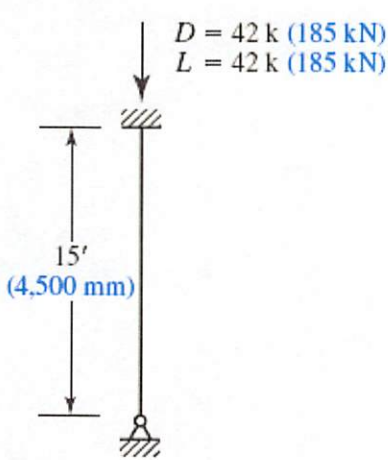


4.6-4 Select a steel pipe of A53 Grade B steel ( $F_y = 35 \text{ ksi (240 MPa)}$ ). Specify whether your selection is Standard, Extra-Strong, or Double-Extra Strong.



$$K = 0.8 \quad \lambda = KL = 0.8(15 \text{ ft}) = 12'$$

LRFD  $P_u = 1.2D + 1.6L = 1.2(42 \text{ k}) + 1.6(42 \text{ k}) = 117.6 \text{ k}$

TABLE 4-6 (4-102) PIPE 5 X-STR	132 k	20.8 lb/ft
<u>PIPE 6 STD</u>	133 k	19.0 lb/ft

ASD  $P_u = D + L = 42 \text{ k} + 42 \text{ k} = 84 \text{ k}$

TABLE 4-6 (4-102) PIPE 4 XX-STR	92.7 k	27.6 lb/ft
PIPE 5 X-STR	88.1 k	20.8 lb/ft
<u>PIPE 6 STD</u>	88.4 k	19 lb/ft