```
function [Kt_bending,Kt_torsion] = interpFatigue(D,d)
DdTorsionVec = [2,1.33,1.2,1.09];
ATorsionVec = [0.86331, 0.84897, 0.83425, 0.90337];
bTorsionVec = [-.23865, -.23161, -.21649, -.12692];
DdBendingVec = [6,3,2,1.5,1.2,1.1,1.07,1.05,1.03,1.02,1.01];
ABendingVec =
     [ 0.87868, 0.89334, 0.90879, 0.93836, 0.97098, 0.95120, 0.97527, 0.98137, 0.98061, 0.96048, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.9709808, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.97098, 0.970
bBendingVec =
    [-.33243, -.30860, -.28598, -.25759, -.21796, -.23757, -.20958, -.19653, -.18381, -.17711,
r = 0.05;
rd = r/d;
Dd = [D/d];
ATorsion = interp1(DdTorsionVec,ATorsionVec,Dd);
bTorsion = interp1(DdTorsionVec,bTorsionVec,Dd);
ABending = interp1(DdBendingVec,ABendingVec,Dd);
bBending = interp1(DdBendingVec,bBendingVec,Dd);
Kt_torsion = ATorsion*rd^bTorsion;
Kt_bending = ABending*rd^bBending;
end
```

Published with MATLAB® R2020a