ZERO-MAX

# H-TLC

Models 500 & 1000

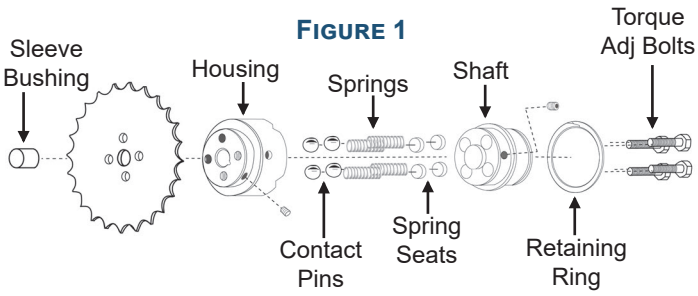
## H-TLC Assembly, Disassembly, Spring Change, and Torque Adjustments

### Tools Required

- Flat-blade screwdriver
- Retaining ring pliers set
- Wrench set for torque adjustment
- SAE hex key allen wrench set
- Bench vise

- All H-TLC models consist of two separate assemblies. The drive Shaft assembly (internal portion) and the Housing assembly (outer portion). In all H-TLC units these two assemblies must be separated to gain access to the springs.

Figure 1




### Assembly—All Types (C, B, CD, BD)

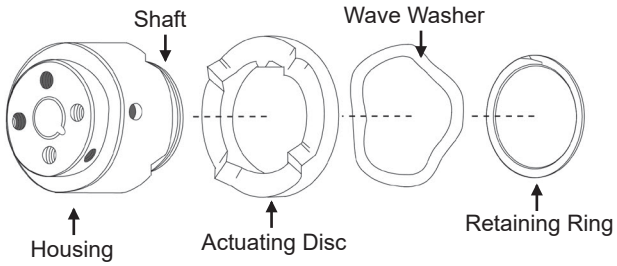
- Put a small amount of grease on the inside bottom of the housing section. This increases contact pin life and is a one-time-only procedure.
- Follow Figure 1 to load spring seats, springs and contact pins in Shaft section.
- Slide Housing over Shaft assembly, making sure the Shaft assembly's two internal set screws line up with access holes in the Housing.
- Model 500 units have a wear washer (not shown in Figure 1) which you slide on before the Shaft section retaining ring.
- Install retaining ring by separating coils, inserting end of ring into groove, then winding until the ring is completely seated.

  ***Note: You may have to slightly compress Shaft and Housing sections to line up retaining ring grooves.***
- Install torque adjusting bolts finger-tight then further tighten each equally to raise torque setting to desired level. ***See Torque Adjustment Instructions.***

  ***Note: Reverse above procedure for disassembly.***

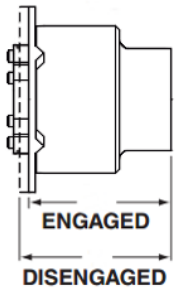
### Type CD and BD (with Actuating Disc)

- Optional Actuating Disc Assembly ***(See below)***
- Place Actuating Disc over Shaft portion of H-TLC, then install wave washer and retaining ring as shown. Install retaining ring by separating coils, inserting end of ring into groove, then winding until the ring is completely seated.




***Note: Reverse above procedure for disassembly.***

- In applications where RPM exceeds 400 or where machine drive might run unattended in an overload condition, we recommend use of the optional Actuating Disc assembly.
- Upon overload, this mechanism automatically moves axially to trigger a customer-supplied limit switch. Limit switch should be installed to trigger a visible or audible alarm for the operator, or to automatically shut down machine.




### Torque Adjustment

- Tighten torque adjusting bolts equally. Test the H-TLC as you do this to determine when your desired disengagement torque has been reached.

**CAUTION: DO NOT ADJUST UNIT TO EXCEED TORQUE RATINGS PUBLISHED IN BELOW TABLE BY OVERTIGHTENING! DO NOT BOTTOM OUT SCREWS AS MAXIMUM TORQUE SETTING IS REACHED BEFORE SCREWS BOTTOM OUT. RUNNING UNIT WITH SCREWS BOTTOMED OUT COULD DAMAGE UNIT.**

### Torque Adjustment Range

| H-TLC Model | Blue Spring | | Red Spring | | Gold Spring | |
|---|---|---|---|---|---|---|
| | Inch Pounds | NM | Inch Pounds | NM | Inch Pounds | NM |
| 500 | 4-60 | 0.5-6.8 | 40-125 | 4.5-14.1 | 100-150 | 11.3-16.9 |
| 1000 | 40-150 | 4.5-16.9 | 140-350 | 15.8-39.5 | 300-500 | 33.9-56.5 |

**CAUTION: SPRINGS CANNOT BE INTERCHANGED BETWEEN H-TLC UNITS WITH DIFFERENT MODEL NUMBERS.**

**BECAUSE OF INERTIA AND/OR ENERGY IN POWER TRANSFER EQUIPMENT, TORQUE LIMITERS WILL NOT PROTECT AGAINST PERSONAL INJURY.**

**CAUTION: WEAR SAFETY GLASSES WHEN CHANGING SPRINGS.**

If H-TLC disengages prematurely or if nuisance tripping is occuring, consider:

- Adding an Actuating Disc, which can interface with a customer-supplied limit switch which can be wired to shut-down the motor.
- Soft-start the motor.
- Increment to a larger torque setting by changing springs-**see assembly instructions.**
- H-TLC must be manually rotated or jogged into a full reset before starting equipment.

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