RECOMMENDATIONS

Chapter	Page	Item	Issue
5	202	Table 5.1	Why not give a complete set of beam loadings and deflections like Shigley and many others do? Singularity functions are tedious and someone has already solved them for all common loadings.
6	245	DET	Why not give the expression for SigmaE in terms of direct stresses for biaxial/surface stresses? SigmaE = Sqrt(SigmaX^2 + SigmaY^2 - SigmaX*SigmaY + 3TauXY^2) It is a lot simpler than first calculating principal stresses, and it is later shown on page 284, line 4, buried in Example 7.3.
7	277	Fig 7.7	Why not add large labels "Ferrous Alloys", "Aluminum Alloys", and "Polymers" to the right of the figures instead of burying this information in the fine print down below?
7	278	Eqn. 7.7	Add "or 100 ksi maximum" to be consistent with Fig. 7.8
7	285	Eqn. 7.21	Emphasize two things: 1. the "e" is not the exponential, and 2. that Sut is either in KSI or MPa. Why use "e" as a variable?
10	414	Eqn. 10.34	Emphasize that the density is the mass density, not weight density.
10	415	Example 10.5	The concept of rotation separating press fits is too important to bury in an example. Just explain that you treat the two tubes as one solid tube and calculate the radial stress at the interface radius.
10	422	Example 10.9	Note that the tube expands "in length" by 0.008 in.
11	437	Fig. 11.1	Also show a plot of combined moments = Sqrt(My^2 + Mz^2)
11	460	Table 11.4	These holding forces are about 1/3 of the numbers that the Unbrako Engineering Guide gives.
12	515		Note that bearing power loss is mu*Wr*rb*Omegab in Watts or Lb.In/Sec
16	715	Eqn. 16.10	Since ThetaN is so close to Beta/2 (as shown in Examples 16.2, 16.3, and 16.5) why not simplify this to just use cos(Beta/2) instead of cos(ThetaN)?
16	732	Table 16.9	Add a "Screw Number" column to the left showing that the top ten rows correspond to numbers 0, 1, 2, 3, 4 ,5 ,6, 8, 10, and 12 screws. It could continue 1/4, 5/16, 3/8, …
17	782	Eqn. 17.2	Don't bury "…Ap in megapascals requires d to be in millimeters" in the text three lines below the equation.
17	783	Table 17.2	Show a plot of the Sut of these five materials versus wire diameter. It is impossible to visualize the effect of wire size without a plot.
17	787	Eqn. 17.7	Explain why this is the average P/A flat distribution and not as in Fig. 4.25 with zero at surfaces and 4V/3A peak at neutral axis.
17	788	Eqn. 17.11	Mention that this is also known as the Bergsträsser factor.
17	789	Eqns. 17.18 & 17.19	It confuses students to have two expressions for the spring rate. If 17.19 the the general one, and 17.18 is a special case for large C, then say so.
17	791	Table 17.3	It would be better to make line 2 expressions for Na in terms of Nt. Add a note that the pitch applies ONLY for the spring at its free, undeflected length.
17	791	Fig. 17.5	ga is shown but never mentioned or defined in SYMBOLS list.
17	793	Eqn. 17.21	Emphasize that rho is mass density.
17	800	Eqn. 17.31	Text says "all coils are active", then sets Nt = Na + 1! Norton clearly says "All coils are considered active, but one coil is typically added to the number of active coils to obtain the body length."
17	805	Eqn. 17.44	Show units of Newton meters/Revolution
17	814	Fig. 17.16	Students can't figure out how this thing works. Why not show a couple of positions?
19	884	Table 19.4	Clearly state that Loss in arc = 2 Alpha
19	885	Table 19.5	Why not add large labels "2L", "3L", and "4L" to the right of the figures instead of burying this information in the fine print up top?
19	886	Table 19.6	Again, clearly label the upper set as "3L" and lower as "4L".
19	896	Table 19.10	Make a note that the left digits of Chain number times 1/8" equal the pitch. Ex. Number 40 chain is 4/8 = 0.5" pitch.
19	898	Line 15	Are rolling chains almost always smaller than the 1/4 (in.) pitch? Bicycle chains are number 40, 1/2" pitch - it's hard to imagine a lot of use of chains smaller than that.