly.
11. Slide the upper bearing (C2) onto the output shaft and slide the output shaft into the pedestal (Fig.16). Insert the key into the keyway on the output shaft. Mark the location of the keyway on the outside of the output arm. This will help with the alignment of the key and keyway. Install the output arm on the output shaft and reconnect the drag link making sure to tighten the locking nuts.



Fig. 13

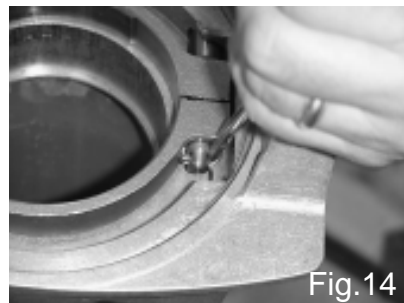


Fig. 14

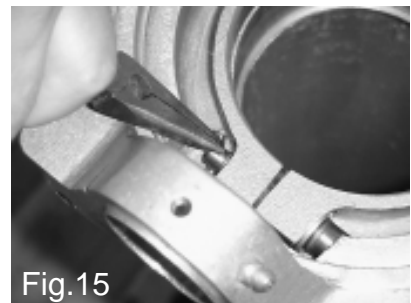
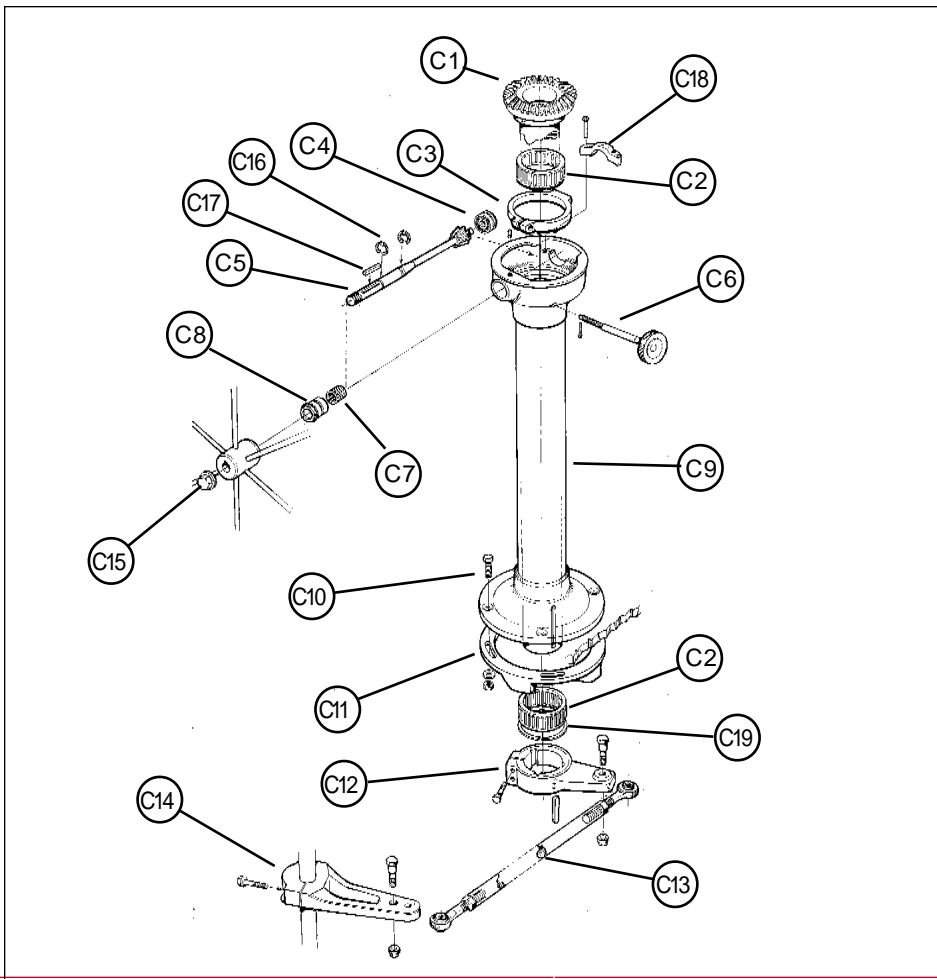


Fig. 15



12. Reinstall the wheel shaft in reverse of the disassembly. Tilt the shaft and set the forward bearing in the collar. Slide the aft bearing and bearing collar onto the shaft. Snug the set screw on the bearing. Set the gear mesh between the rack and the pinion gears so there is no backlash and the gears turn smoothly (Fig.17). The mesh (Fig.18) is determined by the fore/aft positioning of the shaft. Tighten the four bolts on the forward bearing cap and recheck for backlash. Reinstall the snap ring and key on the wheel shaft (C16,C17).
13. Replace bin/cooler, console top. Reinstall wheel.



### Parts Key

- C1 - 360° Rack Gear with Downshaft
- C2 - Stainless Needle Bearings
- C3 - Brake Collar
- C4 - Stainless Pinion Shaft Thrust Bearing
- C5 - Wheel Shaft with Pinion Gear
- C6 - Brake Handle / Shaft Assembly
- C7 - Needle Bearing
- C8 - Bearing Carrier
- C9 - Pedestal Housing
- C10 - (4) Pedestal Mounting Bolts
- C11 - Rudder Stop Ring
- C12 - Output Lever
- C13 - Drag Link
- C14 - Tiller Arm
- C15 - Stainless Wheel Nut
- C16 - Snap Rings
- C17 - 1/4" Shaft Key
- C18 - Bearing Cap
- C19 - Lower Bearing Snap Ring