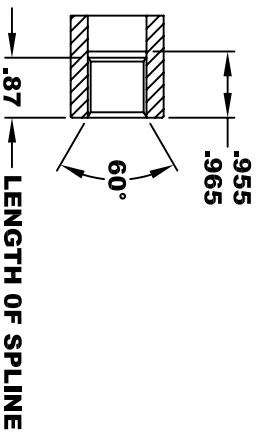


**INTERNAL INVOLUTE SPLINE SPECIFICATION  
CLASS 5 FILLET ROOT SIDE FIT (PER A.N.S.I. B92.1)**

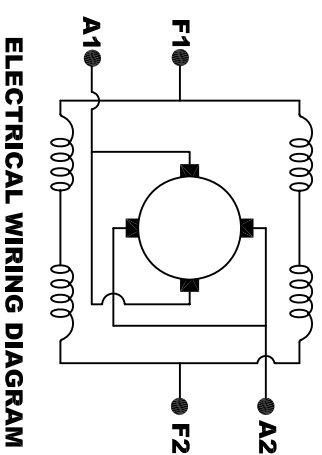
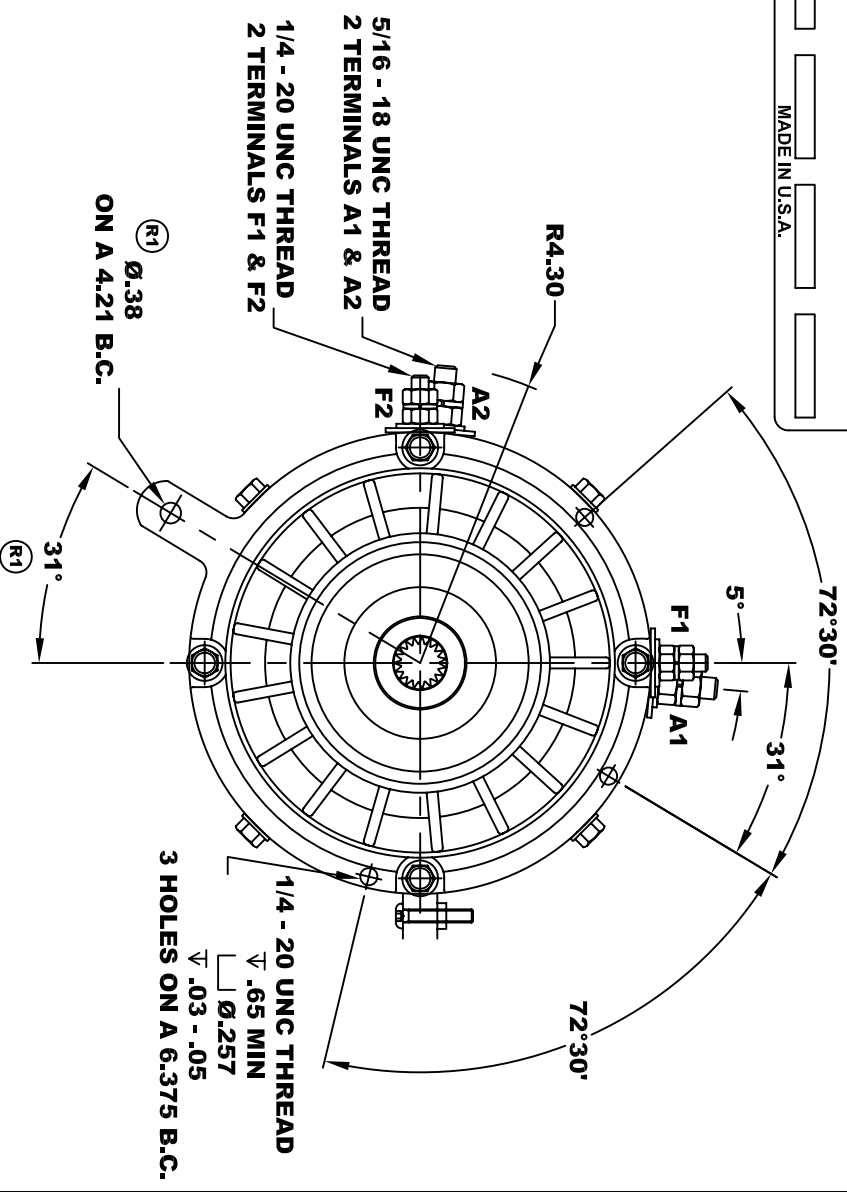
NO. OF TEETH \_\_\_\_\_ 19  
 SPLINE PITCH \_\_\_\_\_ 24 / 48  
 PRESSURE ANGLE \_\_\_\_\_ 45°  
 BASE Ø \_\_\_\_\_ .5597 REF  
 PITCH Ø \_\_\_\_\_ .7916 REF  
 MAJOR Ø \_\_\_\_\_ .850 - .859  
 FORM Ø \_\_\_\_\_ .835  
 MINOR Ø \_\_\_\_\_ .767 - .772  
 CIRCULAR SPACE WIDTH \_\_\_\_\_ .0764  
 EFFECTIVE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



**MOTOR WEIGHT: 50 LBS  
CLASS "H" INSULATION  
PERFORMANCE SPEC: 33**

<b>D&amp;D MOTOR SYSTEMS INC.</b>			
SYRACUSE, N.Y.			
<b>A2</b>	<b>Model # ES-61A-33</b>		<b>A1</b>
<b>F2</b>	Mfg. Date	Serial #	Rating
	XXXXXX	XXXX	CLASS-H
			Voltage
			XX
			MADE IN U.S.A.

**TORQUE SPECIFICATION FOR  
POWER CABLE SECURING TOP NUTS  
5/16-18 UNC (A1 / A2) - 110 IN / LBS MAX  
1/4-20 UNC (F1 / F2) - 50 IN / LBS MAX**



**ELECTRICAL WIRING DIAGRAM**

**MOTOR WIRING CONNECTIONS:  
CW ROTATION DRIVE END  
CONNECT A1 & F1 TO ONE BATTERY TERMINAL  
CONNECT A2 & F2 TO OTHER BATTERY TERMINAL  
CCW ROTATION DRIVE END  
SWITCH F1 & F2 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	12-15-04		ES-61A-33	R3
SCALE	STF	DRAWN BY	MJG	REV DATE
				5-10-13