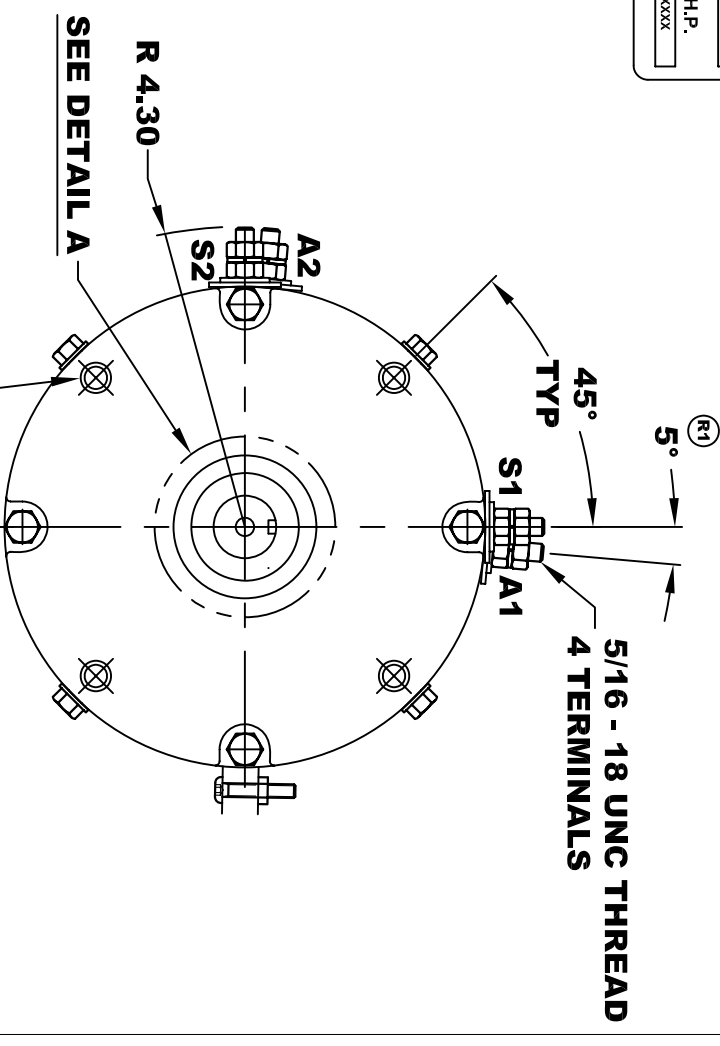


|                                   |          |           |             |           |  |
|-----------------------------------|----------|-----------|-------------|-----------|--|
| <b>D&amp;D MOTOR SYSTEMS INC.</b> |          | <b>A2</b> |             | <b>A1</b> |  |
| SYRACUSE N.Y.                     |          | S2        |             | S1        |  |
| <b>Model # ES-15D-21</b>          |          |           |             |           |  |
| Mfg. Date                         | Serial # | Rating    | Duty        |           |  |
| XXXXXX                            | XXXX     | Class H   | S2 - 60 MIN |           |  |
| Voltage                           | Current  | R.P.M.    | H.P.        |           |  |
| XXXX                              | XXXX     | XXXX      | XXXX        |           |  |
| MADE IN U.S.A.                    |          |           |             |           |  |

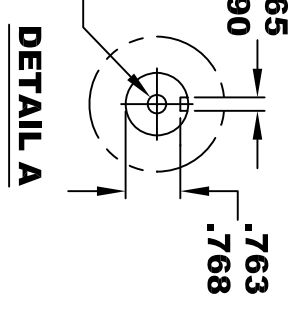
**TORQUE SPECIFICATION FOR  
POWER CABLE SECURING TOP NUTS  
5/16-18 UNC - 110 IN / LBS MAX**



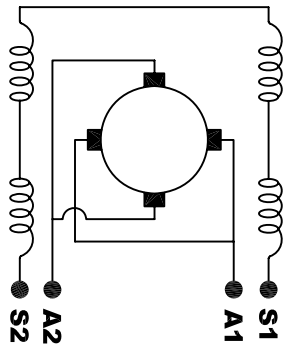
**SPEED SENSOR ELECTRICAL SPECIFICATION:**

- 4.5V TO 24V OPERATING VOLTAGE
- 20°C TO 85°C OPERATING TEMPERATURE
- CURRENT SINKING UP TO 25mA
- AN EXTERNAL OUTPUT PULL UP RESISTOR IS REQUIRED
- SENSOR IS DESIGNED TO OPERATE WITH 4 N/S POLEPAIRS
- THE OPERATIONAL DISTANCE BETWEEN THE MAGNET AND THE HOUSING, INCLUDING ANY RUNOUT SHOULD NOT EXCEED .030 INCHES

5/16 x 18 UNC THREAD  
▽ .75



**MOTOR WEIGHT: 63 LBS**  
**CLASS "H" INSULATION**  
**PERFORMANCE SPEC: 21**



**ELECTRICAL WIRING DIAGRAM**

**MOTOR WIRING CONNECTIONS:**

- CW ROTATION DRIVE END**
- CONNECT S2 & A1 TOGETHER**
- CONNECT S1 TO BATTERY TERMINAL**
- CONNECT A2 TO OTHER BATTERY TERMINAL**
- CCW ROTATION DRIVE END**
- SWITCH S1 & S2 CONNECTIONS**

THIS PRINT IS THE PROPERTY OF D&D MOTOR SYSTEMS INC.  
DO NOT SCALE  
WORK TO DIMENSIONS  
TOLERANCES UNLESS OTHERWISE SPECIFIED ARE AS FOLLOWS  
.XX \_\_\_\_\_ .01  
.XXX \_\_\_\_\_ .005  
.XX ROUGH CASTING \_\_\_\_\_ .03  
HOLES \_\_\_\_\_ -.001 / +.006  
ANGLES \_\_\_\_\_ 0°30"

**D & D MOTOR SYSTEMS INC**  
**MOTOR OUTLINE**

|       |            |              |                    |          |
|-------|------------|--------------|--------------------|----------|
| SIZE  | DRAWN DATE | RELEASE DATE | DWG NO. / PART NO. | REV      |
| B     | 1-28-03    |              | ES-15D-21 (R2)     | R2       |
| SCALE | STF        | DRAWN BY     | MJG                | REV DATE |
|       |            |              |                    | 11-15-05 |