

CEEN 3311 – Strength of Materials
Spring 2022
Homework #4B
Due: Monday, 03/21/2022

Download the spreadsheet “Data 1095HR.xls” from the Homework folder on the Blackboard. This spreadsheet contains strain (in/in) and load (lbs) data for a 1095 HR (hot-rolled) steel. The data contained in this spreadsheet resulted from a tensile test of a 1095 HR steel specimen of original diameter 0.505 in. Create a stress-strain diagram for 1095 HR steel using this data. Use Excel or another computer program to generate a stress-strain diagram. Determine (i) the yield stress and (ii) Young’s modulus of the material. Describe how to determine them in detail referring to ASTM standard. Prepare your report by hand writing but attach the printed stress-strain diagram at the end of the report.