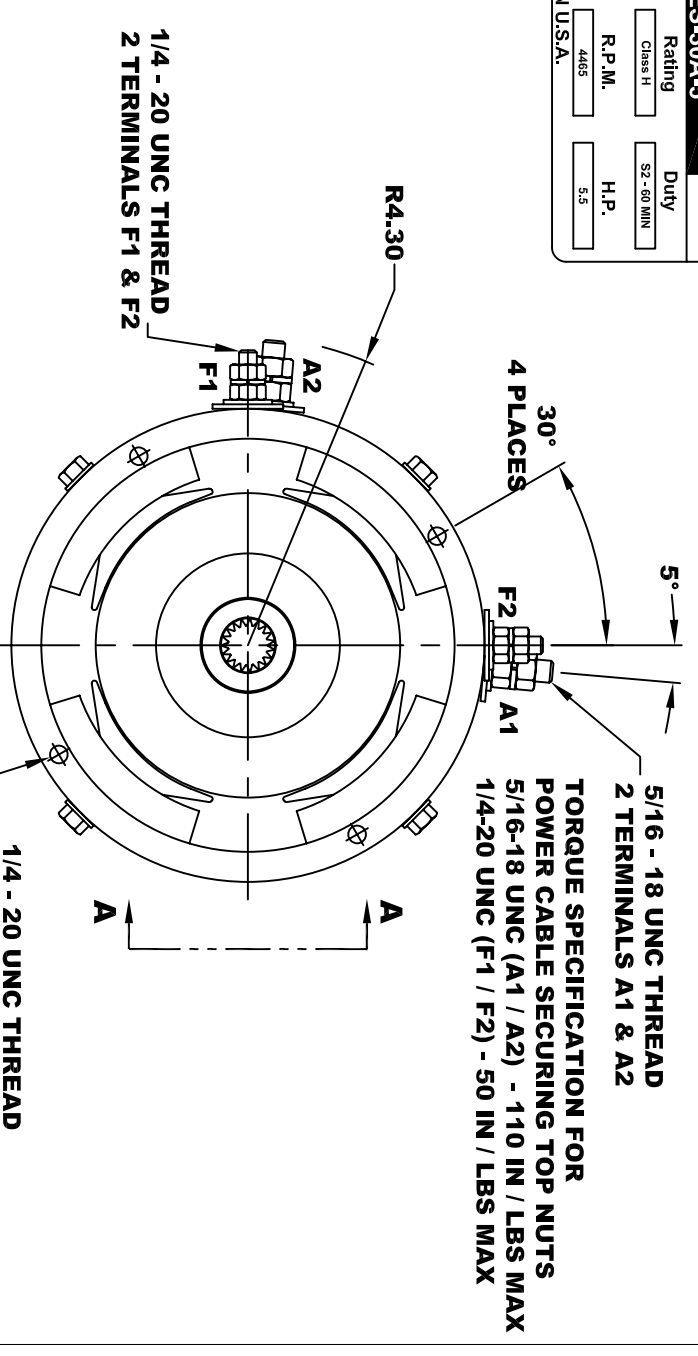
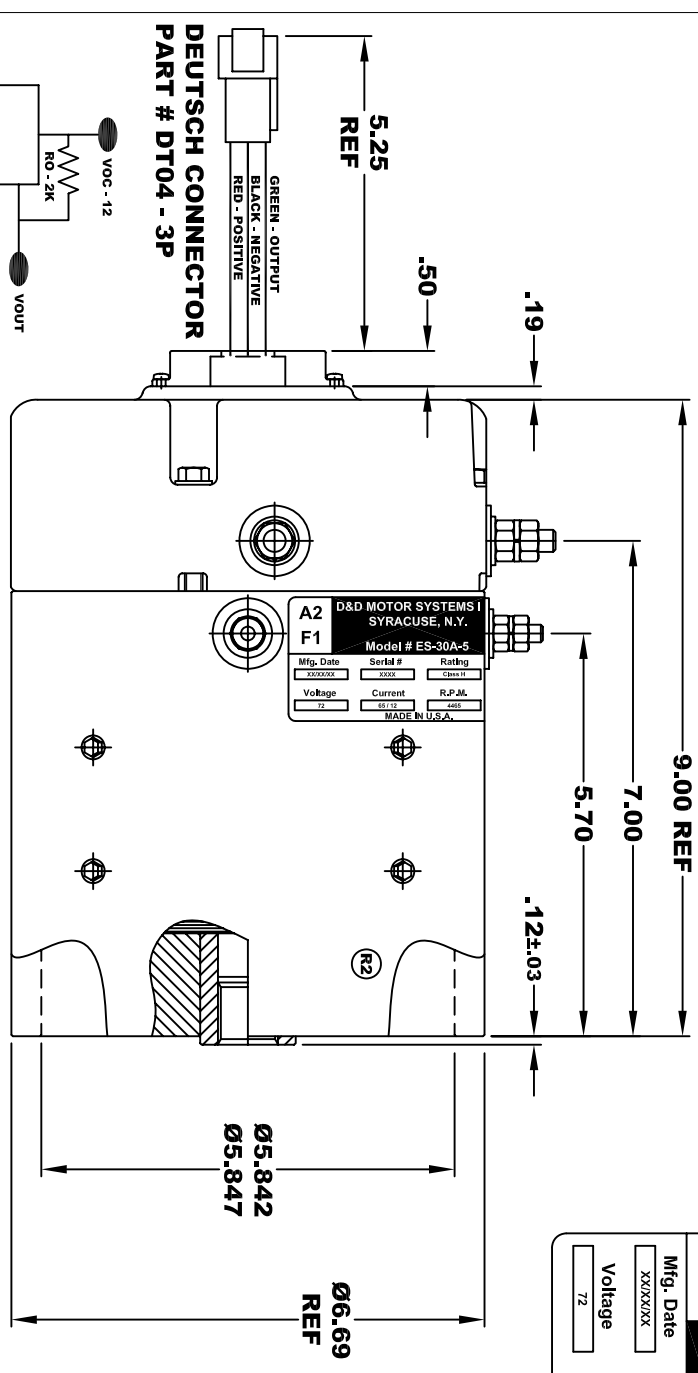


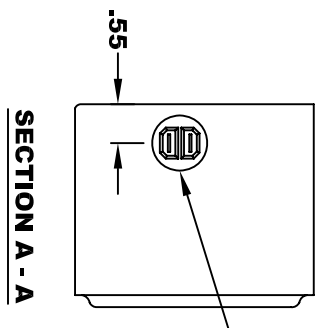
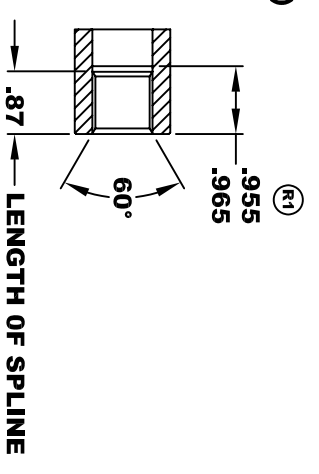
<b>A2</b>	<b>D&amp;D MOTOR SYSTEMS INC.</b>	<b>A1</b>
<b>F1</b>	<b>SYRACUSE N.Y.</b>	<b>F2</b>
<b>Model # ES-30A-5</b>		
Mfg. Date XXXXXX	Serial # XXXX	Rating Class H
Voltage 72	Current 65 / 12	R.P.M. 4465
		Duty S2 - 60 MIN
		H.P. 5.5
MADE IN U.S.A.		



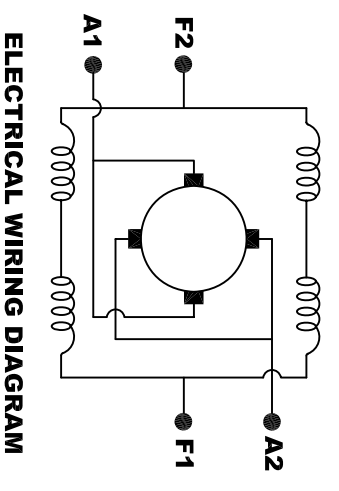
**ELECTRICAL SPECIFICATION:**  
 -4.5V TO 24V OPERATING VOLTAGE  
 -20°C TO 85°C OPERATING TEMPERATURE  
 -CURRENT SINKING UP TO 25mA  
 -AN EXTERNAL OUTPUT PULL UP RESISTOR IS REQUIRED  
 -SENSOR IS DESIGNED TO OPERATE WITH 4 N/S POLEPAIRS  
 THE OPERATIONAL DISTANCE BETWEEN THE MAGNET  
 AND THE HOUSING,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

**INTERNAL INVOLUTE SPLINE SPECIFICATION**  
 CLASS 5 FILLET ROOT SIDE FIT (PER A.N.S.I. B92.1)

- NO. OF TEETH \_\_\_\_\_ 19
- SPLINE PITCH \_\_\_\_\_ 24 / 48
- PRESSURE ANGLE \_\_\_\_\_ 45°
- BASE Ø \_\_\_\_\_ .5597 REF
- PITCH Ø \_\_\_\_\_ .7916 REF
- MAJOR Ø \_\_\_\_\_ .850 - .859
- FORM Ø \_\_\_\_\_ .835
- MINOR Ø \_\_\_\_\_ .767 - .772
- CIRCULAR SPACE WIDTH \_\_\_\_\_ .0764
- EFFECTIVE SPACE WIDTH \_\_\_\_\_ .0738
- MAX. DIMENSION BETWEEN TWO PINS \_\_\_\_\_ .6714
- PIN Ø \_\_\_\_\_ .0800
- SPLINE HARDNESS TO BE R/C 26-34



**THERMAL PROTECTOR ELECTRICAL SPECIFICATION:**  
 MAX. DC OPERATING VOLTAGE: 60 VOLTS  
 180° C NORMALLY CLOSED SWITCH  
 1/4" SPADE BUSHING  
 TERMINAL CONNECTIONS



**MOTOR WIRING CONNECTIONS:**  
 CW ROTATION DRIVE END  
 CONNECT A1 & F2 TO ONE BATTERY TERMINAL  
 CONNECT A2 & F1 TO OTHER BATTERY TERMINAL  
 CCW ROTATION DRIVE END  
 SWITCH F1 & F2 CONNECTIONS

**D & D MOTOR SYSTEMS INC**

**MOTOR OUTLINE**

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"

SIZE	DRAWN DATE	RELEASE DATE	DWG NO. / PART NO.	REV
B	5-4-05		ES-30A-5	R2
SCALE	STF	DRAWN BY	MJG	REV DATE
				5-2-13