RESULTANT OF PIN E POSITION 1 3061.25#
RESULTANT OF PIN E POSITION 2 1925.40#
RESULTANT OF PIN E POSITION 3 735.747#

RESULTANT OF PIN D,F POSITION 1 3943.00#
RESULTANT OF PIN D,F POSITION 2 2886.37#
RESULTANT OF PIN D,F POSITION 3 1380.09#

RESULTANT OF PIN C,A POSITION 1 3159.81#
RESULTANT OF PIN C,A POSITION 2 1865.80#
RESULTANT OF PIN C,A POSITION 3 1861.32#

RESULTANT OF PIN B POSITION 1 3321.50#
RESULTANT OF PIN B POSITION 2 2658.52#
RESULTANT OF PIN B POSITION 3 2819.21#

4140HR ULTIMATE STRENGTH 89000 PSI YEILD STRENGTH 69000PSI.
PINS A,C,D,F ARE ∅1" PREDETERMINED BY CYLINDER MANUFACTURE
PINS E,B WILL BE DESIGNED BY A SAFTEY FACTOR OF 5. LARGEST
FORCE BETWEEN PINS E,B IS 3321.50# IN ALL POSITIONS.
60% OF ULTIMATE=SHEAR STRENGTH = 53400PSI

$$S_S = \frac{F}{N\left(\frac{\pi D^2}{4}\right)} \qquad S_S = 8526.28PSI = \frac{3321.50\#}{2\left(\frac{\pi}{4}.498^2\right)}$$

$$\frac{53400 \; PSI}{8526.28PSI} = N_Y = SAFETY \; FACTOR = 6.26$$

∅1/2" 4140 PIN CAN BE
USED.