

SPRING ANALYSIS OUTPUT
26 Apr 1984

15:30:39

For:
ROUND MUSIC WIRE WITH SQUARED AND GROUND ENDS

OUTSIDE DIAMETER..... .210+/- .008
WIRE DIAMETER..... .034+/- .0004
HOLE DIAMETER..... .220
PIN DIAMETER..... .125
TOTAL TURNS..... 8.0
ACTIVE TURNS..... 6.0
FREE LENGTH..... .480+/- .015
SOLID HEIGHT..... .272+/- .003
WAHL CORRECTGION FACTOR... 1.30
SPRING RATE..... 58.73.
DIA. CHANGE FL to SH..... .0015
MEAN DIAMETER..... .176
SPRING INDEX..... 5.18 ✓

STRESS AND LOAD:

LOAD AT .375in..... 6.166
EXPECTED LOAD VARIATION... 5.55 TO 6.78
STRESS AT .375in..... 91294.1
LOAD AT .340in..... 8.222
EXPECTED LOAD VARIATION... 7.40 TO 9.04
STRESS AT .340in..... 121725.5
FORCE TO SOLID..... 12.22
STATIC STRESS AT SOLID.... 180849.3 ✓
TOTAL STRESS AT SOLID..... 180849.3 -
ENERGY..... .25
TENSILE STRENGTH..... 319820.2
DESIGN STRESS AS 65%..... 207883.1
TOTAL STRESS AS
PERCENT OF TENSILE STRESS. 56.5

SEAR SPRING

MAKE - Z -

W.D. C. 5003 - 314 - y

F. MARTIN

..125 16.5 T.P.I.