

# **TORSPEC™** EDDY CURRENT BRAKE INSTALLATION AND MAINTENANCE INSTRUCTIONS

## **TORSPEC MODEL 160TCD/6 MKIII METRIC**



### **WARNING**

*Disconnect all incoming power before working on this equipment.  
Follow power lockout procedures.  
Use extreme caution around electrical equipment.  
Do not touch the circuit board while power is applied.*



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*Manufacturers & Suppliers of World Class Quality Variable Speed Drives & Controls*

# TORSPEC MODEL 160TCD/6 MKIII DISMANTLING INSTRUCTIONS

**CAUTION** - BE SURE TO DISCONNECT POWER AND FOLLOW LOCK-OUT PROCEDURES AS SPECIFIED BY LAW ***BEFORE*** OPENING ANY TERMINAL BOXES OR TOUCHING ANY WIRING.

- D1: Open terminal box and disconnect drive wires. **EXTREME CAUTION** should be exercised with the small wires going to the tach generator, as they can be easily broken.  
*Hint: (Look for broken wires, or poor connections.)*
- D2: Remove the four bolts holding the back plate and grills. Remove two set screws on the torque tube fan assembly, then slide the torque tube through the back of the unit.
- D3: Remove the four bolts holding the output assembly to the main casing. Remove output assembly while feeding wires through the hole. Once the wires are free, the output assembly can be completely removed.
- D4: The polewheel is removed by removing the bolt in the side of the polewheel.
- D5: The coil is held in place by circlip at the back and silicone sealant at the front. After removing the circlip, it is necessary to use a thin blade to break the sealant between the coil form and the front of the output assembly. **Care must be used, as the former is breakable.**  
*Hint: (Look for physical damage and signs of overheating. The coil should be approximately 220 ohms. Low resistance will cause the control fuses to blow, too high will result in poor performance).*
- D6: To separate the coil and tach wires, cut the waxed string and **carefully** slide the rubber tube off. If the tach is being replaced, a string or small wire tied to the old tach wires before removing can be used to assist in pulling in the new wires. *Hint: (Look for broken wires, tach should be 220 ohms.)*
- D7: Remove the tach mounting plate and tach generator stator. The tacho armature is held in place by a setscrew and can be pulled off. **Be sure not to damage the magnetic strip.**
- D8: Remove the rear bearing retaining plate.
- D9: Remove the shaft from the output assembly, pressing on the output side of the shaft through the back.
- D10: The rear bearing and front bearing race that is still on the shaft can now be removed. The front bearing race can also be removed from the stator body.

# **TORSPEC MODEL 160TCD/6 MKIII ASSEMBLY INSTRUCTIONS**

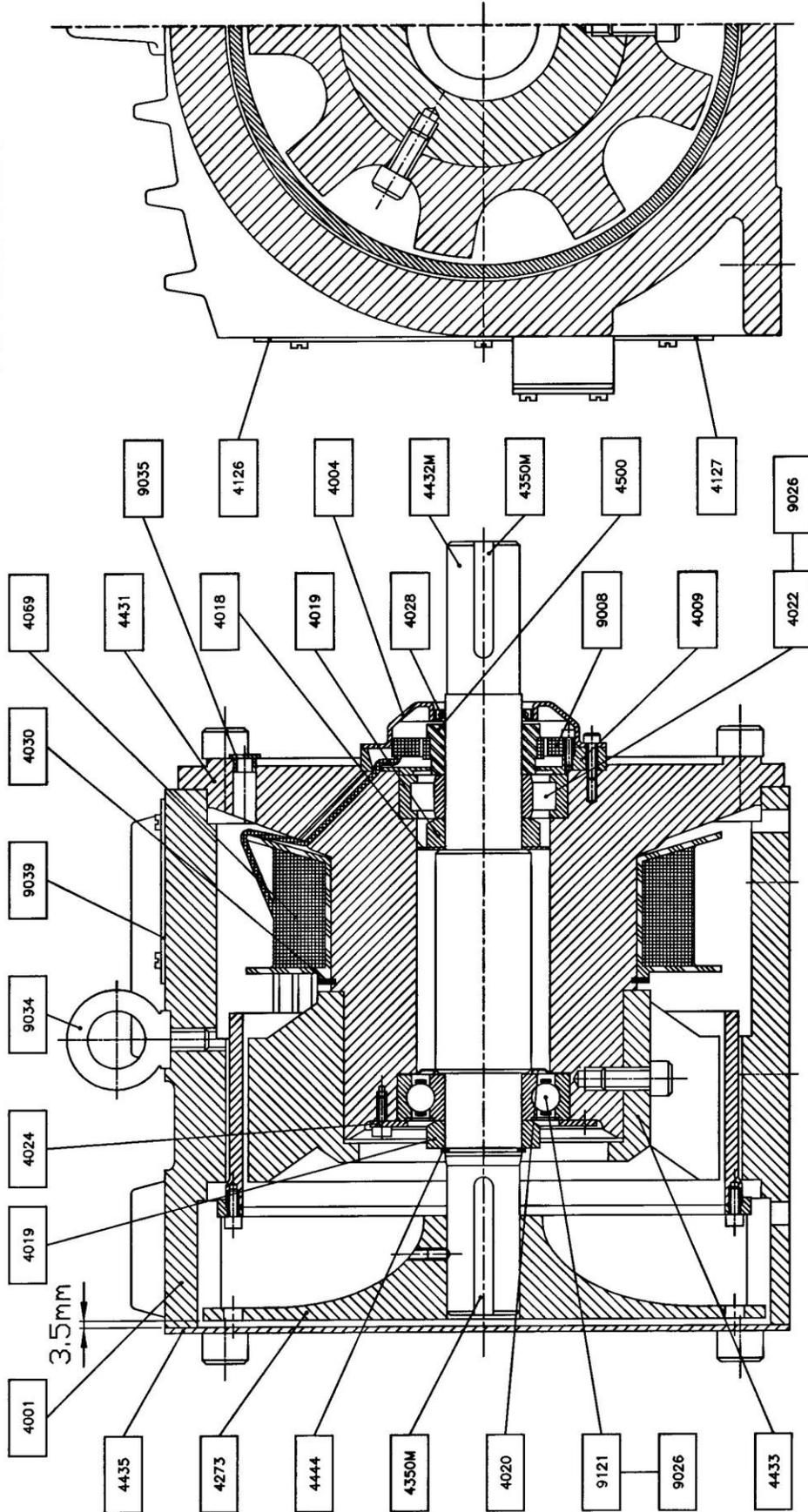
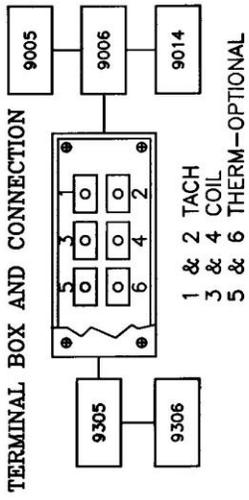
## **USE A THREAD LOCKING COMPOUND ON ALL BOLTS**

- A1: Press pre-greased rear bearing onto the shaft, complete with nilos ring. Place bearing spacer on the shaft and secure with circlip. Place grease baffle and front bearing spacer onto shaft. Press front bearing inner race on shaft. Press pre-greased front bearing outer race into stator body. Load shaft assembly into stator body from the rear and secure with bearing retainer plate and four bolts.
- A2: Place tach generator mounting plate on stator. Mount the armature on the shaft and secure with a setscrew. Feed tach generator wires through the hole in the output assembly and tach on mounting plate. Secure with four bolts and four washers. Press oil seal into the tach cover and secure cover and tach mounting plate with four bolts.
- A3: Apply silicone rubber to the front of the main coil and push the coil onto the output assembly. Install the coil circlip. Push the tach wires, then the coil wires into the rubber sleeving. Tie off with a piece of waxed string as close to the main coil as possible.
- A4: Bolt the polewheel onto the stator body.
- A5: Insert the output assembly into the casing while feeding the wires through the hole. Bolt into place on the main casing.
- A6: Fit the torque tube assembly onto the shaft (Held by 2 set screws). For fan on tube to be properly positioned, the distance between the outside surface at fan (rotor) and the casing outside surface should be 3.5 mm. Refer to the drawing. – Ensure that the copper on the tube is centered over the polewheel. Tighten grub screws on the rotor hub to shaft.
- A7: Fit back plate and grills to the back of the casing.
- A8: Fit ring type wire connectors to the tacho generator and coil, and then bolt to terminal block.
- A9: For terminal box fitting:
- 1) Fit gasket
  - 2) Fit terminal box
  - 3) Fit gasket
  - 4) Fit lid
  - 5) Fit 4 – M5 self locking nuts

# TORSPEC MODEL160TC/6 MKIII PARTS LIST

PART NO.	DESCRIPTION
4001	CASING
4004	TACH COVER 4-M5X35 SOCKET HD. CAP AND 4 FLAT WASHERS
4009	TACH GENERATOR MOUNTING PLATE
4018	GREASE BAFFLE
4019	BEARING SPACER X 2
4020	NILOS RING 6308JV
4022	BEARING FRONT NU308
4024	BEARING REAR RETAINING PLATE FIXED BY 4-M5X16 SOCKET HD. CAP
4028	OIL SEAL 40X52X8 STD. & CODE F1
4030	COIL RETAINING RING
4069	HP COIL FIXED BY PART NO. 4030
4126	MESHED GRILLES LARGE OUTLET FIXED BY 6-M6X10 PAN HD. SLOTTED
4127	MESHED GRILLES SMALL INLET FIXED BY 4-M6X10 PAN HD. SLOTTED
4273	TORQUE TUBE ASSY. FIXED BY 1-M6X10 CUP POINT GRUB SCREW, 1-M6X12 CONE POINT GRUB SCREW
4431	STATOR BODY ASSY. FIXED BY M12X40 SOCKET HD. CAP
4435	BACKPLATE FIXED 4-16X20 SOCKET HD. CAP
4444	REAR BEARING CIRCLIP
4500	TACH ARMATURE FIXED BY 1-M5X8 CUP POINT GRUB SCREW
9005	TERMINAL BOX FIXED BY 4-M5X60 STUDS, 4-M5 RUBBER WASHERS, 4-M5 FLAT WASHERS, 4-M5 LOCKNUT
9006	TERMINAL BOX LID X2
9008	TACH GENERATOR ASSY. FIXED BY 4-M4X16 SOCKET HD. CAP, 4-M4 FLAT WASHERS
9014	TERMINAL BOX GASKET X3 FOR CODES H10, H20, N1, N2, T1, T2
9026	BEARING GREASE UNIREX N3 HIGH TEMPERATURE GREASE OR EQUIVALENT
9034	EYEBOLT M12
9039	NAMEPLATE FIXED BY 4-6X1/4 TAPPING SCREWS
9305	TERMINAL BLOCK 4 WAY FIXED BY 1 -M5X12 SOCKET HD. CAP
9306	TERMINAL BLOCK 6 WAY FIXED BY 1-M5X12 SOCKET HD. CAP CODES B?, Y?
4433	POLEWHEEL FIXED BY 1-M12X 20 SOCKET HEAD CAP
4350M	KEYSTOCK METRIC D132 8X10X56 X2
9121	BACK BEARING
4432M	METRIC SHAFT 38MM D132

# TORSPEC MODEL 160TCD/6 MKIII BRAKE LAYOUT



NOT SHOWN (OPTIONAL):  
4501, 02, 03, 04 DEBRIS COVERS

