

SPRING ANALYSIS OUTPUT
14 May 1985

10:05:25

For:

ROUND MUSIC WIRE WITH PLAIN ENDS

OUTSIDE DIAMETER..... .109+/- .004
WIRE DIAMETER..... .022+/- .0003
HOLE DIAMETER..... .112
PIN DIAMETER..... 0.000
TOTAL TURNS..... 19.0
ACTIVE TURNS..... 19.0
FREE LENGTH..... .650+/- .030
SOLID HEIGHT..... .440+/- .006
WAHL CORRECTION FACTOR... 1.41
SPRING RATE..... 26.91
DIA. CHANGE FL to SH..... .0005
MEAN DIAMETER..... .087
SPRING INDEX..... 3.95

STRESS AND LOAD:

LOAD AT .560in..... 2.422
EXPECTED LOAD VARIATION... 2.25 TO 2.59
STRESS AT .560in..... 71830.4
LOAD AT .545in..... 2.026
EXPECTED LOAD VARIATION... 2.63 TO 3.02
STRESS AT .545in..... 82868.8
FORCE TO SOLID..... 5.65
STATIC STRESS AT SOLID.... 165737.5
TOTAL STRESS AT SOLID.... 165737.5
ENERGY..... .04
TENSILE STRENGTH..... 341995.6
DESIGN STRESS AS 62%..... 212037.3
TOTAL STRESS AS
PERCENT OF TENSILE STRESS. 48.5

TR166. SPR

5.14.85