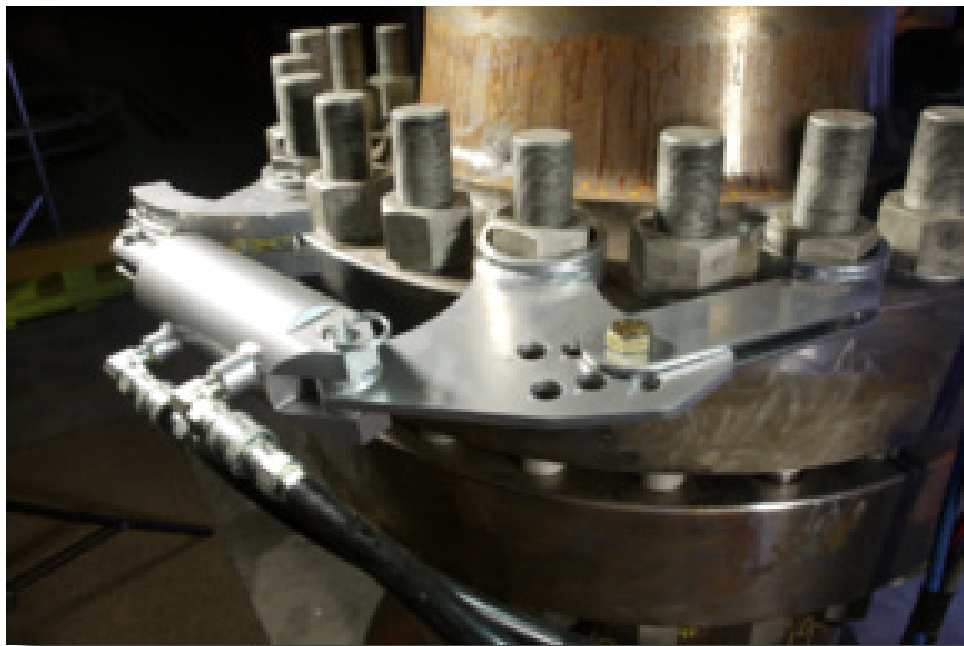


# ThinLINE TLH110-4



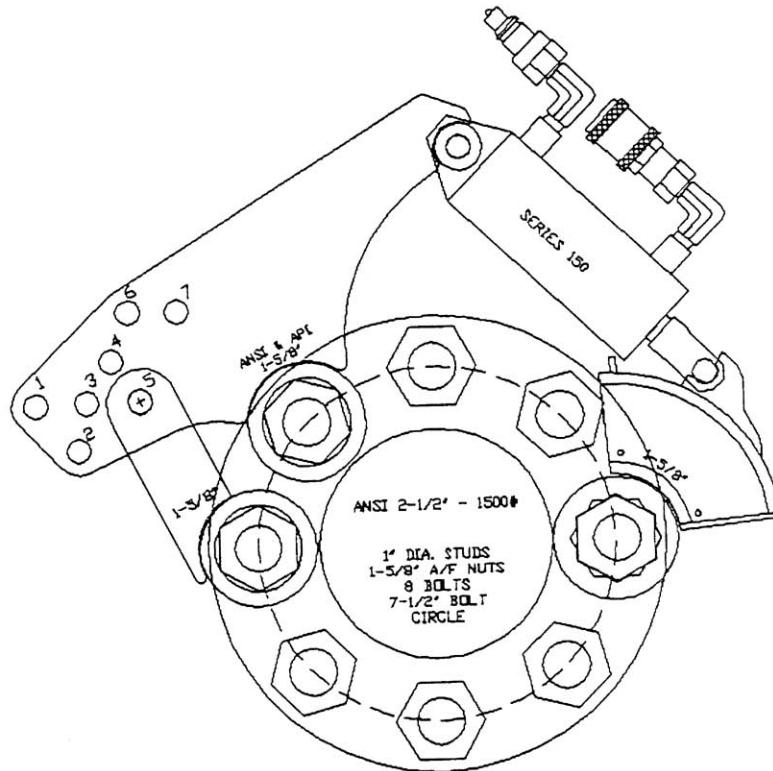
## Bolt Patterns Guide

LEADING PROVIDER OF BOLT LOADING & REMOVAL SOLUTIONS

Products and Prices are subject to updates and changes. Please contact us for current quote.

2013

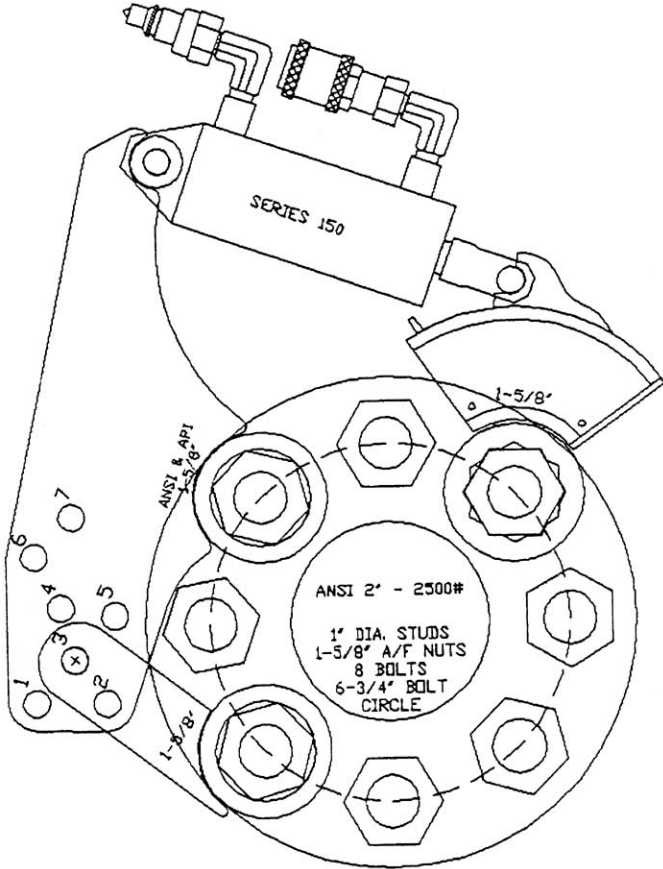
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



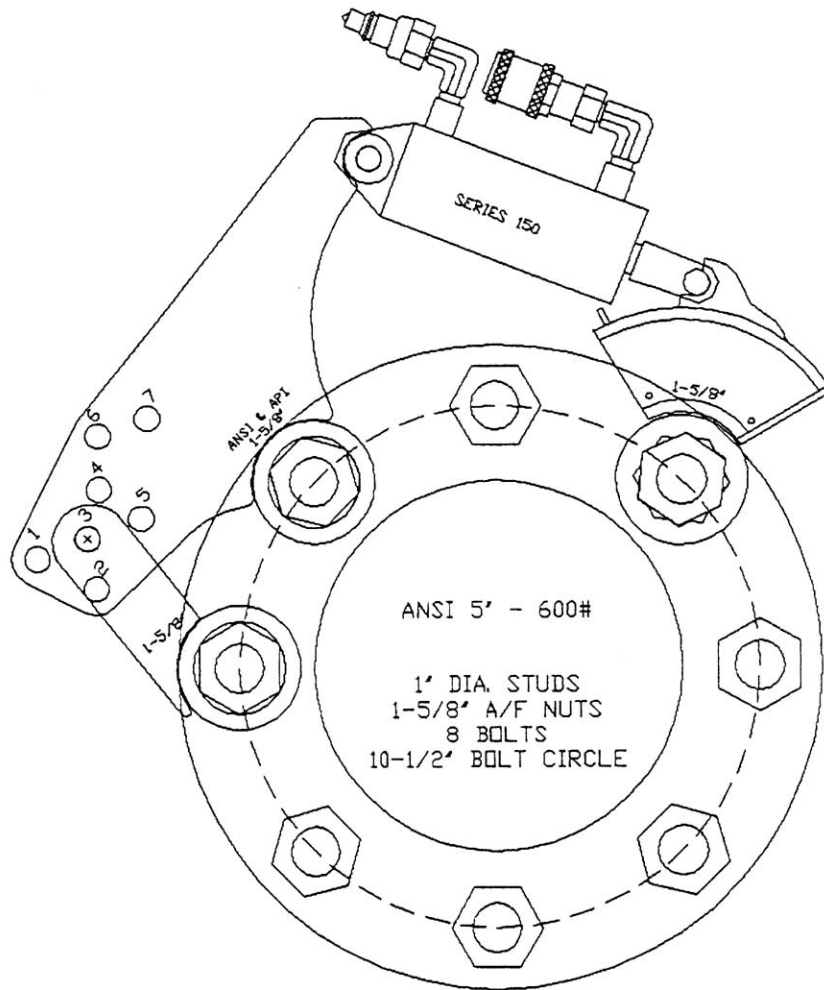
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



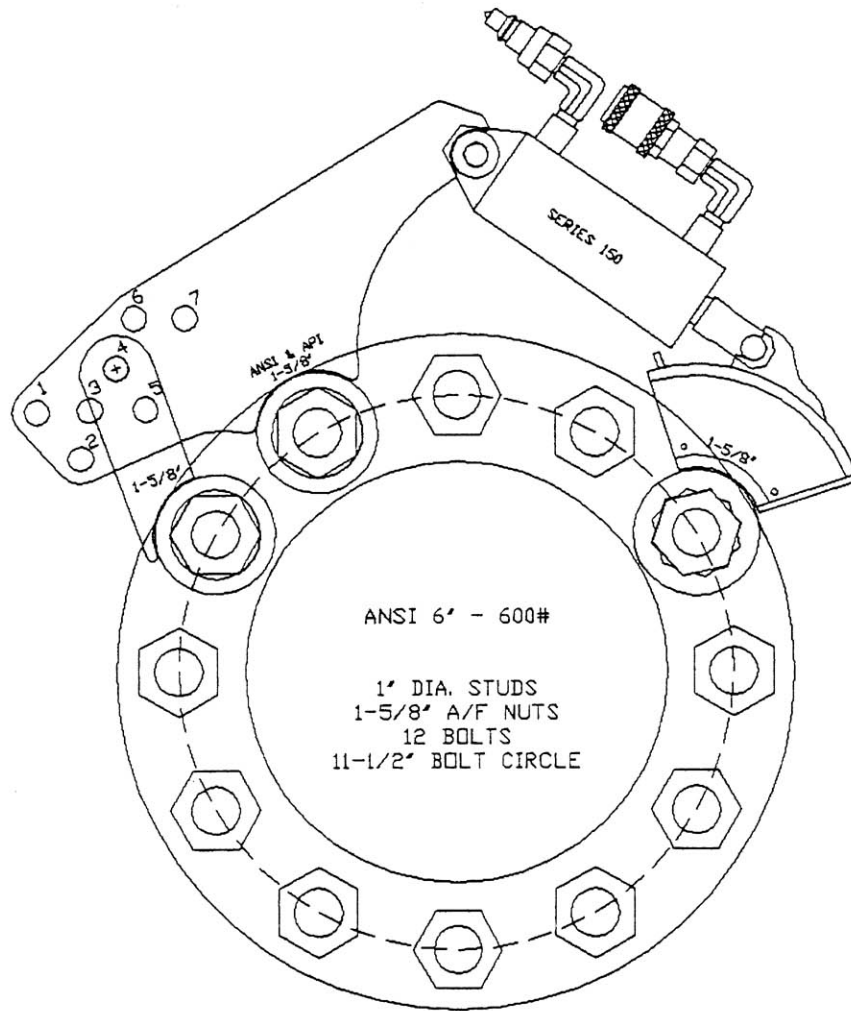
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



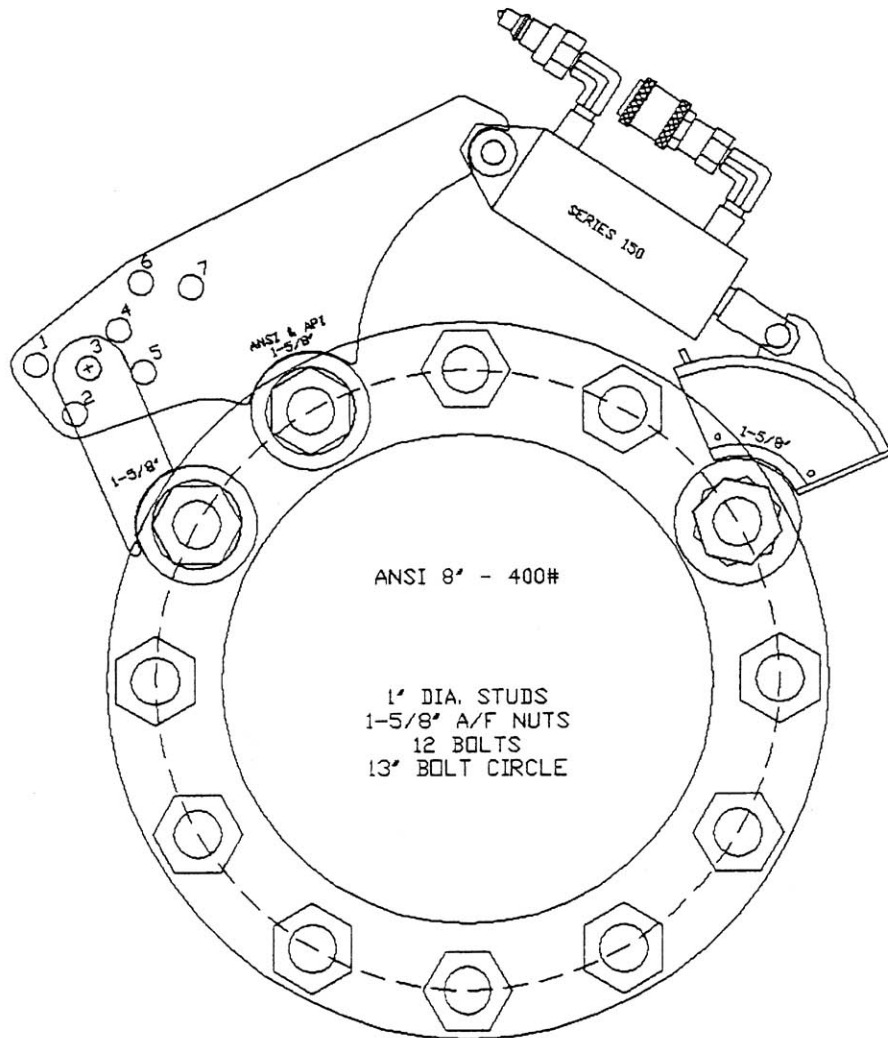
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



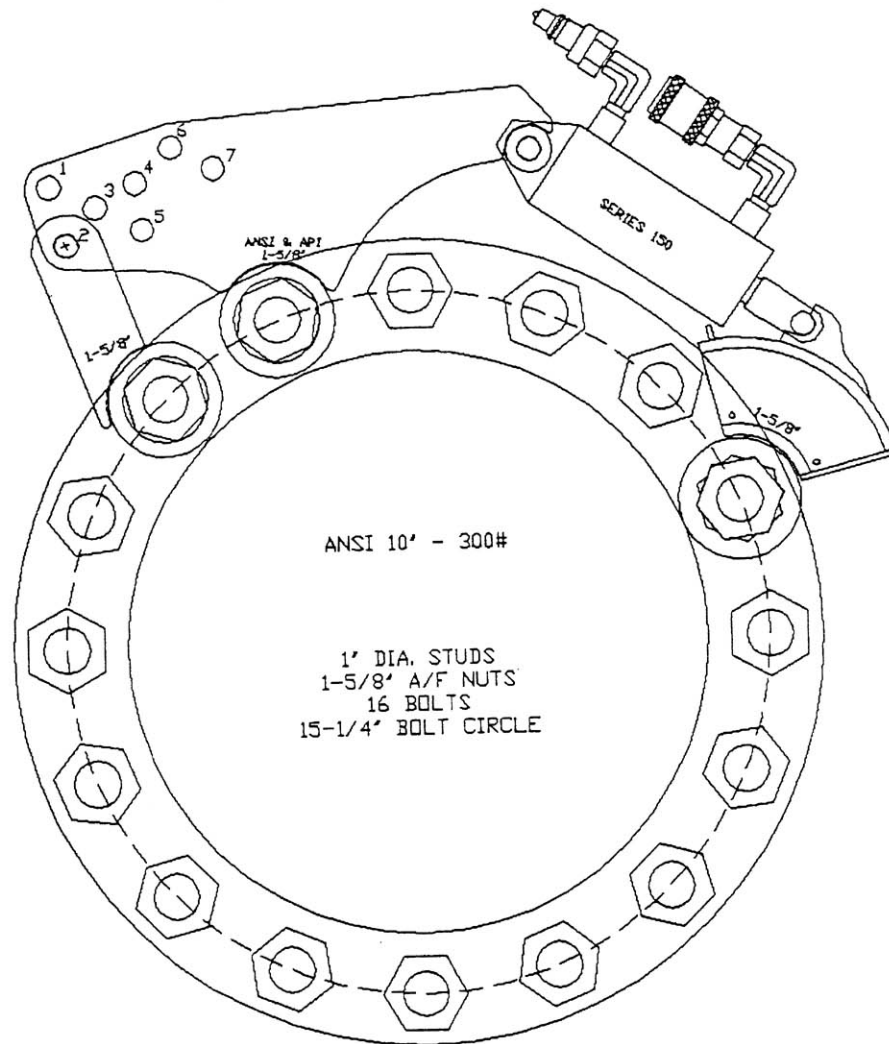
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



# ThinLINE TLH110-4

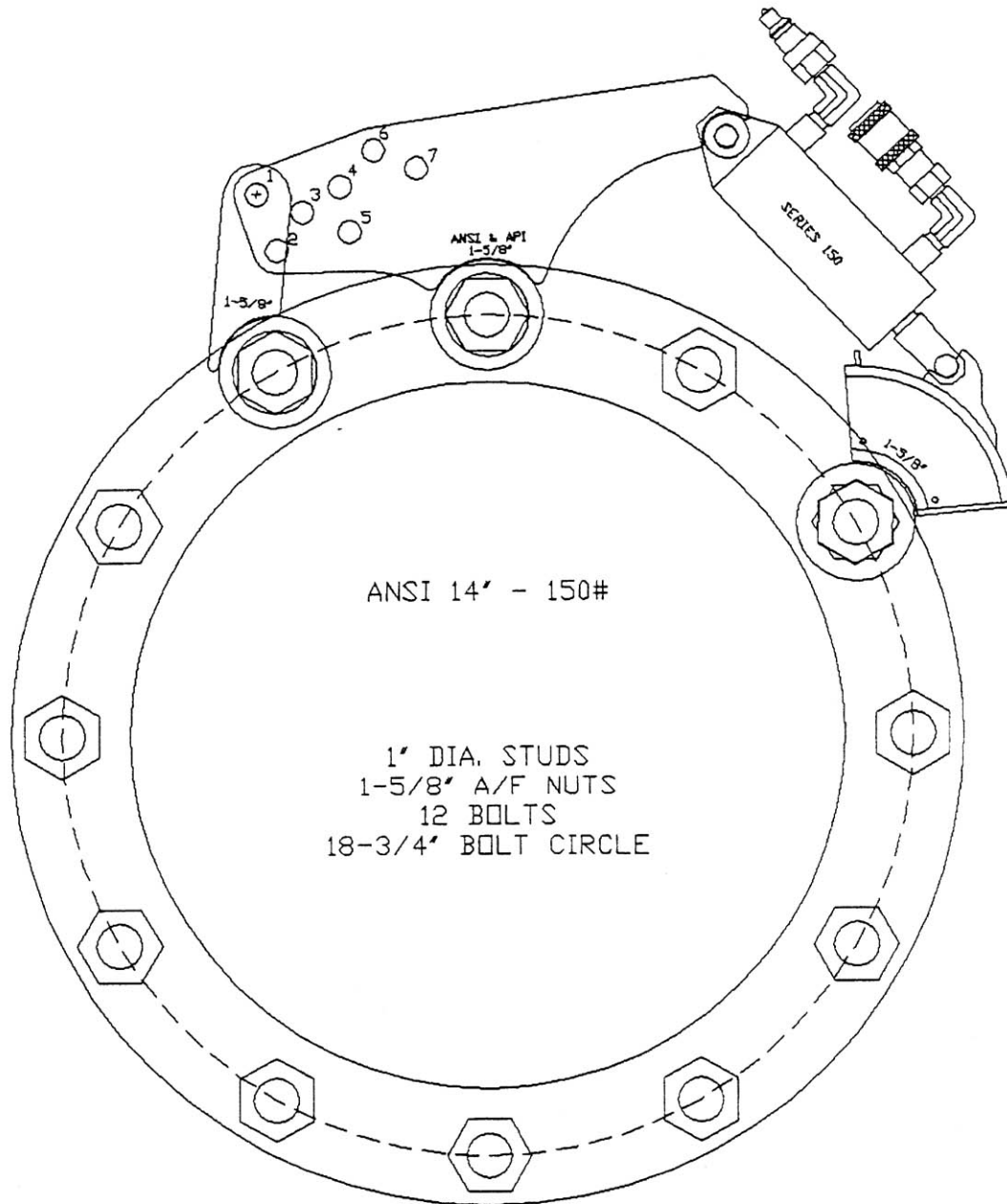


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





# ThinLINE TLH110-4

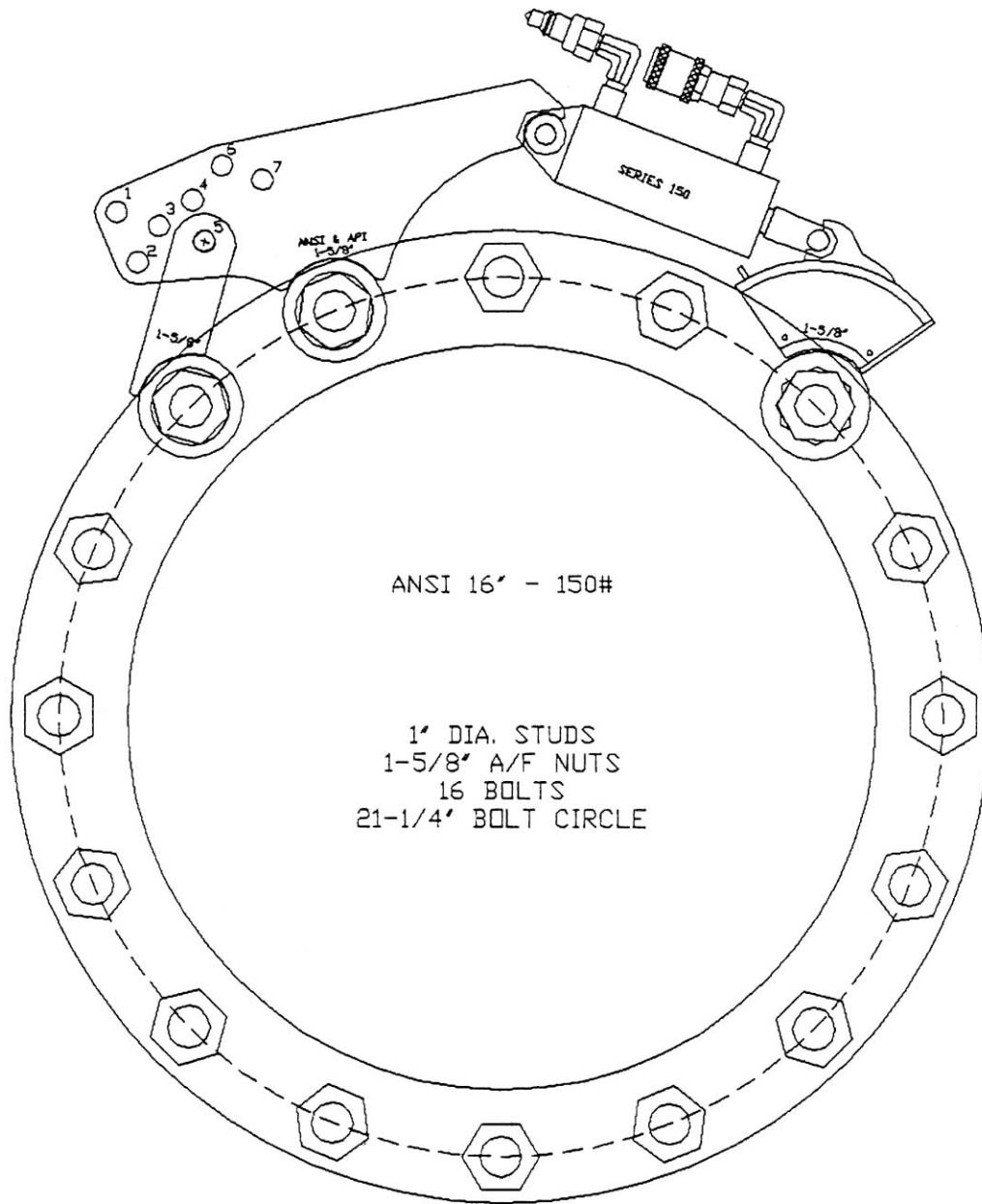


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





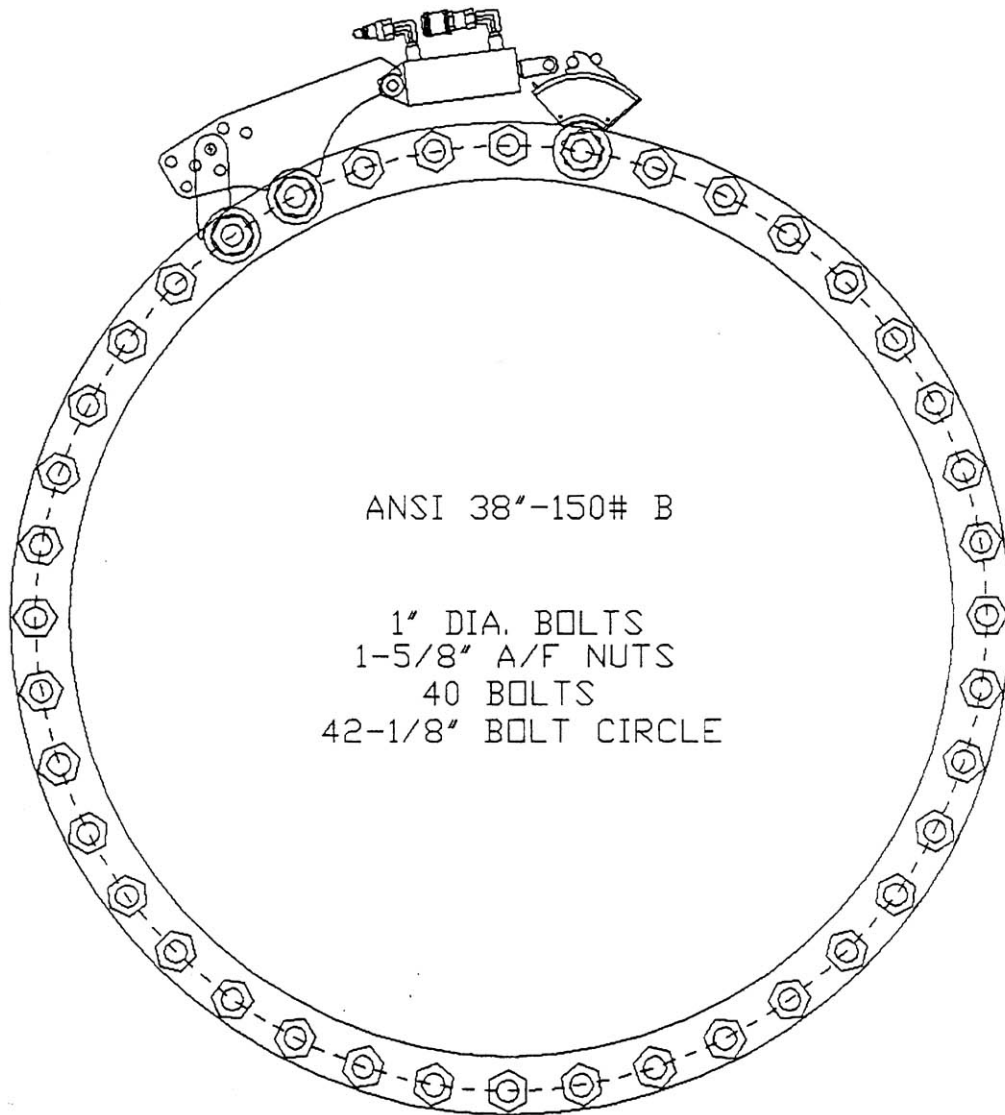
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



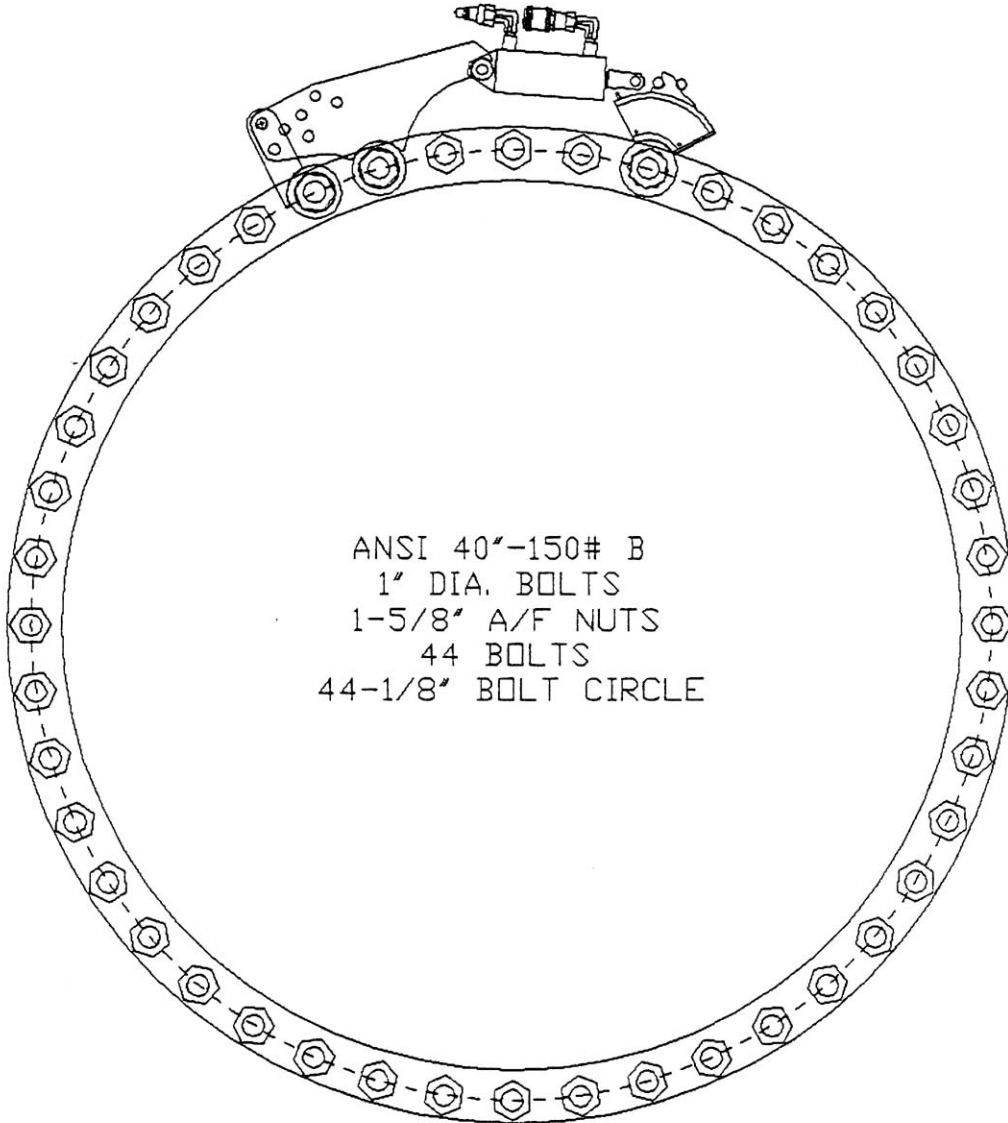
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



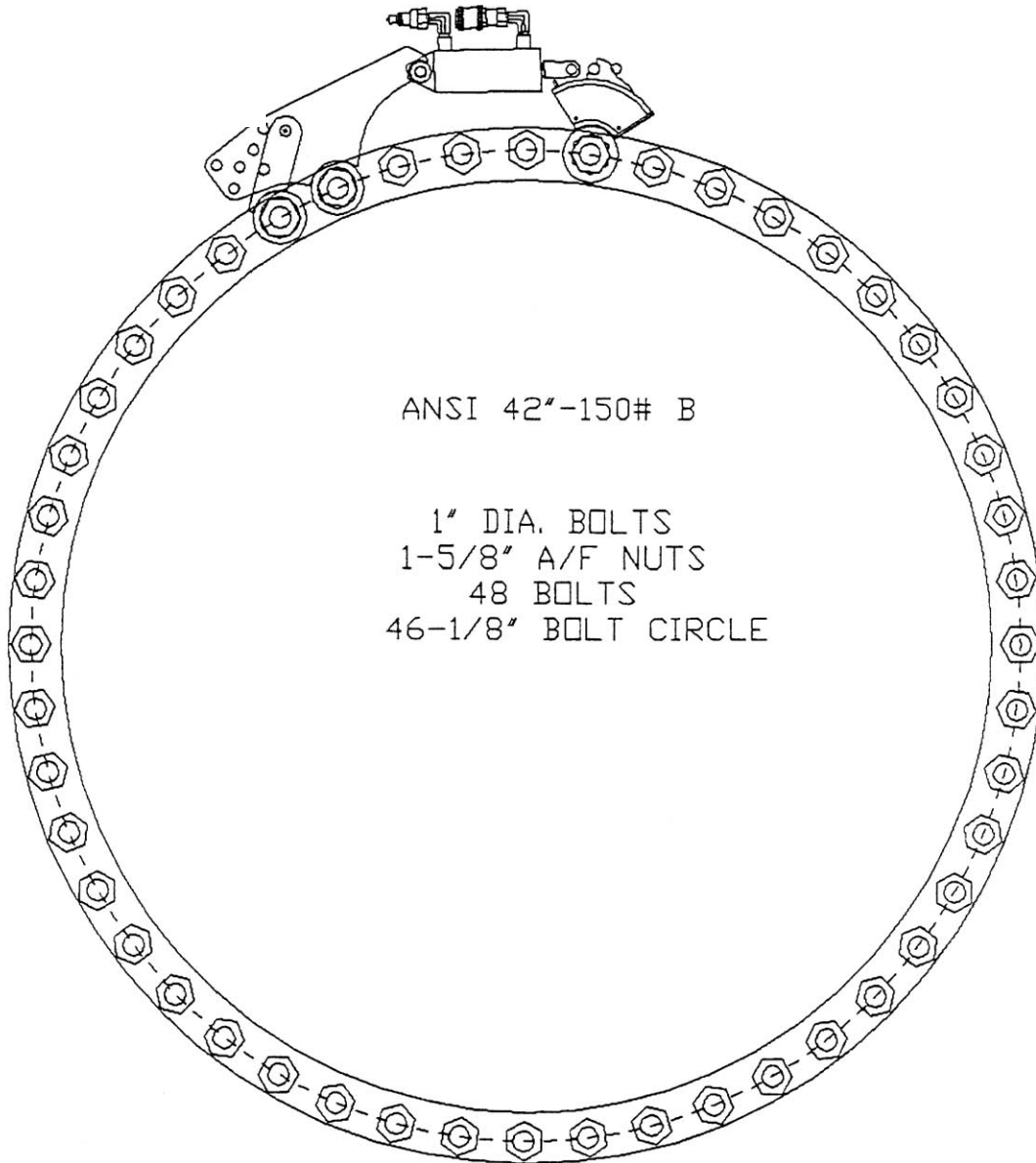
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



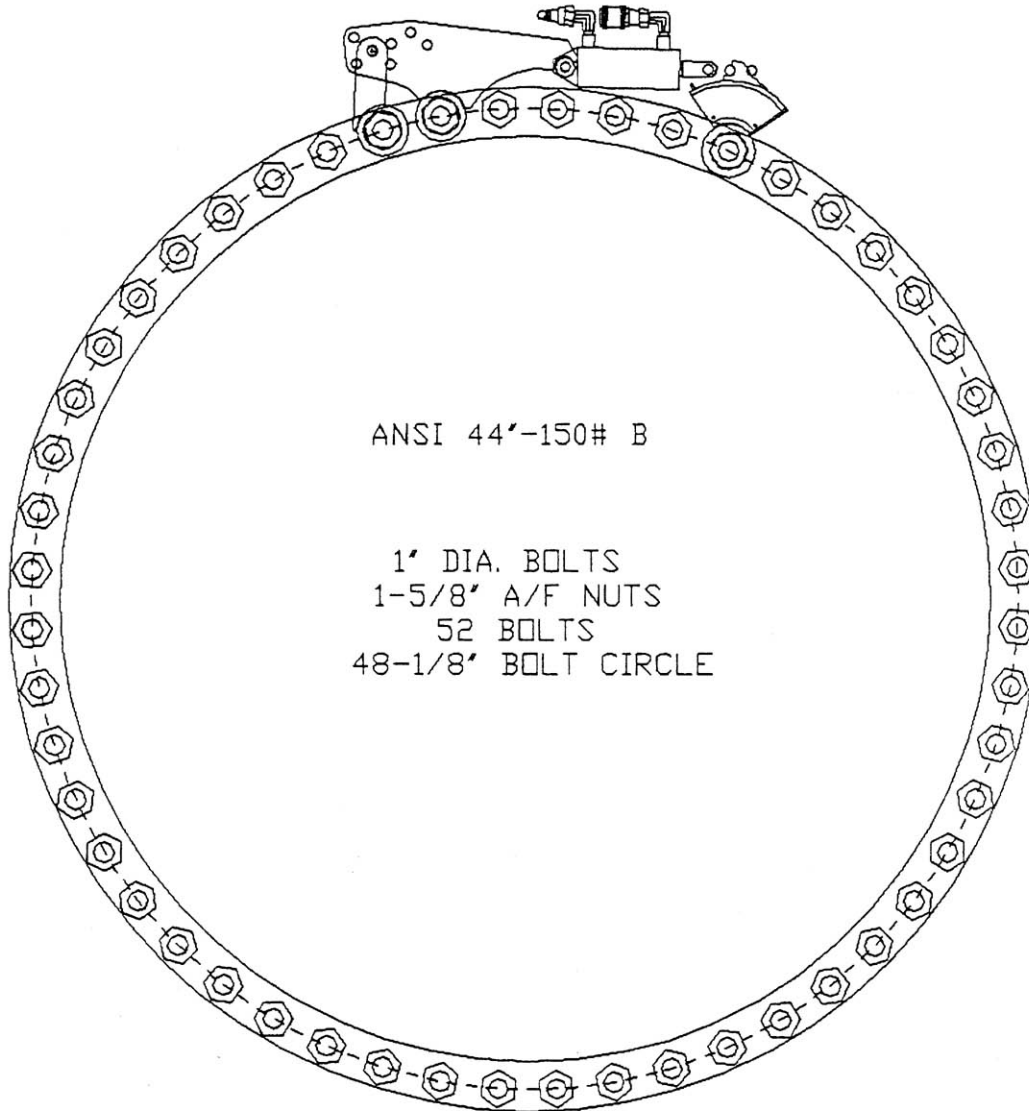
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



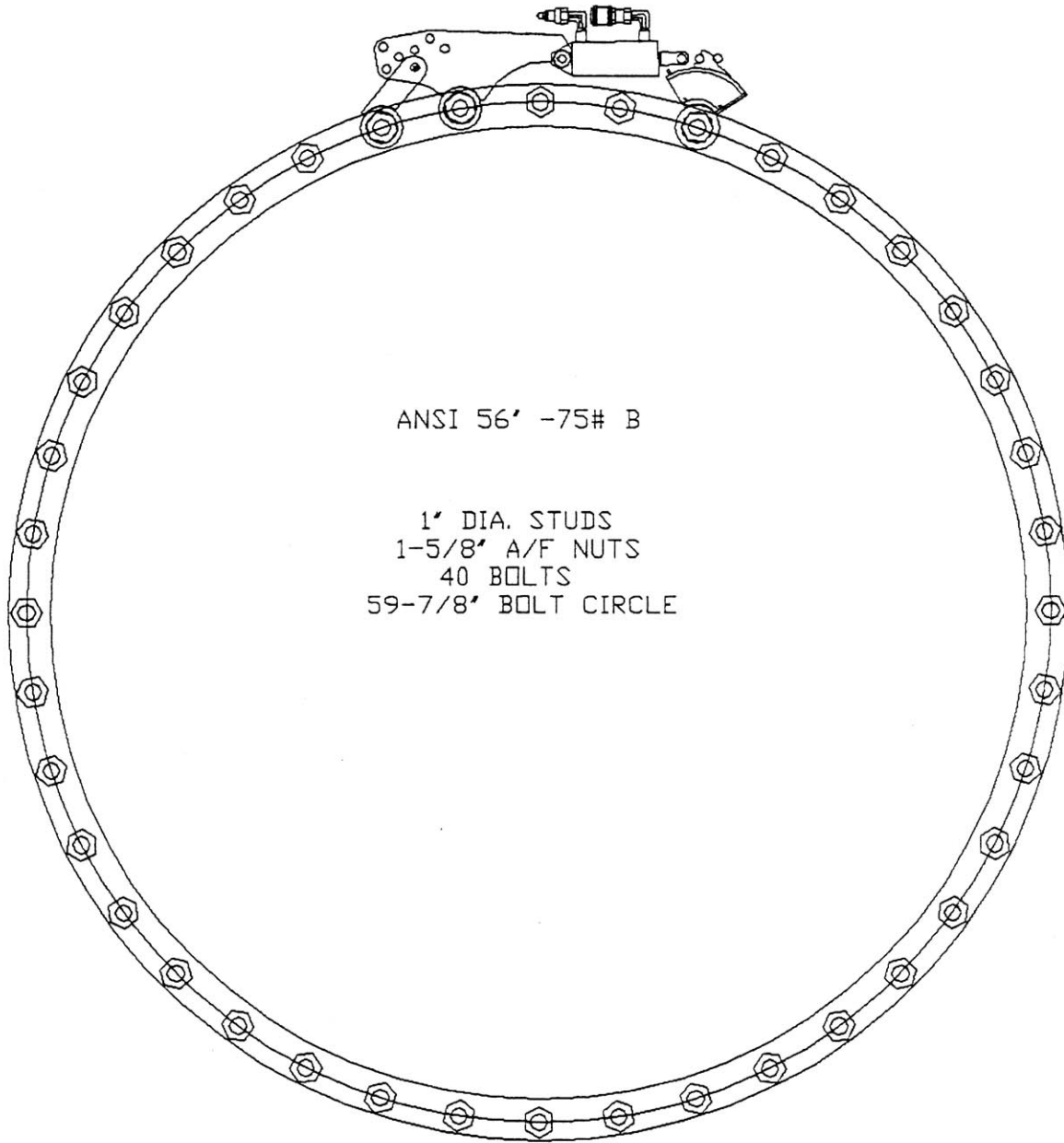
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



# ThinLINE TLH110-4

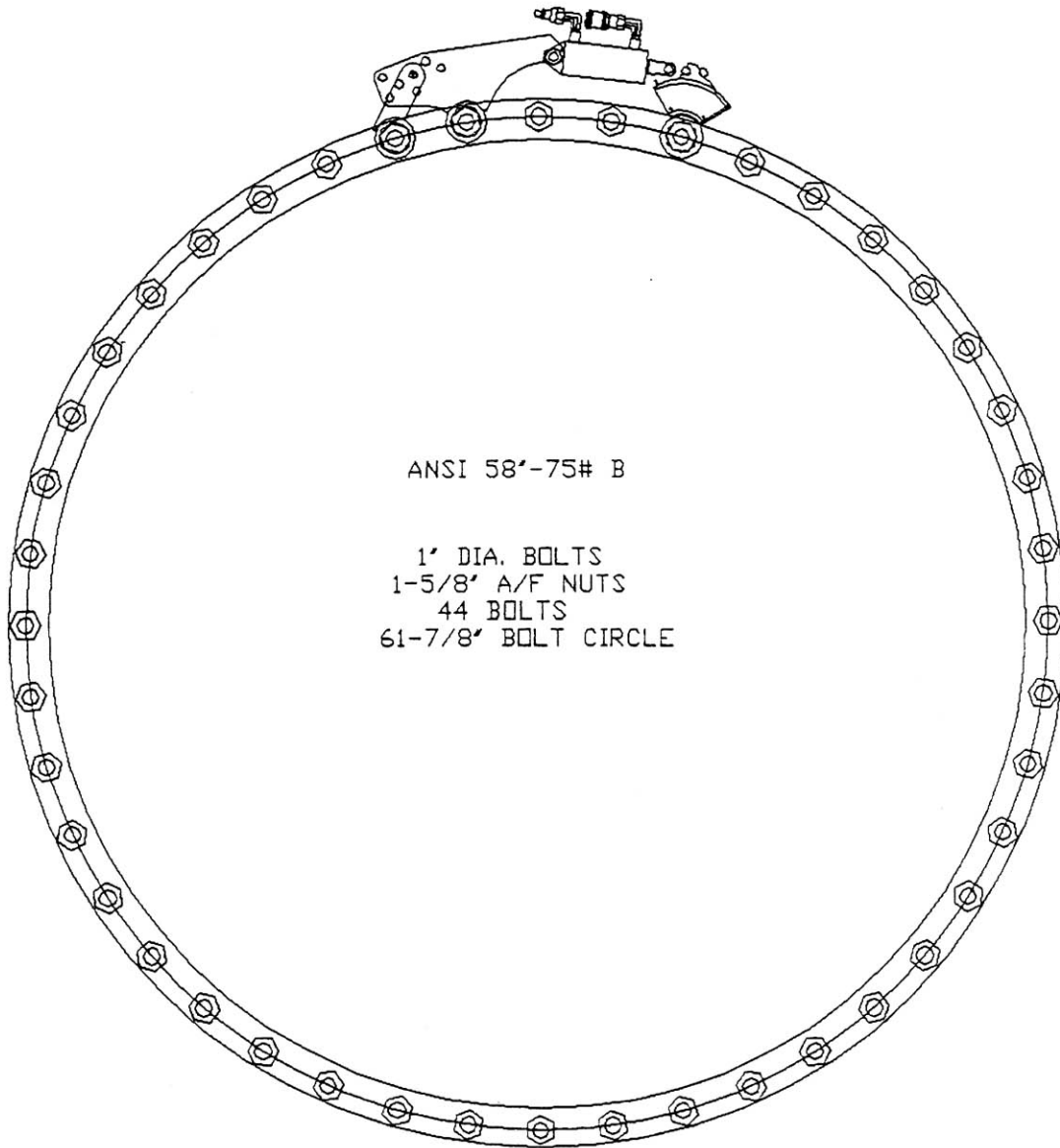


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





# ThinLINE TLH110-4

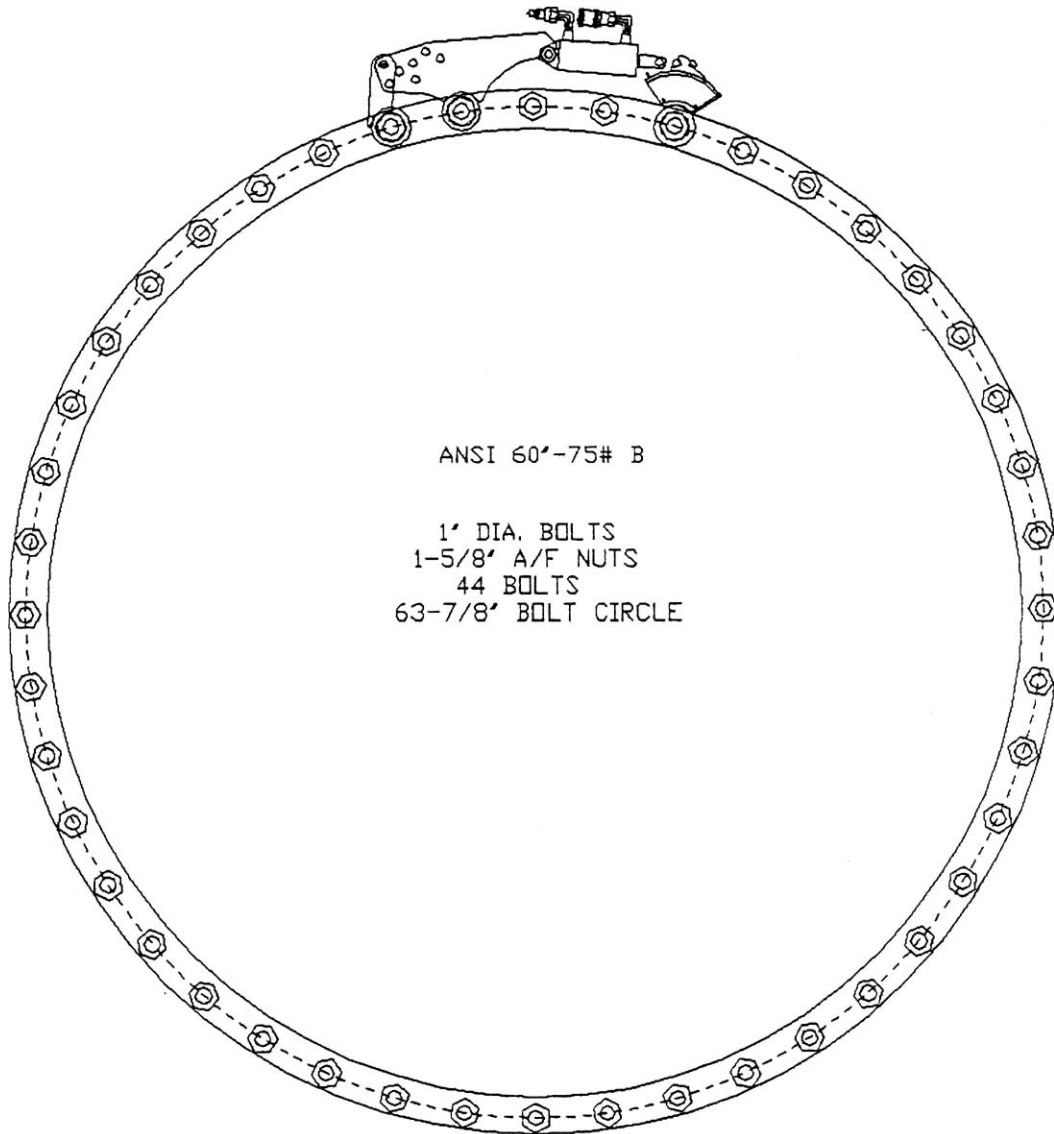


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





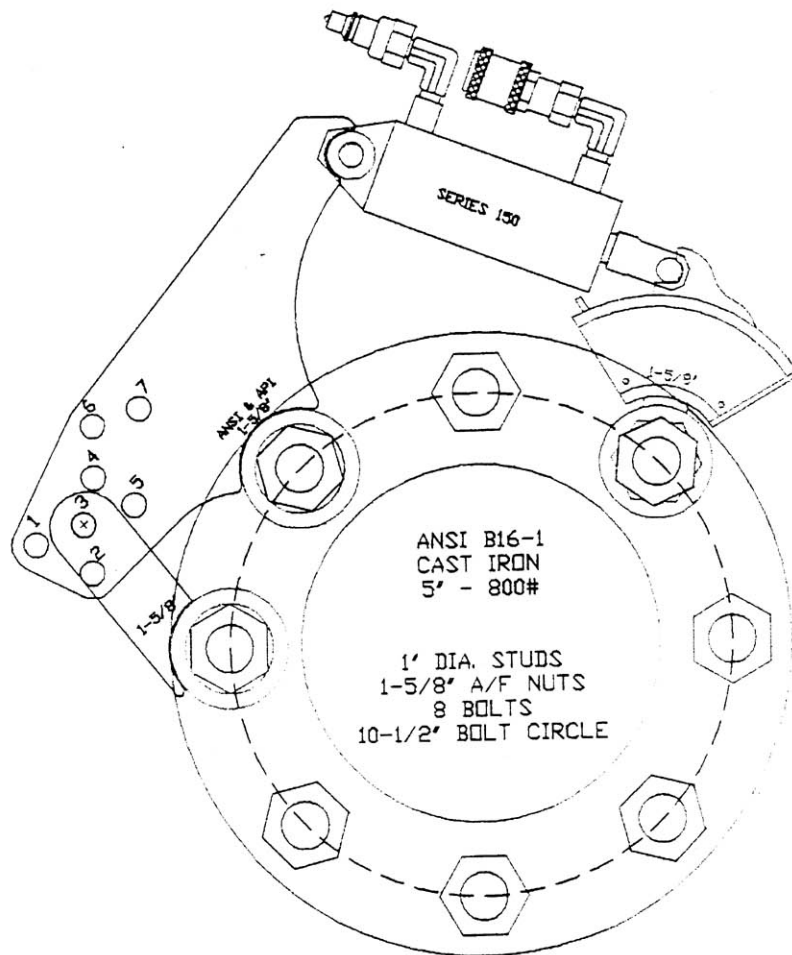
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



# ThinLINE TLH110-4

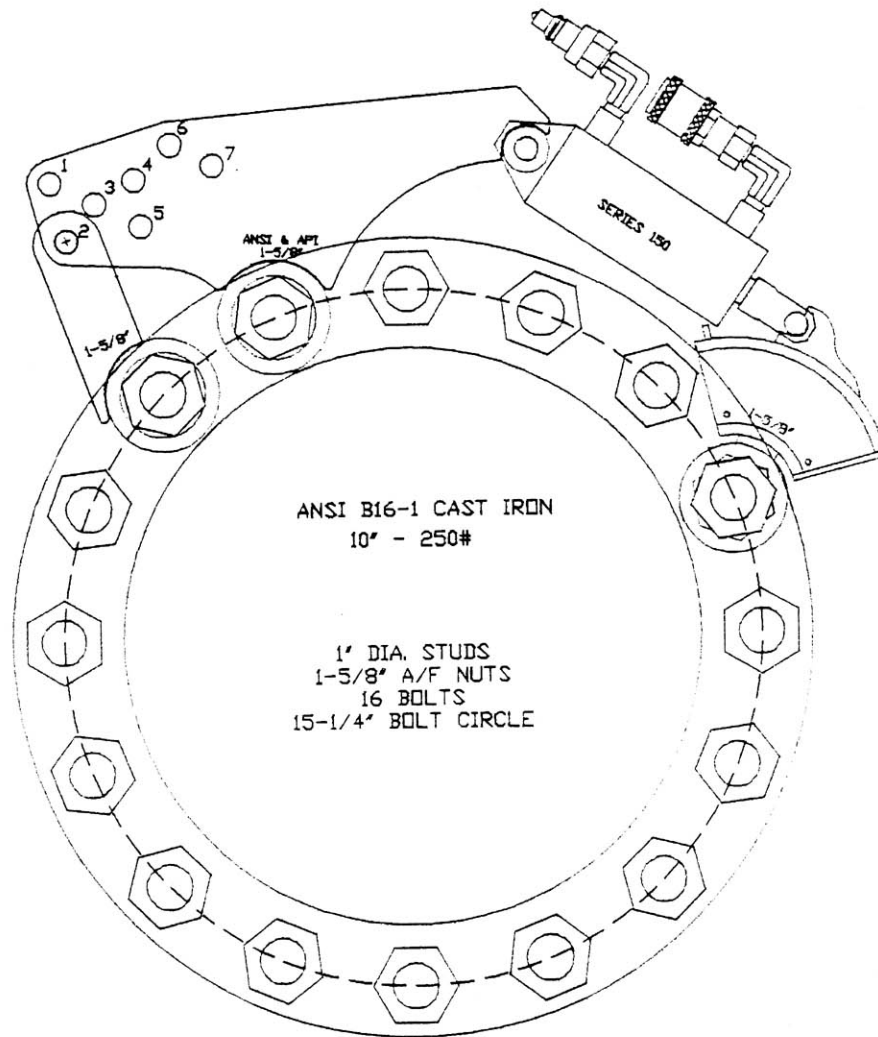


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





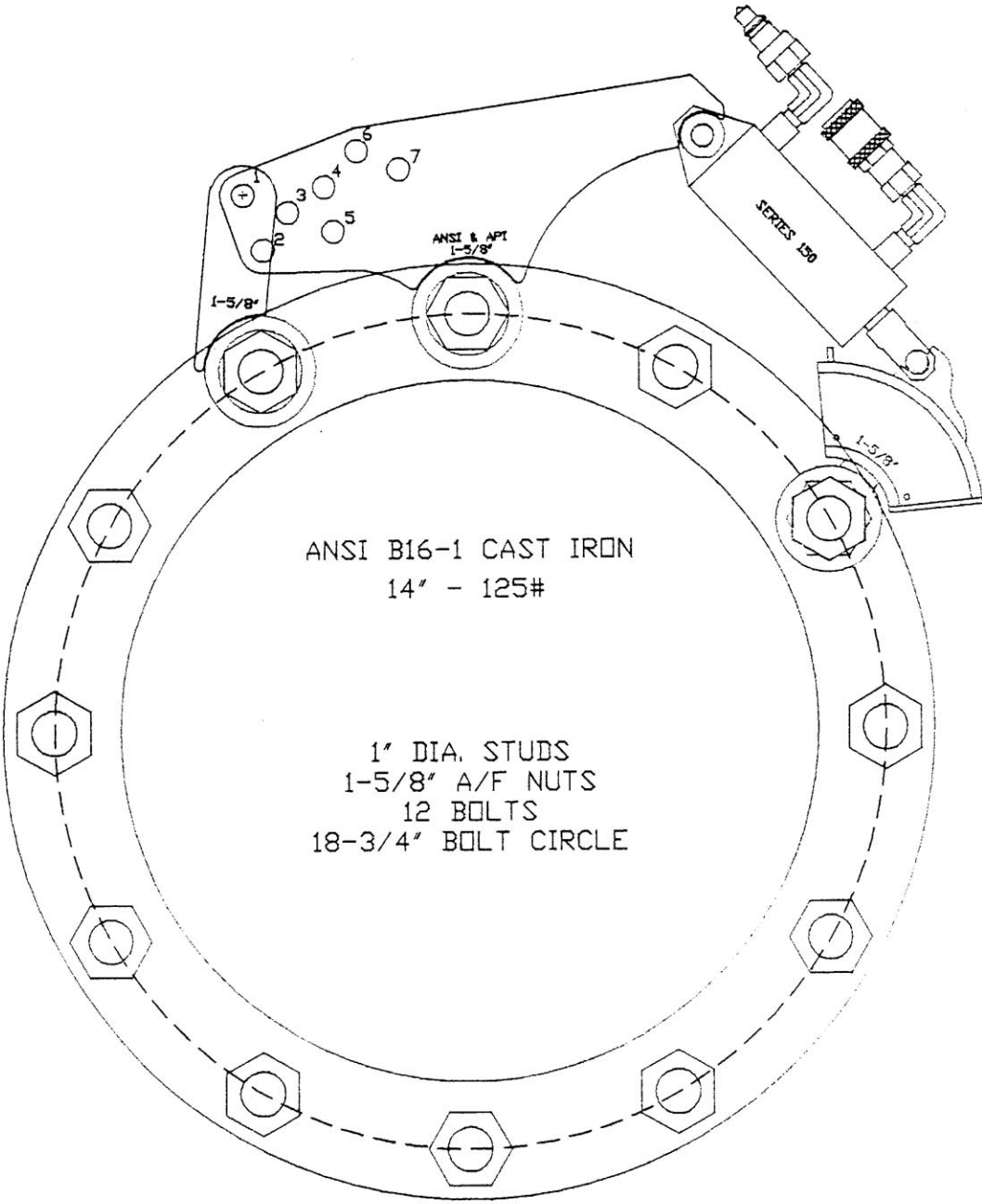
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



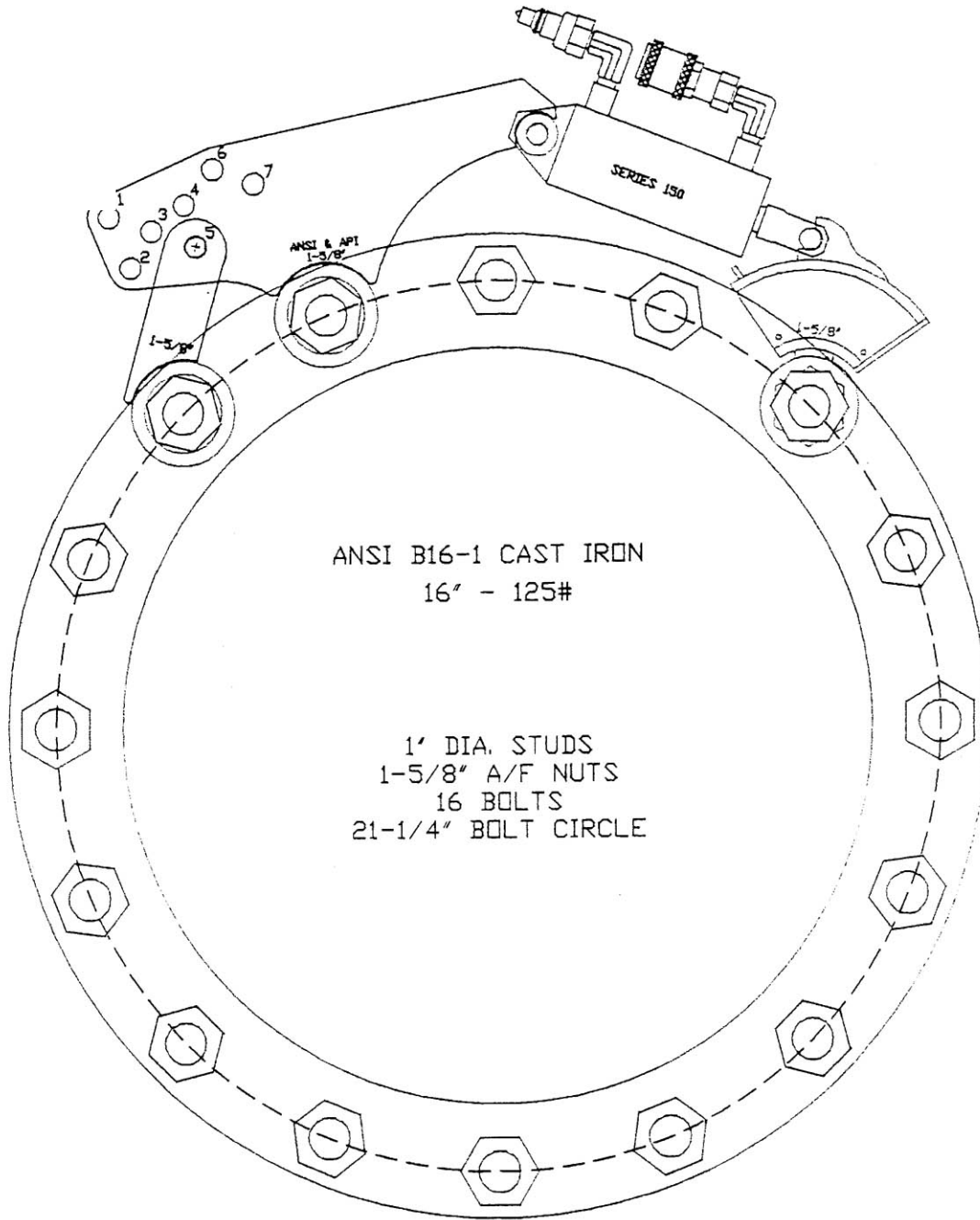
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



# ThinLINE TLH110-4

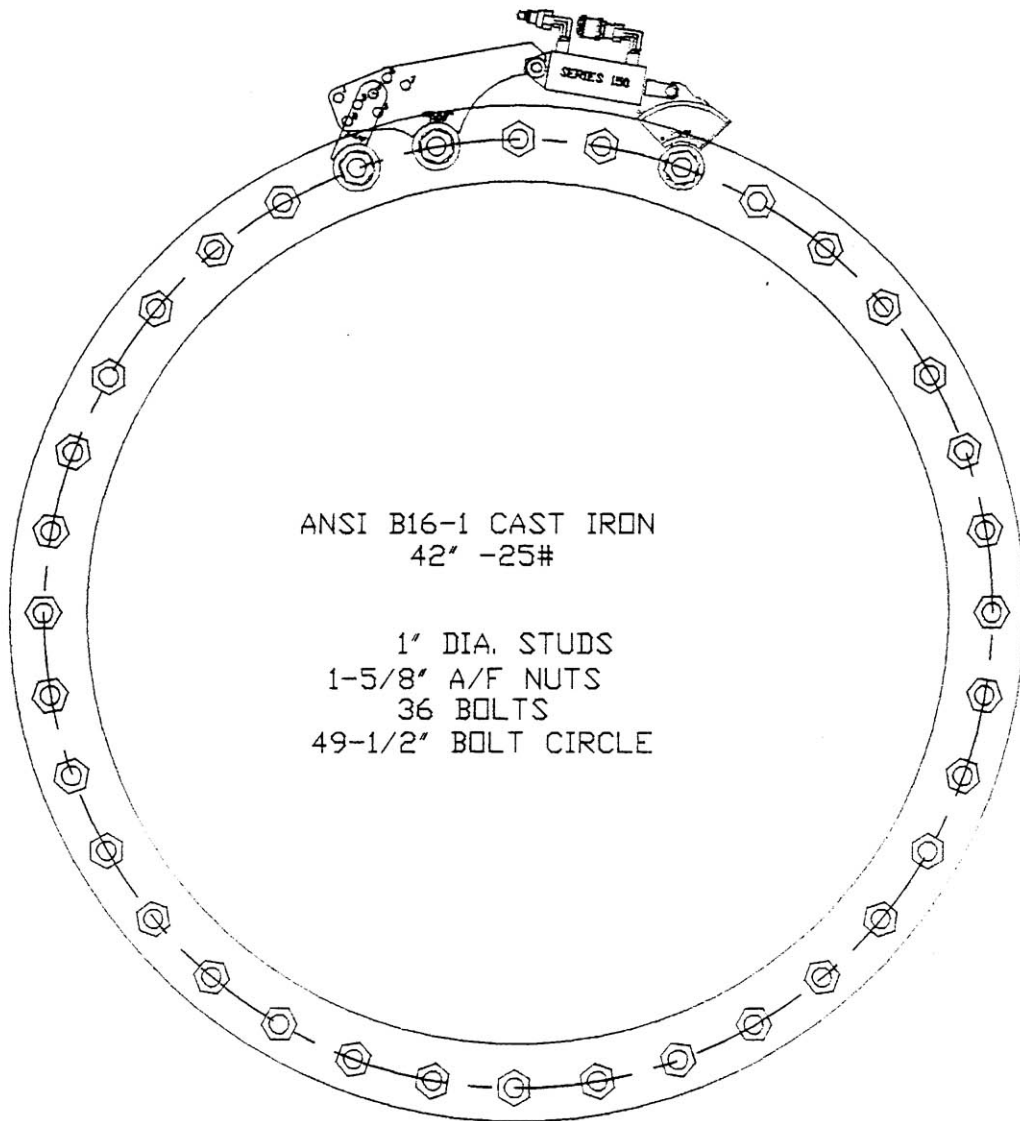


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





# ThinLINE TLH110-4

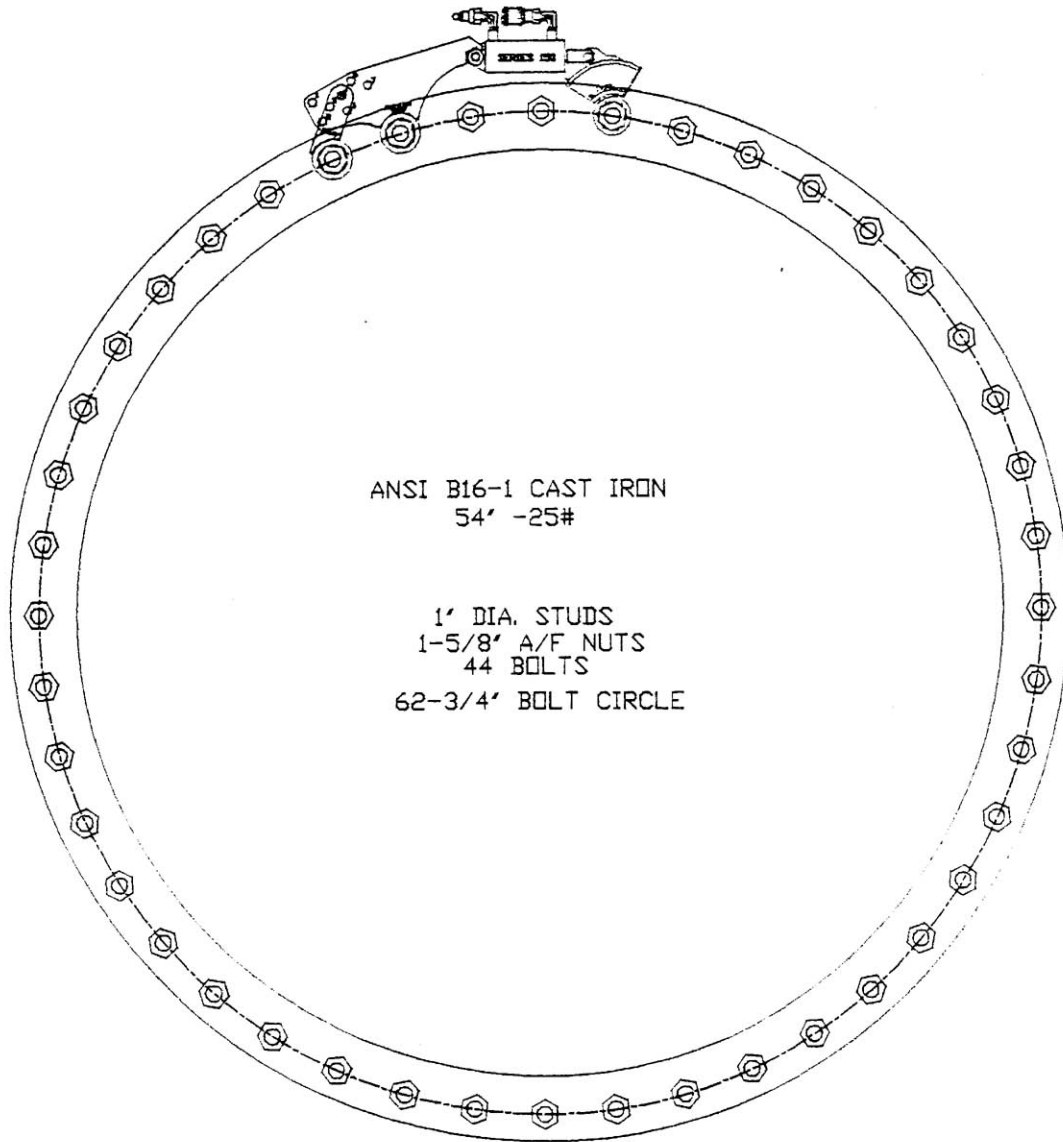


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



# ThinLINE TLH110-4

## ANSI B16-1 Cast Iron Flanges with 1-inch Bolts

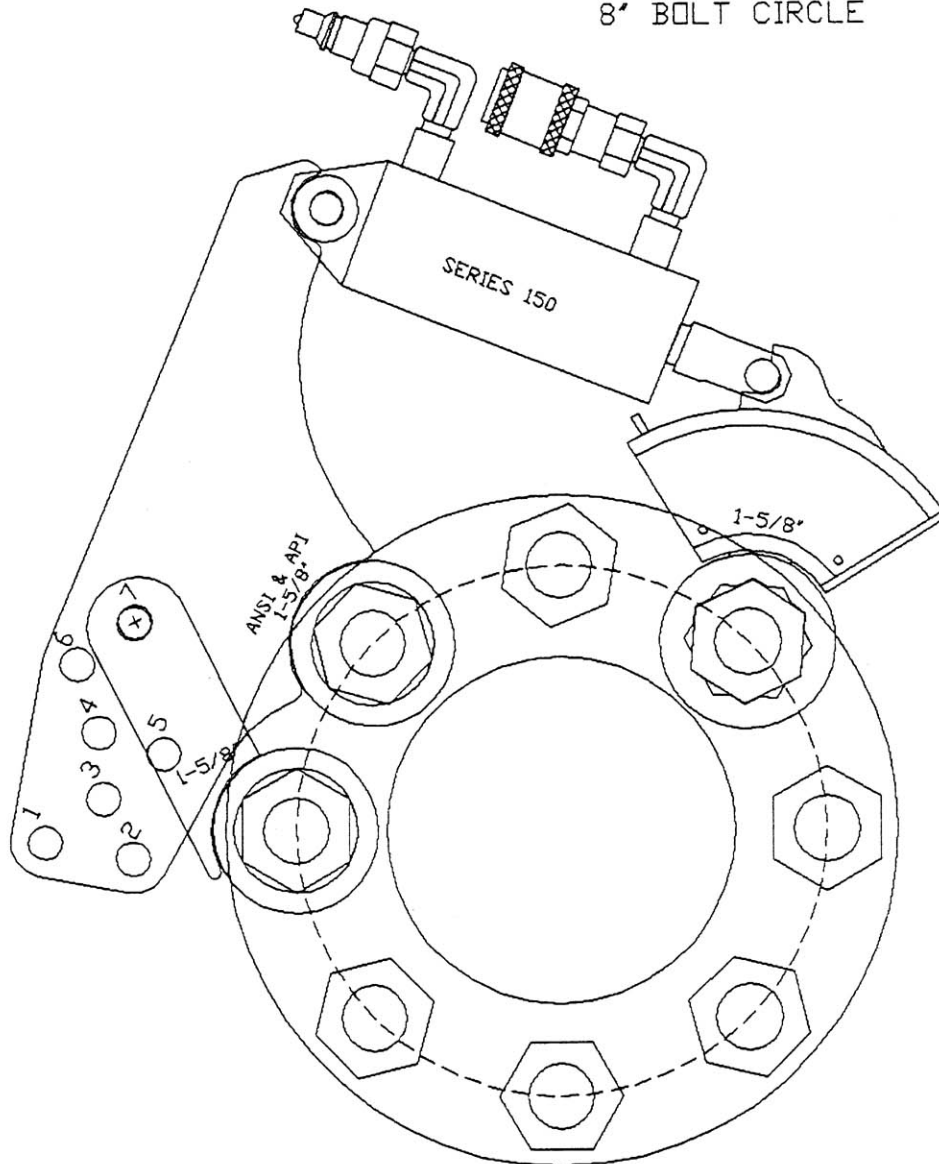
Flange #	# of Bolts	Bolt Circle	Flange O.D.	Flange I.D.	ACAD Des.
42-25 PSI	36	49.5	53	45	AWWA-500
48-25 PSI	44	56	59.5	50	AWWA-501
54-25 PSI	44	62.75	66.25	58	AWWA-502
14-125 PSI	12	18.75	21	15.38	AWWA-503
16-125 PSI	16	21.25	23.5	17.5	AWWA-504
10-250 PSI	16	15.25	17.5	12.62	AWWA-505
5-800 PSI	8	10.5	13	7.38	AWWA-506
6-800 PSI	12	11.5	14	8.5	AWWA-507



# ThinLINE TLH110-4

API 1-13/16"-20,000PSI

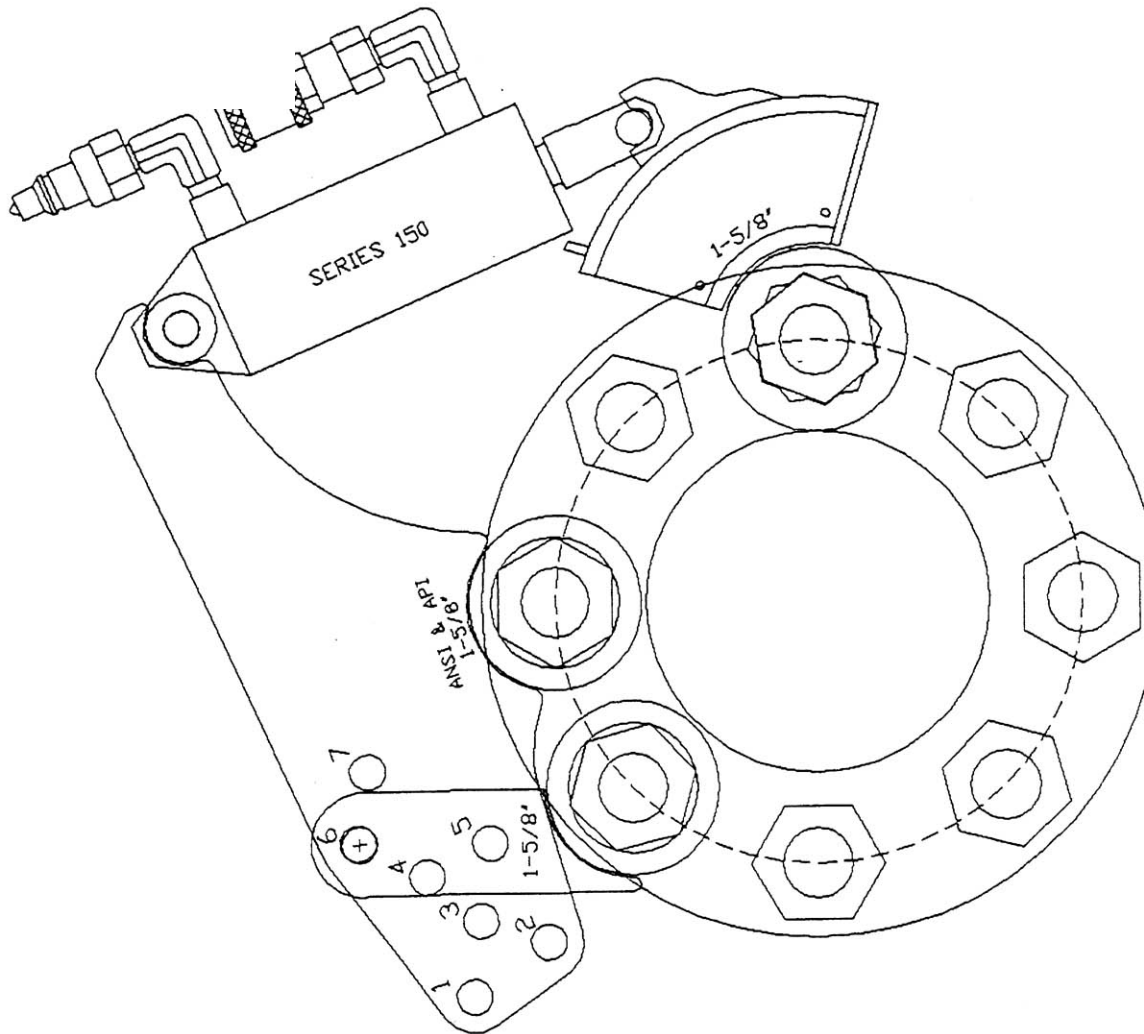
1" DIA BOLTS  
1-5/8" A/F NUTS  
8 BOLTS  
8" BOLT CIRCLE



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



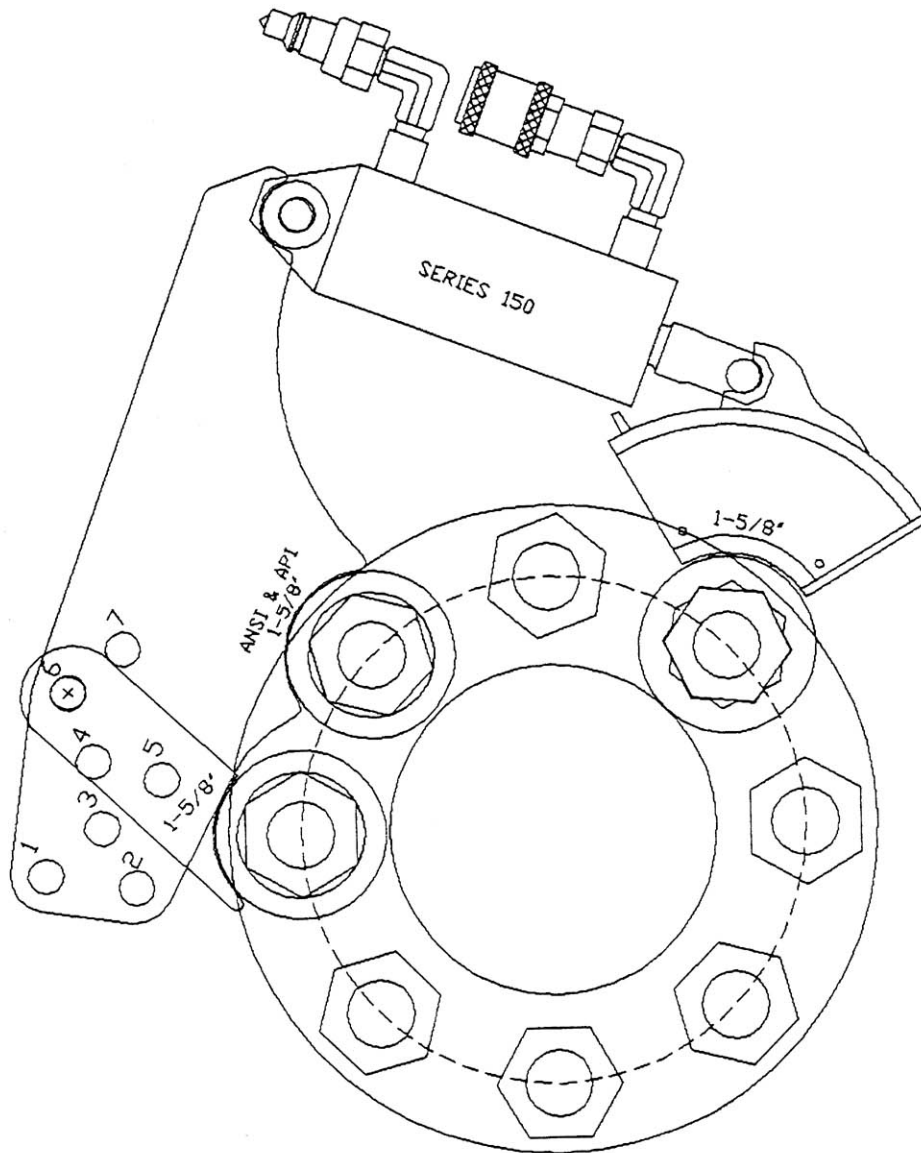
# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



# ThinLINE TLH110-4



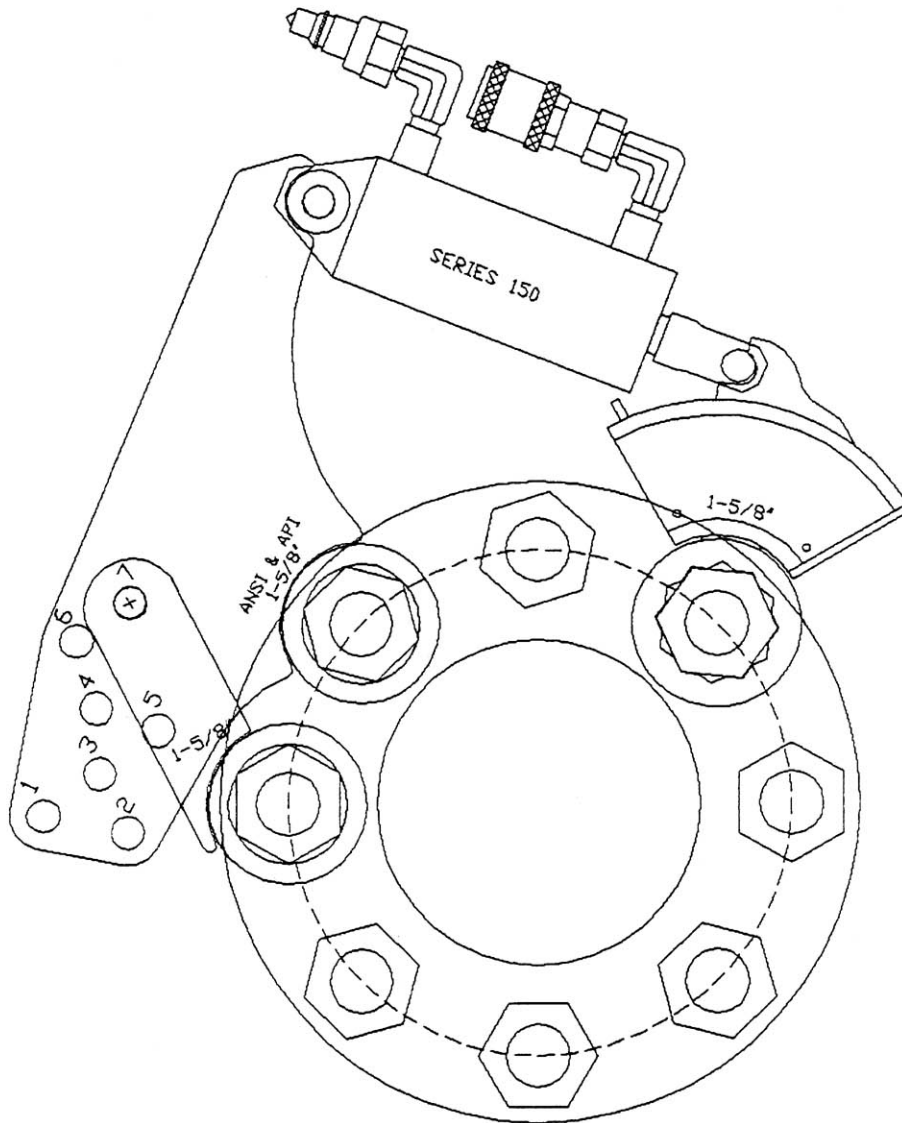
**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**



# ThinLINE TLH110-4

API 2-9/16"-15,000PSI

1" DIA BOLTS  
1-5/8" A/F NUTS  
8 BOLTS  
7-7/8" BOLT  
CIRCLE

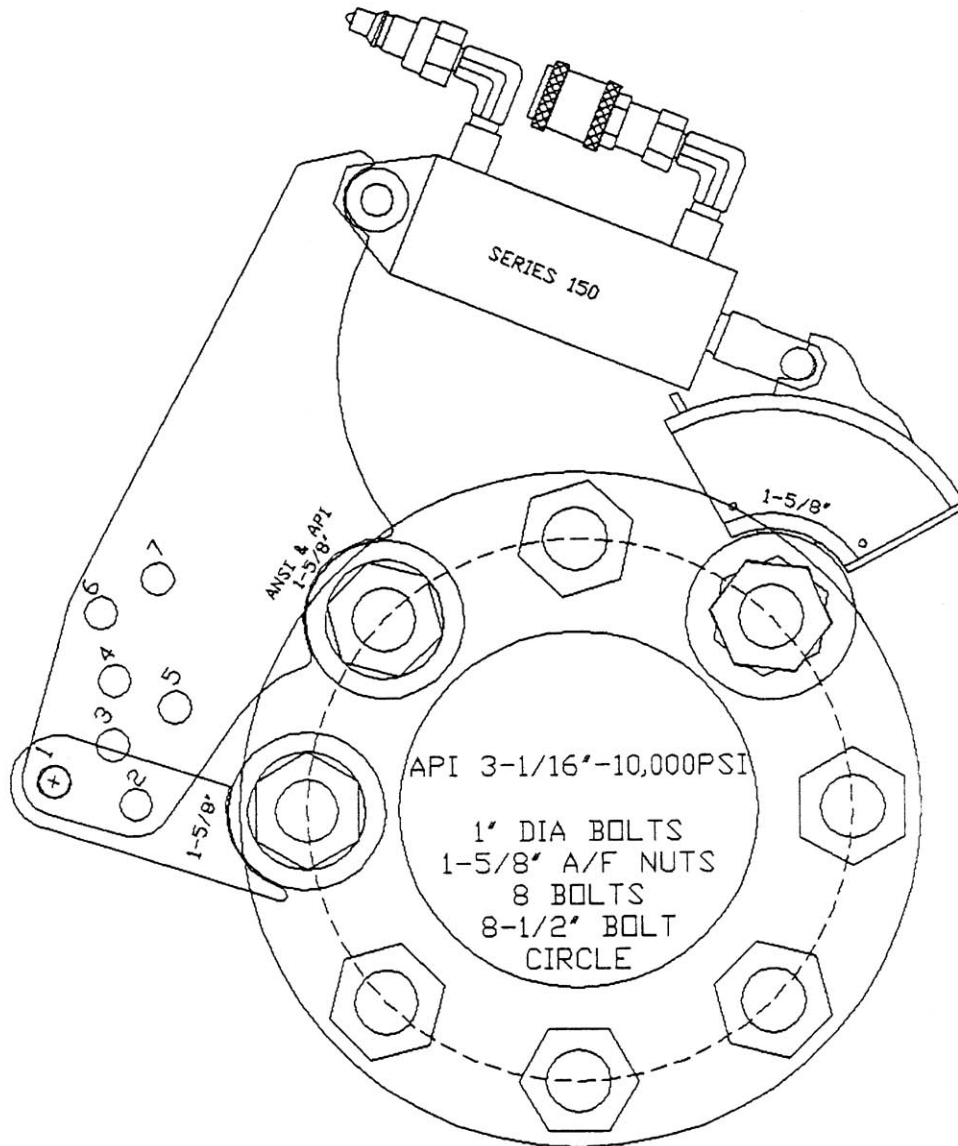


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





# ThinLINE TLH110-4

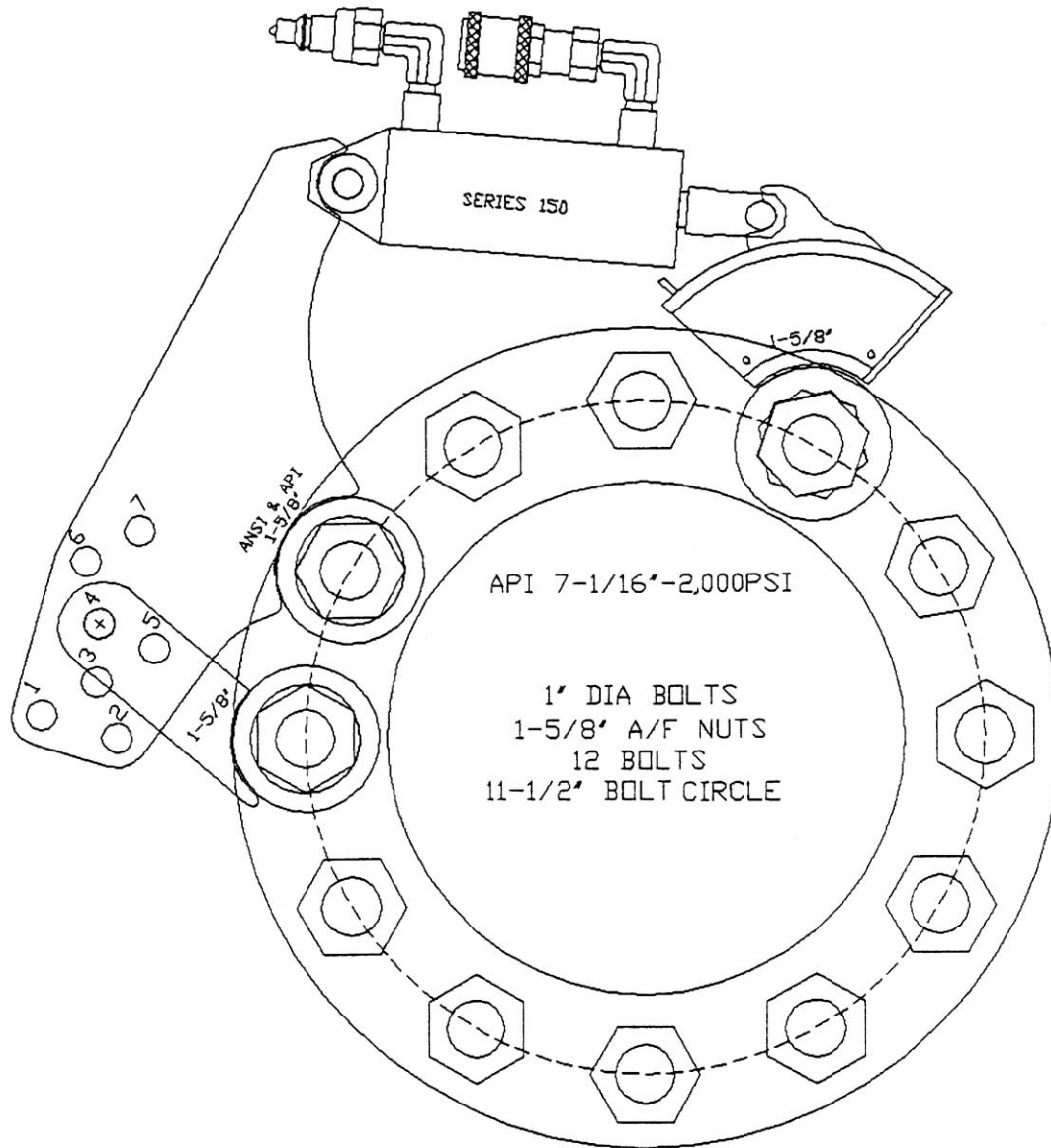


**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**





# ThinLINE TLH110-4



**Suggested Torque: 470 ft-lb**  
**Pressure Setting: 800 psi**

