

SPRING ANALYSIS OUTPUT
1 May 1985

15:30:36

NBR2
TRGG. AOS

For:
ROUND MUSIC WIRE WITH SQUARED AND GROUND ENDS

OUTSIDE DIAMETER..... .102+/- .004
WIRE DIAMETER..... .021+/- .0003
HOLE DIAMETER..... .105
PIN DIAMETER..... 0.000
TOTAL TURNS..... 18.0
ACTIVE TURNS..... 16.0
FREE LENGTH..... .599+/- .030
SOLID HEIGHT..... .378+/- .005
WAHL CORRECTGION FACTOR... 1.42
SPRING RATE.....32.88
DIA. CHANGE FL to SH..... .0007
MEAN DIAMETER..... .081
SPRING INDEX..... 3.86

STRESS AND LOAD:

LOAD AT .585in..... .468
EXPECTED LOAD VARIATION... .44 TO .50
STRESS AT .585in..... 14818.0
LOAD AT .400in..... 6.550
EXPECTED LOAD VARIATION... 6.09 TO 7.01
STRESS AT .400in..... 207451.4
FORCE TO SOLID..... 7.27
STATIC STRESS AT SOLID.... 230359.1
TOTAL STRESS AT SOLID.... 230359.1
ENERGY..... .65
TENSILE STRENGTH..... 344454.5
DESIGN STRESS AS 62%..... 213561.0
TOTAL STRESS AS
PERCENT OF TENSILE STRESS. 66.9

SPRING ANALYSIS OUTPUT

1 May 1985

15:36:27

For:

ROUND MUSIC WIRE WITH PLAIN AND GROUND ENDS

OUTSIDE DIAMETER..... .102+/- .004
WIRE DIAMETER..... .021+/- .0003
HOLE DIAMETER..... .105
PIN DIAMETER..... 0.000
TOTAL TURNS..... 17.0
ACTIVE TURNS..... 16.5
FREE LENGTH..... .599+/- .030
SOLID HEIGHT..... .360+/- .005
WAHL CORRECTGION FACTOR... 1.42
SPRING RATE.....31.88
DIA. CHANGE FL to SH..... .0008
MEAN DIAMETER..... .081
SPRING INDEX..... 3.86

STRESS AND LOAD:

LOAD AT .585in..... .454
EXPECTED LOAD VARIATION... .42 TO .49
STRESS AT .585in..... 14368.9
LOAD AT .400in..... 6.352
EXPECTED LOAD VARIATION... 5.91 TO 6.80
STRESS AT .400in..... 201165.0
FORCE TO SOLID..... 7.39
STATIC STRESS AT SOLID.... 233980.5
TOTAL STRESS AT SOLID.... 233980.5
ENERGY..... .63
TENSILE STRENGTH..... 344454.5
DESIGN STRESS AS 62%..... 213561.8
TOTAL STRESS AS
PERCENT OF TENSILE STRESS. 67.9

TRIGGER ADJ

SPRING ANALYSIS OUTPUT
1 May 1985

15:38:58

For:
ROUND MUSIC WIRE WITH PLAIN AND GROUND ENDS

OUTSIDE DIAMETER..... .102+/- .004
WIRE DIAMETER..... .022+/- .0003
HOLE DIAMETER..... .105
PIN DIAMETER..... 0.000
TOTAL TURNS..... 17.5
ACTIVE TURNS..... 17.0
FREE LENGTH..... .599+/- .030
SOLID HEIGHT..... .396+/- .005
WAHL CORRECTGION FACTOR... 1.45
SPRING RATE.....38.69
DIA. CHANGE FL to SH..... .0007
MEAN DIAMETER..... .080
SPRING INDEX..... 3.64

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STRESS AND LOAD:
LOAD AT .585in..... .551
EXPECTED LOAD VARIATION... .51 TO .59
STRESS AT .585in..... 15311.5
LOAD AT .400in..... 7.708
EXPECTED LOAD VARIATION... 7.17 TO 8.25
STRESS AT .400in..... 214360.8
FORCE TO SOLID..... 7.86
STATIC STRESS AT SOLID.... 218664.6
TOTAL STRESS AT SOLID..... 218664.6
ENERGY..... .76
TENSILE STRENGTH..... 341995.6
DESIGN STRESS AS 62%..... 212037.3
TOTAL STRESS AS
PERCENT OF TENSILE STRESS. 63.9