

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

## **TORSPEC MODEL 180TCD/9 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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# TORSPEC MODEL 180TCD/9 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 the terminal box and disconnect the 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 grilles. Remove two setscrews on the torque tube assembly through the back of the unit.
- D3: Remove four bolts from the front of the unit, and then lift output assembly from casing.
- D4: Remove rear-bearing circlip from shaft. Remove tacho housings **–Be careful not to break the tach wires when removing.** Press the shaft from the back through the front of the brake.
- D5: The polewheel is removed by removing the bolt in the side of the stator body.
- D6: 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 former and 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 20 ohms. Low resistance will cause the control fuses to blow, too high will result in poor performance.)*
- D7: Remove the rear bearing by removing outer rear bearing circlip. Then pull the bearing out through the back of the stator body. Remove the front bearing by first removing the tacho armature held by a setscrew. Press the inner race of the bearing off the shaft and the outer race should pull out the stator flange.

# **TORSPEC MODEL 180TCD/9 MKIII ASSEMBLY INSTRUCTIONS**

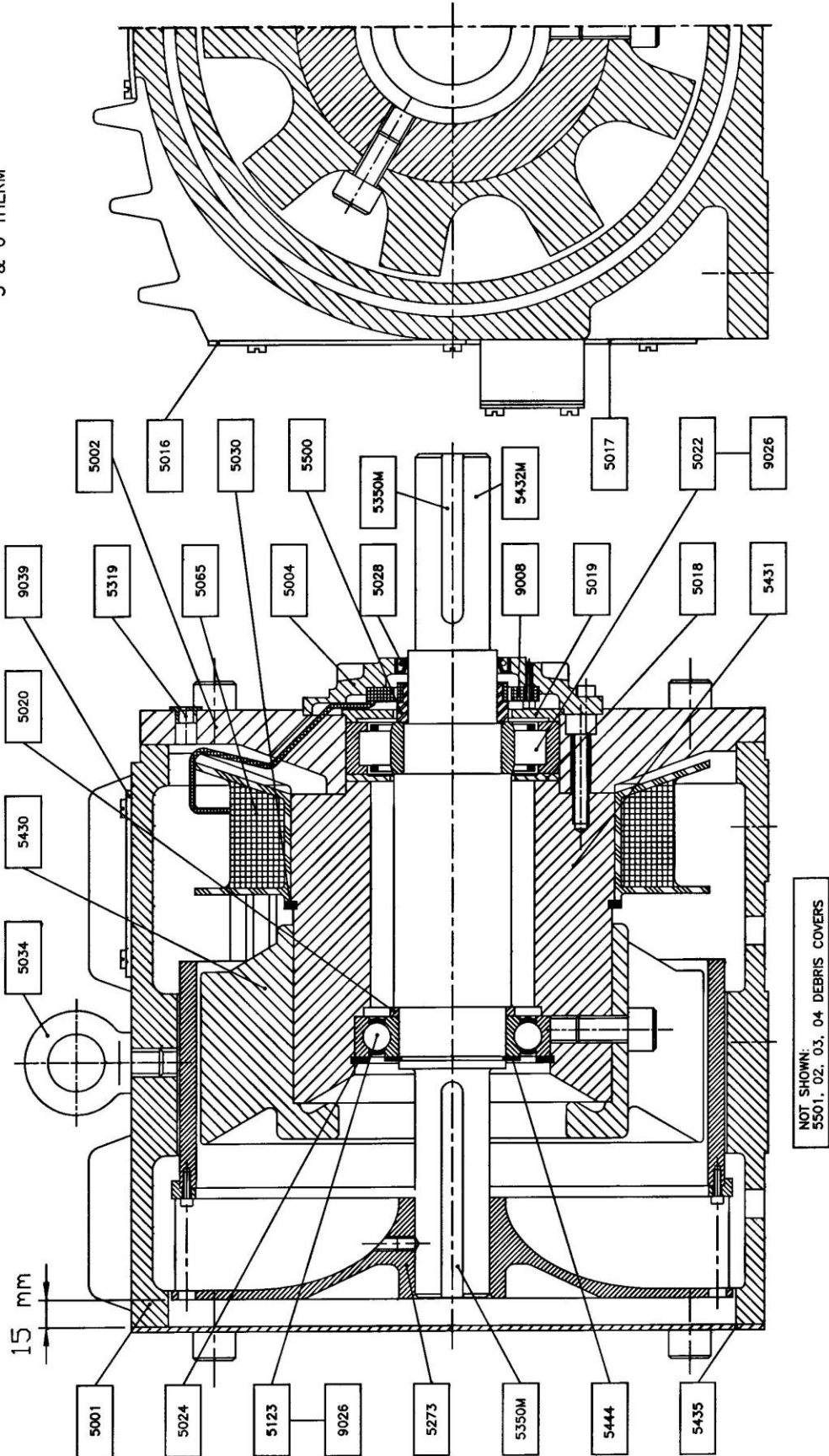
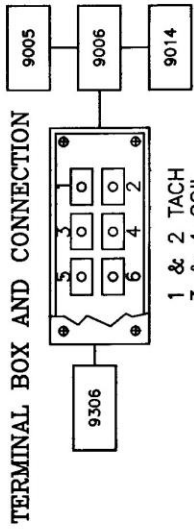
## **USE A THREAD LOCKING COMPOUND ON ALL BOLTS**

- A1: Press the rear bearing into the stator body, put rear bearing circlip into stator body. Place the inner race of the front bearing onto front shaft. Place inner seal plate on shaft, at the rear of the front bearing inner race. Place the rear bearing spacer onto the shaft. Press the shaft into the stator body through the front end. Press the outer race of front bearing into stator flange. Place the tachometer armature on the shaft up against the inner race of the front bearing. Place outer seal plate to stator flange, press oil seal into tachometer housing. Bolt the tachometer generator stator to the tachometer housing, then tachometer plate to stator flange. Put rear-bearing circlip onto the shaft.
- A2: Apply silicone rubber seal to bevel side of coil and fit the coil to the stator body. Fit coil retaining ring to stator body.
- A3: Fit the polewheel over the stator body and bolt to the stator body.
- A4: Lower the output assembly into front of casing and secure with four bolts.
- A5: Fit the torque tube assembly onto the shaft. For fan on tube to be properly positioned, the distance between the outside surface at fan (rotor) and the casing outside surface should be 15mm. Refer to the drawing. Line up screw holes on the rotor hub with dimple on shaft and use both setscrews to secure the shaft.
- A6: Bolt the back plate to rear of casing and fit grilles.
- A7: Fit ring type connectors to the tachometer generator and coil wires then bolt to terminal block.
- A8: For terminal box fitting:
- 1) Fit gasket
  - 2) Fit terminal box
  - 3) Fit gasket
  - 4) Fit lid

## TORSPEC 180TCD/9 MKIII PARTS LIST

PART NO.	DESCRIPTION
5001	CASING
5002	STATOR FLANGE FIXED BY 5-M10X50 SOCKET HD CAP, 4-M16X40 HEX HD BOLTS
5431	STATOR FLANGE FIXED BY 5-M10X50 SOCKET HD. CAP, 4-M16X40 HEX HD. BOLTS
5004	TACH GENERATOR HOUSING FIXED BY 6-M6X20 SOCKET HD. CAP
5018	INNER SEAL PLATE FRONT BEARING
5019	OUTER SEAL PLATE FRONT BEARING
5020	REAR BEARING SPACER
5022	BEARING FRONT NU311
5024	REAR BEARING CIRCLIP
5028	OIL SEAL 50X65X8
5030	COIL RETAINING RING
5034	EYEBOLT M16
5065	HP COIL FOR 4/15HP, 4/20, 2/25HP FIXED BY PART NO. 5030 CODES H10, H20, N1, N2
5273	TORQUE TUBE FIXED BY 1-M8X16 CONE POINT GRUB SCREW, 1-M8X16 CONE POINT GRUB SCREW
5116	MESHED GRILLES SMALL INLET FIXED BY 4-M5X8 PAN HD. SLOTTED
5117	MESHED GRILLES LARGE OUTLET FIXED BY 6-M5X8 PAN HD. SLOTTED
5123	BEARING REAR 6212RC3 FAG- DO NOT SUBSTITUTE
5319	PLASTIC PLUGS 6- # 8 CODES T1, H10, N1
5430	POLEWHEEL 1-M16X20 SHC
5431	STATOR BODY FIXED BY 5-M10X50 SOCKET HD. CAP
5435	BACKPLATE FIXED BY 4-16X20SHC
5444	REAR BEARING CIRCLIP
5500	TACHO ARMATURE FIXED BY 2-M5X8 CONE POINT GRUB SCREWS
9005	TERMINAL BOX FIXED BY 4-M5X60 STUD, 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 WASHER
9014	TERMINAL BOX GASKET X3 FOR CODES H10, H20, N1, N2, T1, T2
9026	BEARING GREASE UNIREX N3 "ESSO/EXXON" HIGH TEMP. GREASE OR EQUIVALENT
9039	NAMEPLATE FIXED BY 4-6X3.5MM TAPPING SCREWS
9306	TERMINAL BLOCK 6 WAY FIXED BY 1-M5X12 SOCKET HD CAP CODES B?, Y?
5350M	KEYSTOCK METRIC D160 8X12X80 X2
5432M	METRIC SHAFT

# TORSPEC MODEL 180TCD/9 MKIII PARTS DIAGRAM



NOT SHOWN:  
5501, 02, 03, 04 DEBRIS COVERS