

Modern engineering thermodynamics and applications

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The US and English are not that much different despite the few differences. Given the larger miles that the US locomotives have to cover they possess larger engines with larger capacities. The designs are also different given the vast environmental influences on their operations.

Uniform load in bridge-building is a way in which load is spread over a beam so that each unit of length has equal weight. This means the COG of such a bridge is balanced hence cannot topple. A specific force is calculated as a non-gravitational force per unit mass (Balmer pg. 78).

Eads applied his equations in the cantilever form while constructing the bridge. The equation involved the testing of every part ensuring adherence to the rigid specifications concerning 'elastic limits' and 'modulus of elasticity.'

Purification of iron ore involves heating of coke to about 1500 degrees centigrade by pumping hot air. This makes the rocky impurity in the ore to react with limestone forming calcium silicate which will float on the surface of molten iron (Balmer pg. 46).