SPREADER BAR

I.D. Nº 11 COLOR OF BAR : Red

LOAD CAPACITY PAINTED ON BAR 7 TONS.

DATE CAP. & I.D. Nº PAINTED ON BAR Aug. 1988

DATE OF LAST LOAD TEST. Aug 7, 1988

TEST LOAD WEIGHT 8.1 TONS

TEST LOAD % 115.7%

STRESS CALCULATIONS :

DONE BY Bosck & Miranda

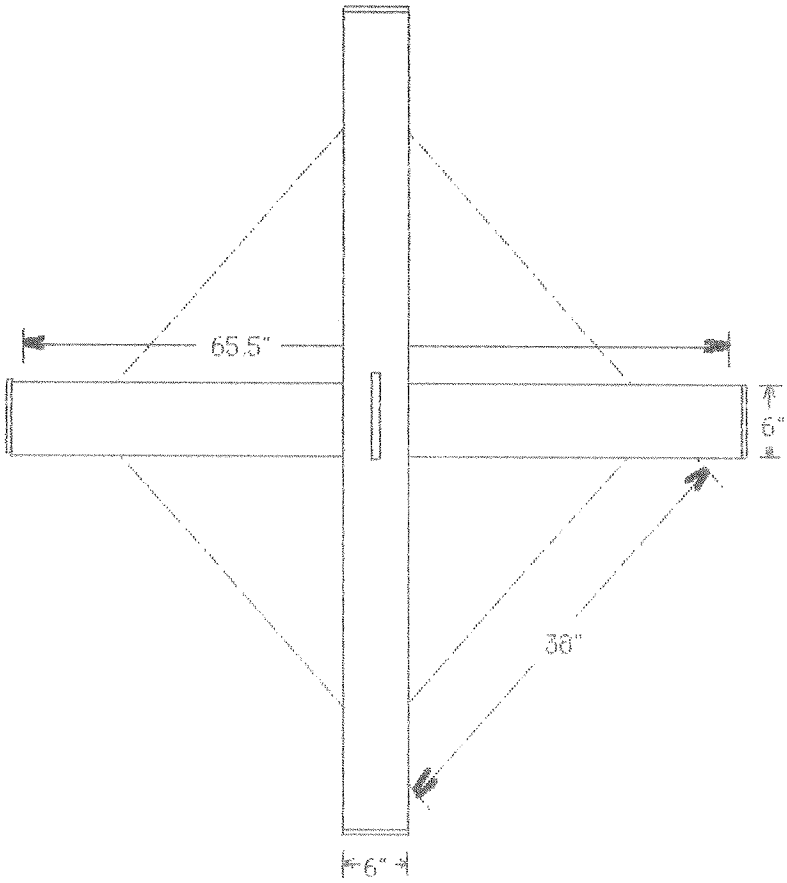
DATE Aug. 1988

REMARKS :

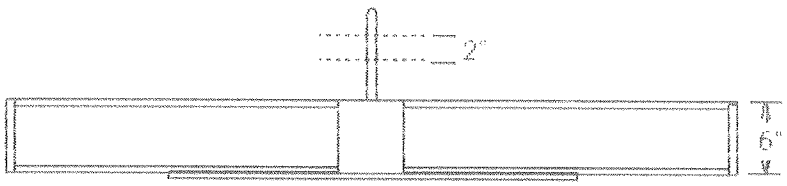
I.D. # 11
TESTED 8-5-88

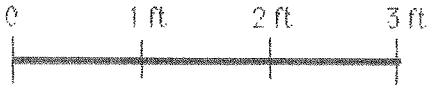
Red 911

Top



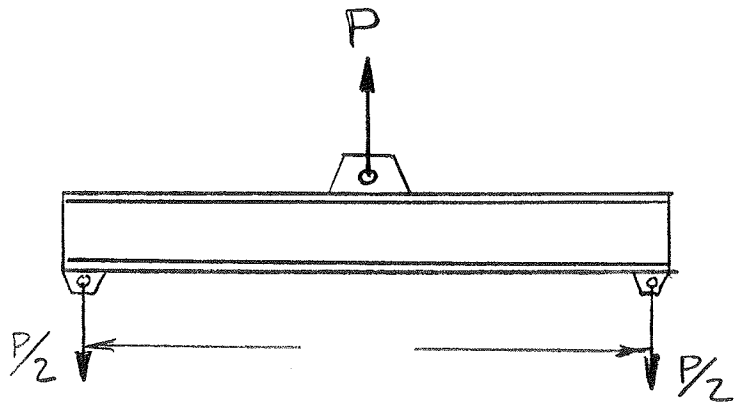
Side





scale: 3/4" = 1'

SPREADER BAR Nº 11 PAINT COLOR Red



BEAM SIZE W6X15.5

$d =$ 6 in

$L =$ 65.5 in

$d/A_f =$ 3.72

$S_x =$ 14 in³

$t_w =$ 0.23 in

$A_w = d \cdot t_w =$ 1.41 in²

$M = \frac{PL}{4} =$ 16.375P

$V = \frac{P}{2}$

BENDING STRESS:

$F_{b\ ALLOW} =$ 12,000 psi

OR $F_{b\ ALLOW} = \frac{12 \times 10^6}{L \cdot d/A_f} = \frac{12 \times 10^6}{(65.5)(3.72)} =$ 49,249 psi } USE THE LEAST

$\therefore f_{b\ MAX} = \frac{M}{S_x} = \frac{16.375P}{14} = 12{,}000$ psi $P =$ 7328 lbs X 2 = 14.66 tons

SHEAR STRESS:

$F_{V\ ALLOW} = .4\ F_y =$ 4800 psi

$\therefore f_{V\ MAX} = \frac{V}{A_w} =$ $V =$ 13,556 lbs

SUMMARY:

$\therefore P =$ 7.33 TONS

Field Data

Red #11