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Cool! I'am really happy

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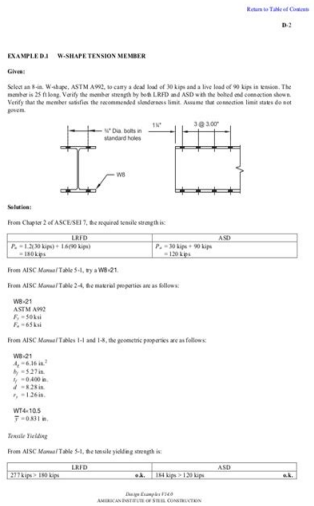
#Diego Butler

so many fake sites. this is the first one which worked! Many thanks



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D-2

EXAMPLE D.1 W-SHAPE TENSION MEMBER

Given:

Select an 8-in. W-shape, ASTM A992, to carry a dead load of 30 kips and a live load of 90 kips in tension. The member is 25 ft long. Verify the member strength by both LRFD and ASD with the bolted end connection shown. Verify that the member satisfies the recommended slenderness limit. Assume that connection limit states do not govern.

Solution:

From Chapter 2 of ASCE/SEI 7, the required tensile strength is:

LRFD	ASD
P_u = 1.2(30 kips) + 1.6(90 kips) = 180 kips	P_a = 30 kips + 90 kips = 120 kips

From AISC *Manual* Table 5-3, try a WR-21.

From AISC *Manual* Table 2-4, the material properties are as follows:

WR-21
ASTM A992
F_y = 50 ksi
F_u = 65 ksi

From AISC *Manual* Tables 1-1 and 1-8, the geometric properties are as follows:

WR-21
A_g = 6.16 in.^{2}
b_f = 5.27 in.
t_f = 0.400 in.
d = 8.28 in.
r_x = 1.24 in.

WT4-10.5
$\overline{Y}$ = 0.831 in.

Tensile Yielding

From AISC *Manual* Table 5-3, the tensile yielding strength is:

LRFD	ASD
277 kips > 180 kips o.k.	184 kips > 120 kips o.k.

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