



LINDGREN-PITMAN, INC.

28x Super Spool III

Installation Instructions



LINDGREN-PITMAN, INC.
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Installation Instructions for Lindgren-Pitman Super Spool III

LOCATION

A location must be selected that assures crew safety and efficient hauling and setting of the line. If assistance in choosing a mounting location is required consult the factory or your local dealer for assistance. The foot print dimensions for LP super Spool III can be found in Appendix A or obtained from the factory.

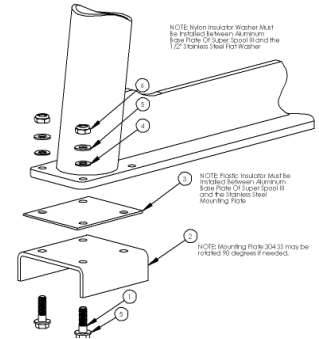
Sufficient distance should be maintained between the spool level winder and the pulley or roller preceding the level winder to reduce level winder stress and maintenance. Please note that a distance equal to the spool travel (width of spool) should be the minimum distance allowed between the fairlead/roller assembly and the hauling block. The hauling block must be centered in relation to the main spool.

MOUNTING

For steel boats angle or channel brackets should be welded to the deck that allow for through bolting to the spool feet. Insulators must be placed between steel or stainless steel brackets and the aluminum feet to reduce electrolysis. Care should always be taken to prevent fires when welding mounting brackets to decks.

Fiberglass and wooden boats may use suitable lag bolts or through bolts.

Decks should be inspected to assure that they are adequate to support the weight of the spool and monofilament.



HYDRAULICS

Lindgren-Pitman long line reels must be installed with a manifold and remote control valve assembly designed for each model. This assembly includes pressure reliefs and anti-cavitation motor protection. The standard valve has pressure compensated flow control with a preset maximum of 12 GPM to the motor circuit. The circuits will allow for up to 15 GPM pump flow.

The valve assembly is designed to be remote operated by standard 33 C marine throttle / shift type mechanical cables. This allows for the valve assembly to be mounted below decks to reduce maintenance and installation cost. The valve assembly should be located to minimize hydraulic line lengths and be located in a dry location. Final adjustment of the control lever should be done to utilize as much of the control lever rotation as possible for full valve operation.

Lindgren-Pitman offers packaged hydraulic systems with electric or engine driven pumps. These systems have the valve assembly mounted to the oil reservoir and are as pre piped as possible to minimize field installation. If Lindgren-Pitman packaged hydraulic systems are not used hydraulic supply requirements are as follows:

Pump Requirements:

28" reels	10 GPM	1500 psi
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Hoses Requirements:

Hydraulic hoses should be #8 JIC with a pressure rating of 3500 psi

Control Valve to Motor	3000 psi /200 Bar
Pump to Valve	3000 psi /200 Bar
Return to Tank	500 psi /30 Bar

ACCESSORIES

Fish Hoist or other

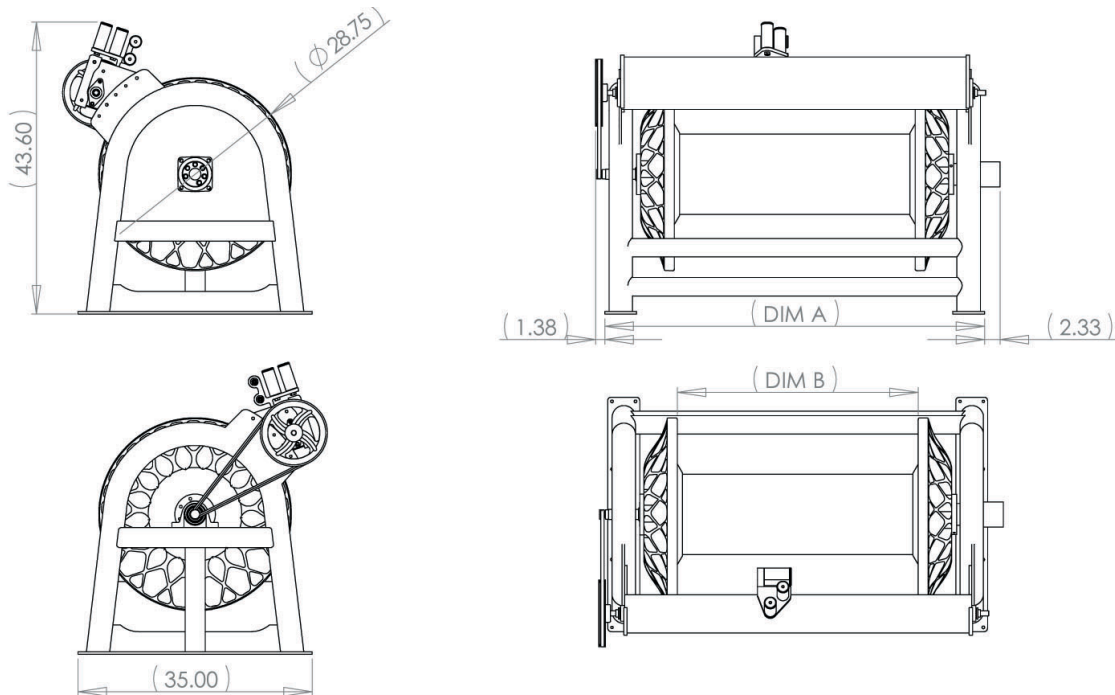
Fish hoist or other accessory may be included in the same hydraulic circuit. The control valve for any accessory must be installed in the circuit between the pump and the spool control valve so that it can not create additional backpressure on the spool control circuit.


START UP

All connections should be checked for correctness and tightness prior to operating the pump. Operate the pump for several minutes before operating the control valves. Use this time to inspect closely for any leaks. During this time the system will purge itself of most air. Operate each piece of equipment slowly to further purge air from the system and allow motor cases to fill with oil. Further test all equipment for proper operation

ADJUSTMENT

Lindgren-Pitman long line reel valves and assemblies are factory adjusted and will operate in most applications as shipped. Factors such as system back pressure and customer preferences may require adjustments. If adjustments are necessary follow procedures in Appendix B



	A	B	UNLESS OTHERWISE SPECIFIED:	NAME	DATE	 LINDGREN-PITMAN, INC.
28x24	44.75"	24"	DIMENSIONS ARE IN MILLIMETERS	DRAWN		
28x36	56.75"	36"	TOLERANCES:	CHECKED		
28x48	68.75"	48"	FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	ENG APPR.		
			INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL	MFG APPR.		Q.A.
				COMMENTS:		
						SIZE DWG. REV
						A

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NEXT ASSY

USED ON

FINISH

Appendix B

HYDRAULIC SPECIFICATIONS AND ADJUSTMENTS FOR SERIES III SYSTEMS

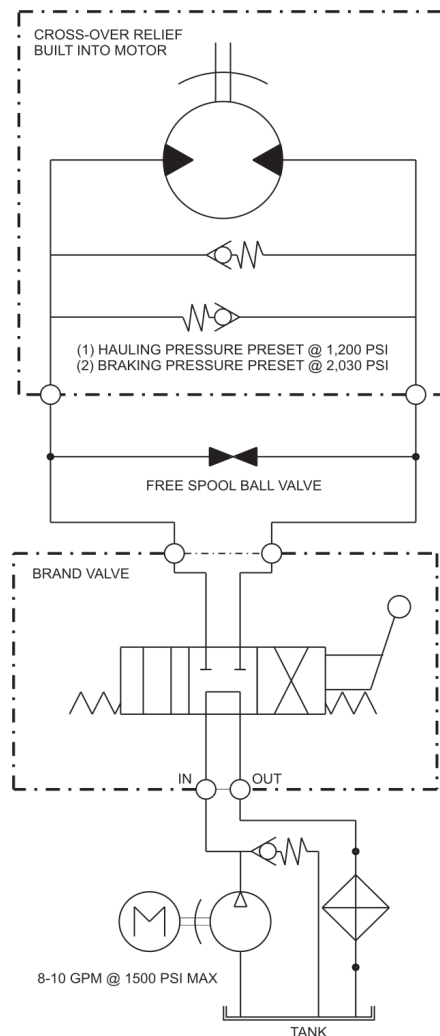
Hydraulic system piping should be designed to minimize backpressure losses to 250 psi if possible. For most systems 1/2 inch pipe or hose will suffice unless flows are higher than 12 GPM or lines are extremely long. Pressure drops for many sizes are shown in the appendix.

An additional valve can be added to the hydraulic system for a fish or anchor hoist, but it must be in series with the Lindgren-Pitman supplied valve assembly and the backpressure must be measured at the input of the supplied valve assembly to use the recommended settings.

In some cases especially, where hydraulic systems have more than 250 psi back pressure adjustments may be necessary. Making adjustments accurately will require gages installed. In many cases counting the turns on a valve, which will give an approximate setting, can make adjustments.

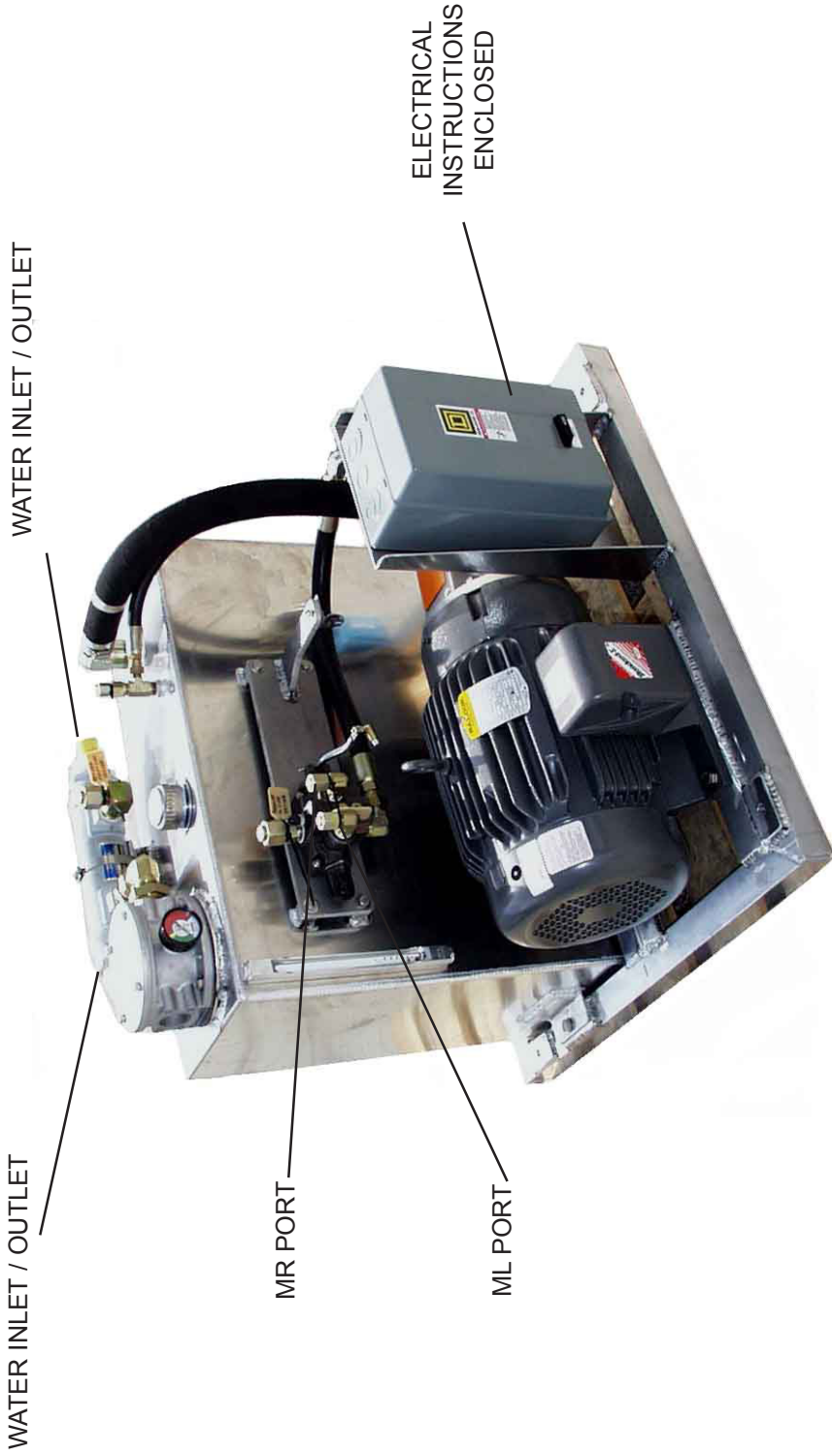
Determine system backpressure by putting a pressure gage directly at the input of the valve assembly supplied by Lindgren Pitman if no additional valves have been added to the system this should be measured at the output of the pump. A 2000 or 3000 psi maximum gage is suitable.

Hydraulic Diagram - 28x Super Spool III





LINDGREN-PITMAN
Super Spool III
Longline Spool Hydraulic Power Unit



WATER INLET / OUTLET

WATER INLET / OUTLET

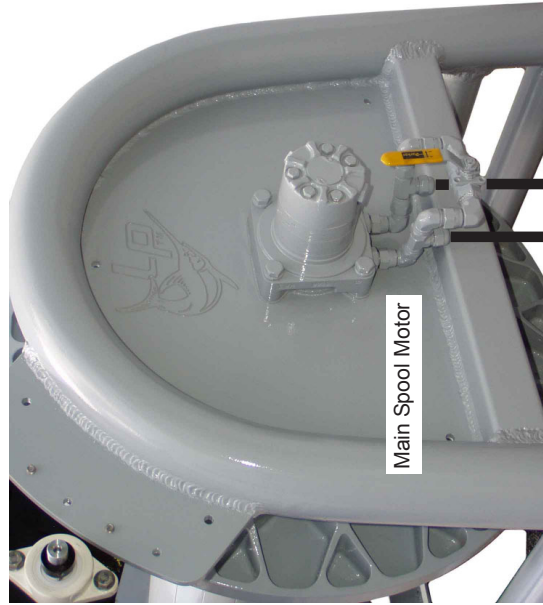
MR PORT

ML PORT

ELECTRICAL
INSTRUCTIONS
ENCLOSED



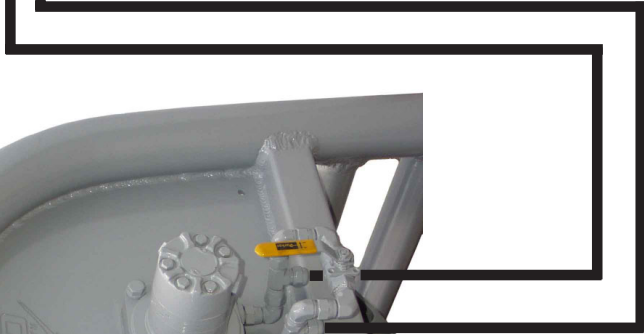
LINDGREN-PITMAN
28x Super Spool III
Longline Spool Hydraulic Circuit Connections



Main Spool Motor



Hydraulic Power Unit

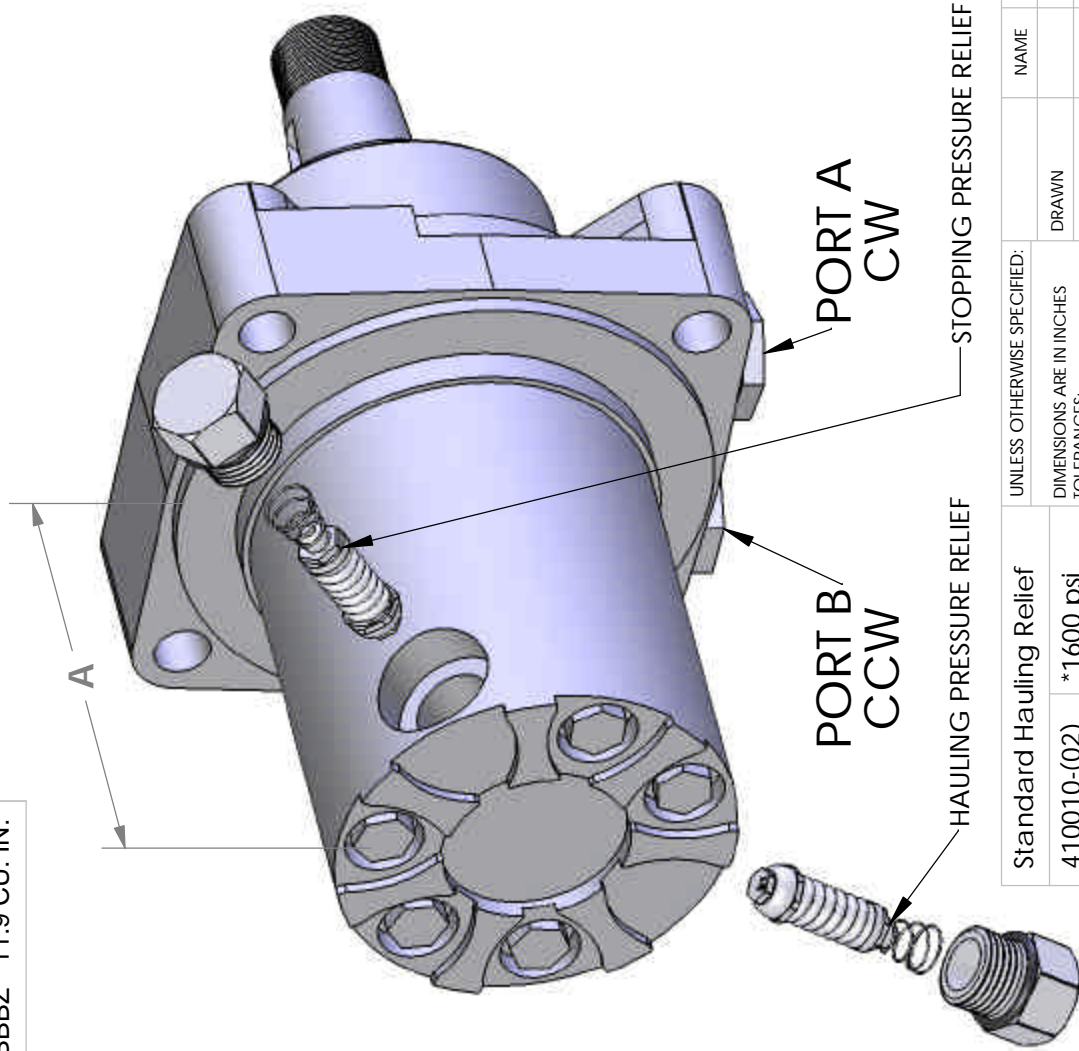


#8 or 1/2" or 13mm hydraulic hose

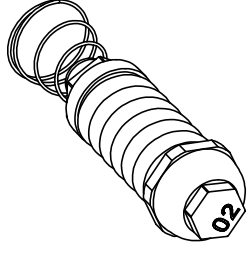
DIMENSION "A"

4-3/8" TJ0130US080BBBZ 8.0 CU. IN.

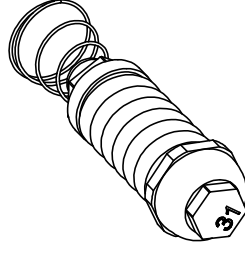
4-7/8" TJ0195US080BBBZ 11.9 CU. IN.



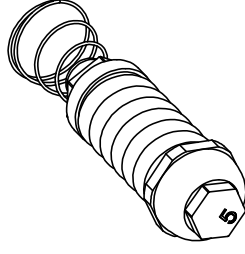
410010-(02) - 1600 psi
Standard Hauling Relief



410010-(31) - 1200 psi
(Optional Hauling Relief)



410010-(5) - 2030 psi
Standard Stopping Relief



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
Standard Hauling Relief	DIMENSIONS ARE IN INCHES	DRAWN	
410010-(02) *1600 psi	TOLERANCES:	CHECKED	
Standard Stopping Relief	FRACTIONAL ±	ENG APPR.	
410010-(5) *2030 psi	ANGULAR: MACH ± BEND ±	MFG APPR.	
Optional Hauling Relief	TWO PLACE DECIMAL ±	O.A.	
410010-(31) 1200 psi	THREE PLACE DECIMAL ±	COMMENTS:	
NEXT ASSY USED ON	INTERPRET GEOMETRIC TOLERANCING PER:		
APPLICATION	MATERIAL		
	FINISH		
	DO NOT SCALE DRAWING		

LINDGREN-PITMAN, INC.

TITLE: TJ0130US080BBBZ - 8.0 CU. IN.
TJ0195US080BBBZ - 11.9 CU. IN.

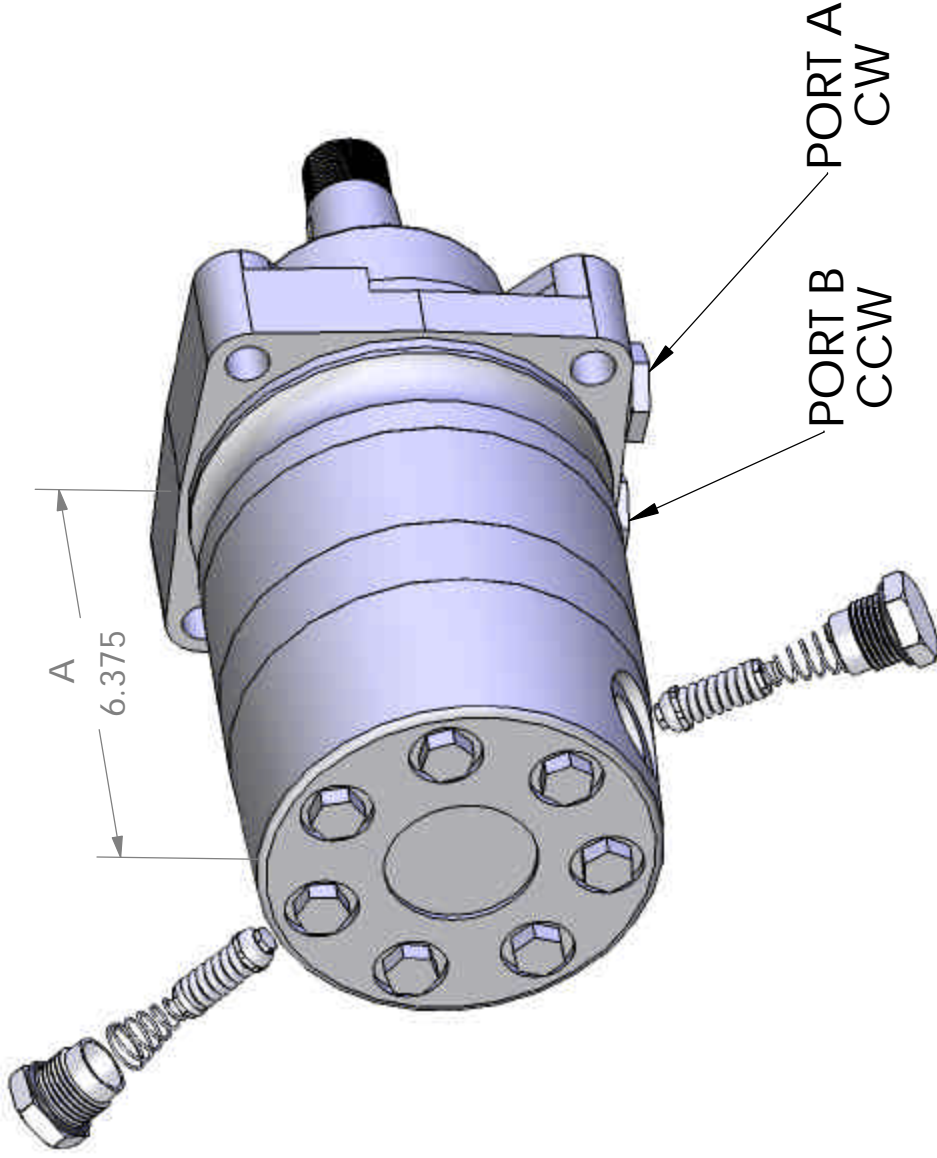
SIZE DWG. NO. REV
A Parker (Ross) TJ-Relief 1008

SCALE: 1:1 WEIGHT: SHEET 1 OF 2

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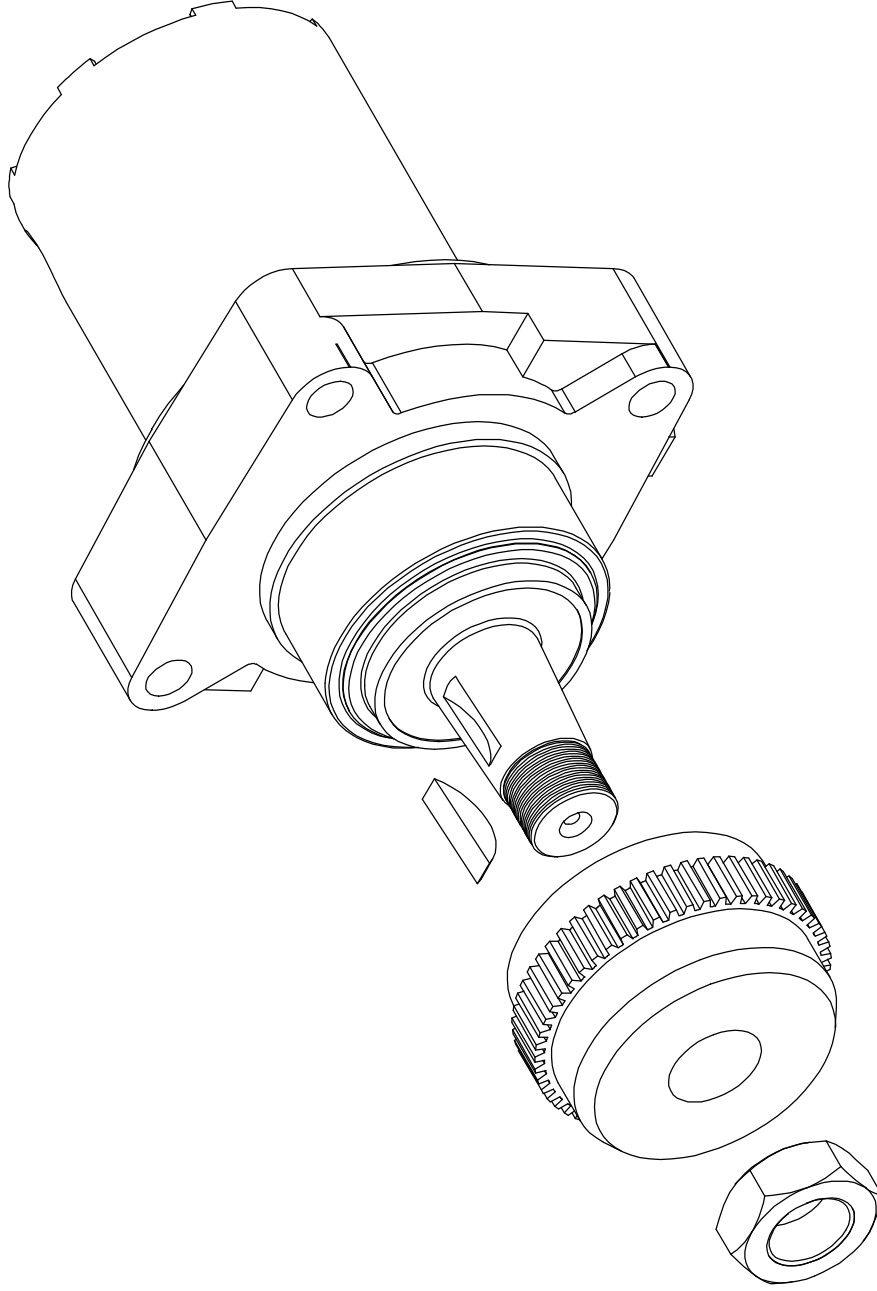
DIMENSION "A"

6-3/8" TF0360US080BBBG 22.2 CU. IN.



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DIMENSIONS ARE IN INCHES	DRAWN			TITLE:	
TOLERANCES:	CHECKED			TF0360US080BBBG	
FRACTIONAL ±	ENG APPR.			22.2 CU. IN.	
ANGULAR: MACH ± BEND ±	MFG APPR.			SIZE DWG. NO.	REV
TWO PLACE DECIMAL ±	Q.A.			A	Parker (Ross) TJ-Relief
THREE PLACE DECIMAL ±	COMMENTS:			BOTH RELIEFS	
INTERPRET GEOMETRIC				1551 P.S.I.	
TOLERANCING PER:				SCALE: 1:4	WEIGHT:
MATERIAL				SHEET 2 OF 2	
FINISH				1	
NEXT ASSY	USED ON			2	
APPLICATION				3	
				4	
				5	



LINDGREN-PITMAN, INC.

NAME

DRAWN

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONAL ±
 ANGULAR: MACH ± BEND ±
 TWO PLACE DECIMAL ±
 THREE PLACE DECIMAL ±
 INTERPRET GEOMETRIC
 TOLERANCING PER:
 MATERIAL

DATE

CHECKED

ENG APPR.

MFG APPR.

Q.A.

COMMENTS:

TITLE:

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SIZE DWG. NO. REV

A RossMotorTJ

SCALE: 1:4 WEIGHT:

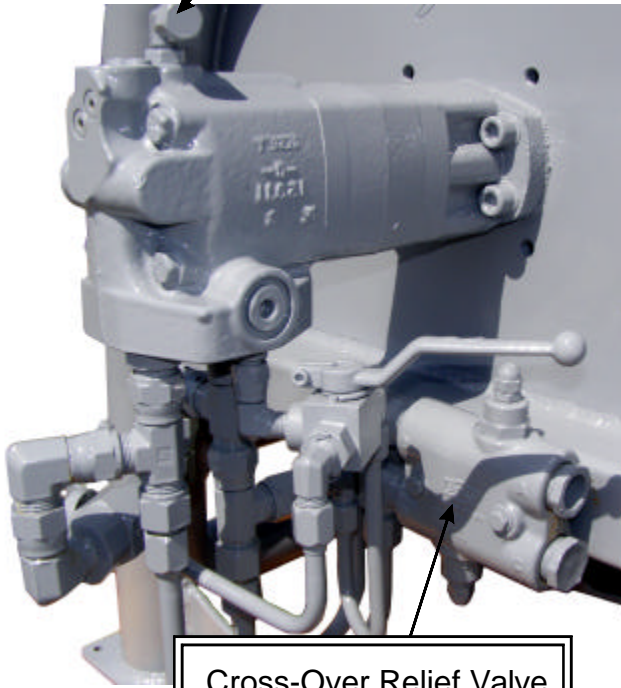
SHEET 1 OF 1



LINDGREN-PITMAN, INC.

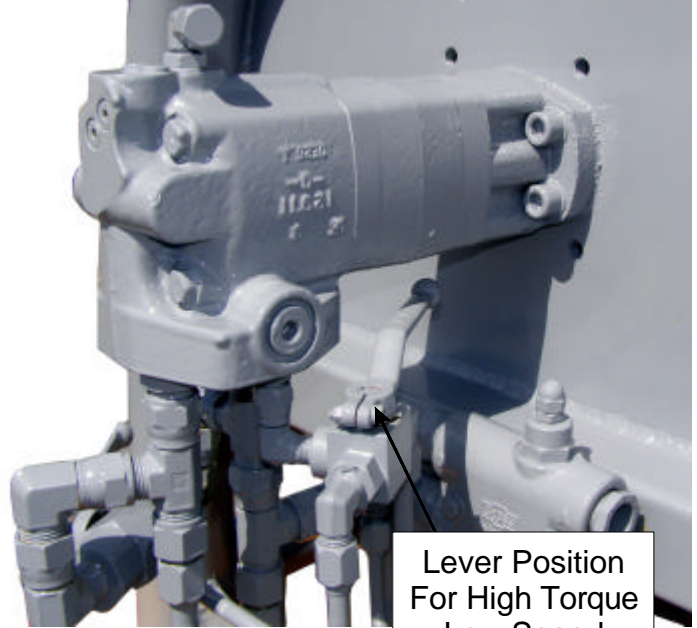
28x- 2 Speed Motor

Case Drain
Must Be
Installed For
2 Speed Operation

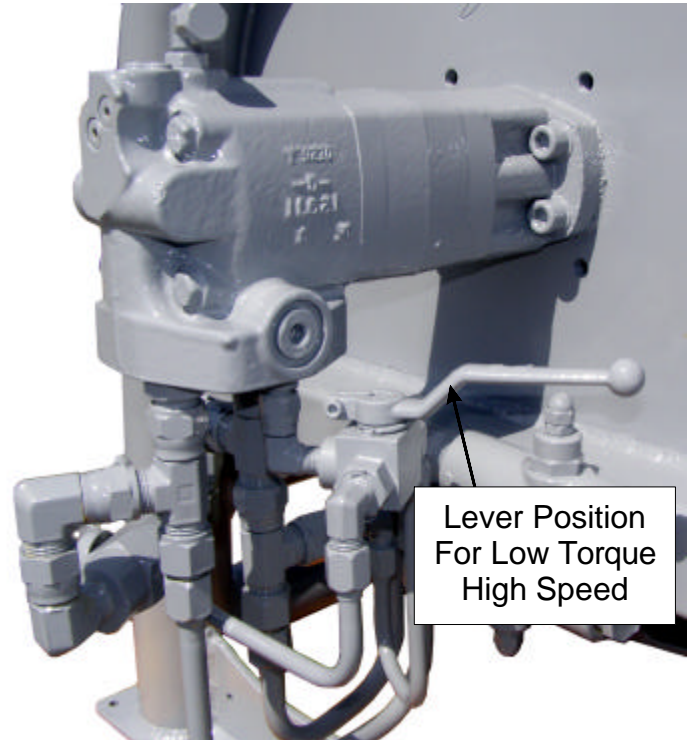


Cross-Over Relief Valve

* NOTE - MOTOR WILL NOT OPERATE IN THE LOW TORQUE/ HIGH SPEED SETTING IN THE REVERSE DIRECTION.

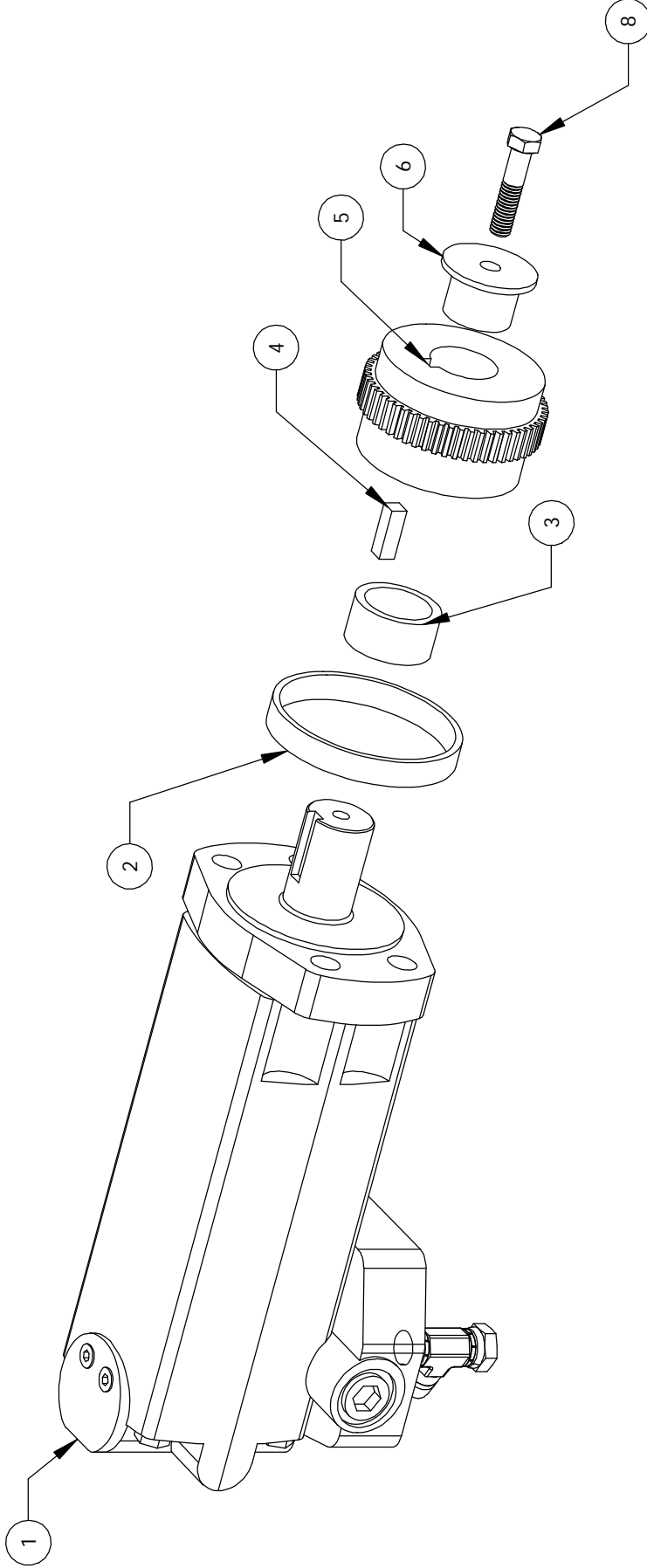


Lever Position
For High Torque
Low Speed



Lever Position
For Low Torque
High Speed

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TITLE:

2_Speed_Motor_Magneto_Mnt

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN INCHES		
TOLERANCES:	DRAWN	
FRACTIONAL: ±	CHECKED	
ANGULAR: MACH ± BEND ±	ENG APPR.	
TWO PLACE DECIMAL ±	MFG APPR.	
THREE PLACE DECIMAL ±	Q.A.	
INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:	
MATERIAL		
FINISH		
DO NOT SCALE DRAWING		

SIZE DWG. NO. REV
A

SCALE: 1:4 WEIGHT: SHEET 1 OF 1