

FIRING PIN SPRING

SPRING ANALYSIS OUTPUT
27 Mar 1985

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For:
ROUND MUSIC WIRE WITH PLAIN ENDS

OUTSIDE DIAMETER..... .400+/- .020
WIRE DIAMETER..... .053+/- .0004
HOLE DIAMETER..... .455
PIN DIAMETER..... .287
TOTAL TURNS..... 38.0
ACTIVE TURNS..... 38.0
FREE LENGTH..... 5.070+/- .093
SOLID HEIGHT..... 2.067+/- .016
WAHL CORRECTGION FACTOR... 1.23
SPRING RATE..... 7.14
DIA. CHANGE FL to SM..... .0032
MEAN DIAMETER..... .347
SPRING INDEX..... 6.55

STRESS AND LOAD:
LOAD AT 2.700in..... 16.931
EXPECTED LOAD VARIATION... 15.75 TO 18.12
STRESS AT 2.700in..... 123510.0
LOAD AT 2.270in..... 20.003
EXPECTED LOAD VARIATION... 18.60 TO 21.40
STRESS AT 2.270in..... 145928.4
FORCE TO SOLID..... 21.45
STATIC STRESS AT SOLID.... 156508.2
TOTAL STRESS AT SOLID.... 156508.2
ENERGY..... 7.94
TENSILE STRENGTH..... 298686.2
DESIGN STRESS AS 62%..... 105185.4
TOTAL STRESS AS
PERCENT OF TENSILE STRESS. 52.4