

BASIC RIGGING FORMULAS

① DISTANCE TO THE LEAD BLOCK

$$\text{DRUM WIDTH (IN M)} \times \text{FLEET ANGLE FACTOR}$$

FLEET ANGLE FACTORS

$$\text{GROOVED} = 6$$

$$\text{UN GROOVED} = 9.5$$

② LEAD ROPE LOAD

A) BECKET LOAD

$$\text{LOAD} \div \text{PARTS IN PURCHASE} = \text{BECKET LOAD}$$

B) LOAD IN LEAD ROPE

$$\left(\text{BECKET LOAD} \times \text{FRICTION ALLOWANCE} \times \text{\# OF SHEAVES IN SYSTEM} \right) + \text{BECKET LOAD} = \text{LRL}$$

③ TOTAL HEAD LOAD

$$\text{LOAD} + \text{LEAD ROPE LOAD}$$

④ SUPPORT SLING HEAD LOAD

$$\text{LEAD ROPE LOAD} \times \text{ANGLE FACTOR}$$

ANGLE FACTORS

$$45^\circ = 1.91$$

$$60^\circ = 1.73$$

$$90^\circ = 1.41$$

$$120^\circ = 1$$

⑤ DIA OF FSWR ON WINCH

$$\text{LEAD ROPE LOAD} \div \text{MATERIAL FACTOR} = \sqrt{\text{ANSWER}}$$

MATERIAL FACTORS

$$\text{FSWR} = 8$$

$$\text{G80 CHAIN} = 32$$