

SPREADER BAR

I.D. N<sup>o</sup> 16 COLOR OF BAR: \_\_\_\_\_

LOAD CAPACITY PAINTED  
ON BAR 2100 <sup>LBS.</sup> ~~TONS.~~

DATE CAP. & I.D. N<sup>o</sup> PAINTED  
ON BAR 3-1-89

DATE OF LAST LOAD  
TEST. 3-10-89

TEST LOAD WEIGHT 2700 <sup>LBS</sup> ~~TONS~~ (2) "K"  
BLOCKS

TEST LOAD % 128.5%

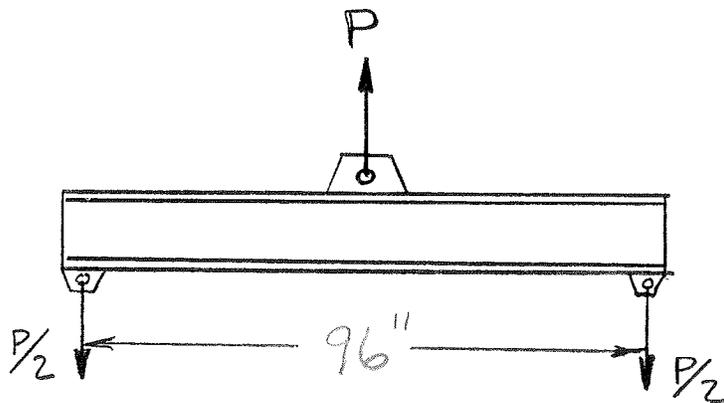
STRESS CALCULATIONS:

DONE BY N. BOSEK

DATE 2-20-89

REMARKS:

SPREADER BAR N<sup>o</sup> 16 PAINT COLOR \_\_\_\_\_



BEAM SIZE CHANNEL PAIR 4" x 1.700 FLANGE STEEL

$$d = \underline{4}$$

$$A_w = 4 \cdot t_w = \underline{2.568}$$

$$L = \underline{96}$$

$$d/A_f = \underline{7.84 \div 2}$$

$$M = \frac{PL}{4} = \underline{24P}$$

$$S_x = \underline{2.29 \times 2}$$

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

$$t_w = \underline{.321 \times 2}$$

BENDING STRESS :

$$F_b \text{ ALLOW} = 12,000 \text{ psi}$$

$$\text{OR } F_b \text{ ALLOW} = \frac{12 \times 10^6}{L \cdot d/A_f} = \frac{12 \times 10^6 \times 2}{96 \times 7.84} = \underline{31888}$$

} USE THE  
LEAST

$$\therefore f_b \text{ MAX} = \frac{M}{S_x} = 12000 = \frac{24P}{2.29 \times 2} \quad P = 2290 \text{ lb}$$

SHEAR STRESS :

$$F_v \text{ ALLOW} = \frac{.4 F_y}{3} = 4800 \text{ psi}$$

$$\therefore f_v \text{ MAX} = \frac{V}{A_w} = 4800 = \frac{P}{2 \times 2.568} \quad P = 24653 \text{ lb.}$$

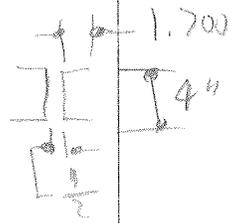
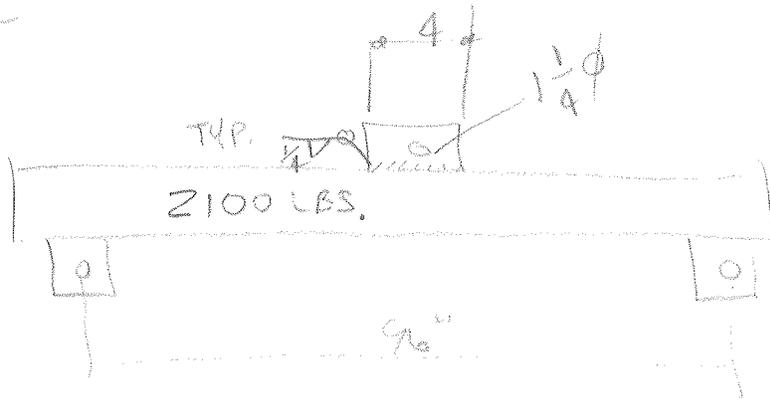
SUMMARY :

$$\therefore P = \underline{\hspace{2cm}} \text{ TONS}$$

BAR N<sup>o</sup> 16

NB 2-16-89

STEEL





I.D.# 16      LOAD: 2,700#  
TWO-"K"-BLOCKS      RATING: 2,100# 129%  
CHARLES PAUL  
#6801 3/10/89



I.D.# 16      LOAD: 2,700#  
TWO-"K"-BLOCKS      RATING: 2,100# 129%  
CHARLES PAUL  
#6801 3/10/89