

# tilton®

## 4XXX Series

Typical Application

Direct mount inside bellhousing.



Hydraulic Release Bearings | GEN3

# Tilton HRBs

Tilton offers a wide range of hydraulic release bearings (HRB) for use with push-type clutches. Hydraulic release bearings are available for use with smaller diameter racing clutches (4.5", 5.5", & 7.25") and most OE-type clutches.

Tilton hydraulic release bearings are designed to eliminate the need for mechanical linkages, pivot balls, spacers and external slave cylinders.

Advanced manufacturing | Renowned Tilton quality

## 4000-Series HRB

52mm Bearing

[Installation Drawing](#)

## 42XX-Series HRB

44mm Bearing

[Installation Drawing](#)

## 4100-Series HRB

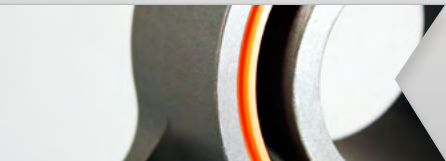
Flat-face Bearing

[Installation Drawing](#)

## 43XX-Series HRB

38mm Bearing

[Installation Drawing](#)



Monoseal Technology



Constant Contact Design



Proprietary Coatings



High Quality Bearings

Tilton's unique monoseal technology is incorporated into all hydraulic release bearings. The high temperature monoseal features a quad tensioner to ensure proper seal tension. Seals have been tested to hundreds of thousands of actuations without failure. Tilton hydraulic release bearings feature a wiper seal to provide protection from debris entering the bore.

The constant contact design of Tilton hydraulic release bearings maintains pedal feel even as the clutch wears. In addition, Tilton hydraulic release bearings self-adjust for clutch wear.

Tilton hydraulic release bearings feature superior materials and proprietary low friction coatings, providing longevity and consistency.

Tilton hydraulic release bearing assemblies feature high-quality bearings to provide smooth and reliable operation.

# 4000-Series HRB

4-leg | **52mm** bearing



*5.5" - 8.5" clutches*

*Radius face bearing*

*Aluminum Body & Piston*

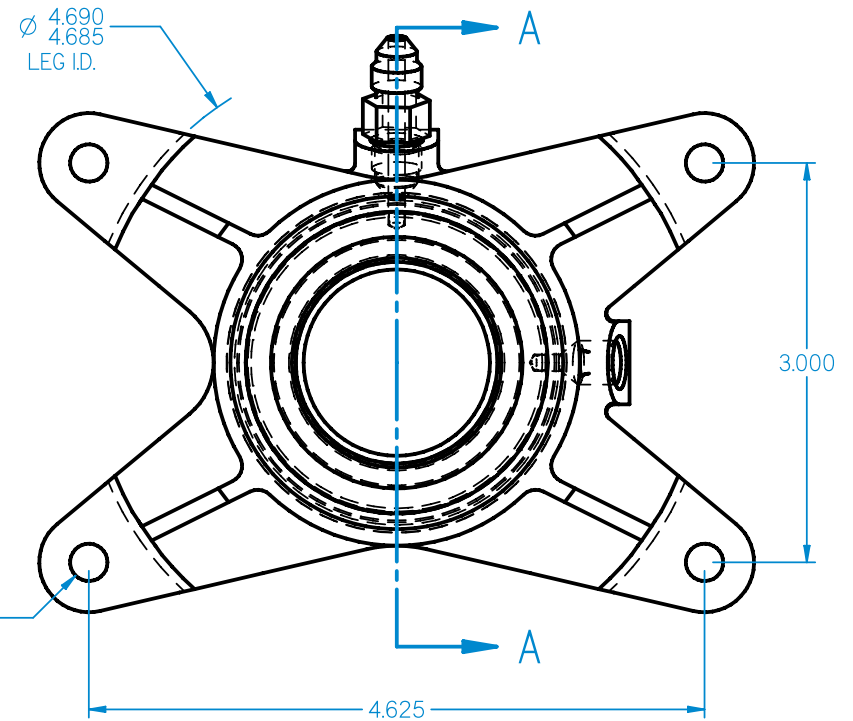
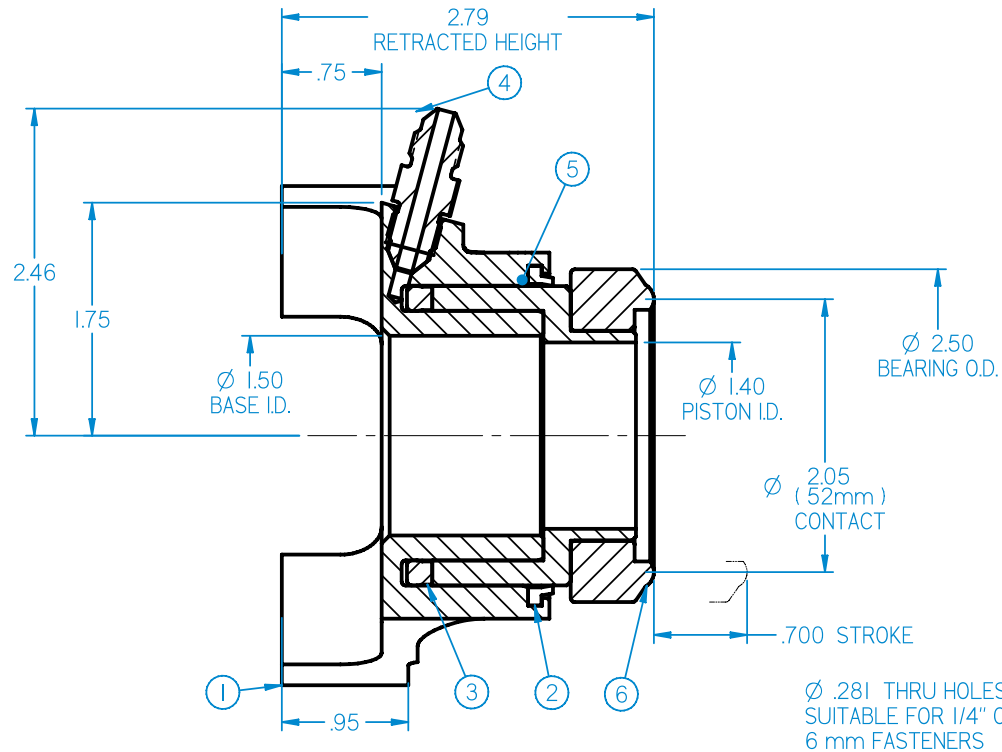
Mount:	4-bolt pattern
Bearing contact diameter:	2.05" (52mm)
Piston Area:	1.215 in <sup>2</sup> (784mm <sup>2</sup> )
Max Stroke:	.700" (17.8 mm)
Ports:	AN3 (3/8"-24)
Weight:	1.30 lbs
Includes:	AN3 fittings (2)

Part Number	Overall Height
60-4000	2.80" (71.0mm)

# Installation Drawing

60-4000 HRB

ITEM	PART NUMBER	DESCRIPTION	QTY
1	62-402	HYDRAULIC BASE	1
2	62-617	WIPER	1
3	62-614	HYDRAULIC SEAL	1
4	73-820	FITTING	2
5	62-612	PISTON	1
6	62-002	BEARING	1



## INSTALLATION NOTES:

1. USE ONLY WITH DOT-3 OR DOT-4 BRAKE FLUID.
2. NO INTERNAL TRAVEL LIMITER. MUST BE USED WITH CLUTCH PEDAL STOP.
3. SEAL REBUILD KIT = 62-905.
4. SEAL INSTALLATION TOOL = 96-002.
5. HYDRAULIC AREA = 1.215 SQ IN.
6. EITHER PORT MAY BE USED FOR FEED OR BLEED.
7. ORIENTATE BLEED PORT TO WITHIN 10 DEGREES OF TOP CENTER TO FACILITATE BLEEDING PROCESS.
8. BOTH PORTS 3/8-24 UNF X .28 THREAD DEPTH.

# 4100-Series HRB

4-leg | **Flat face** bearing



Mount:	4-bolt pattern
Bearing contact diameter:	1.71" – 3.03" (43.4mm – 77.0mm)
Piston Area:	1.215 in <sup>2</sup> (784mm <sup>2</sup> )
Max Stroke:	.700" (17.8 mm)
Ports:	AN3 (3/8"-24)
Weight:	1.45 lbs
Includes:	AN3 fittings (2)

Part Number	Overall Height
60-4100	2.54" (64.5mm)

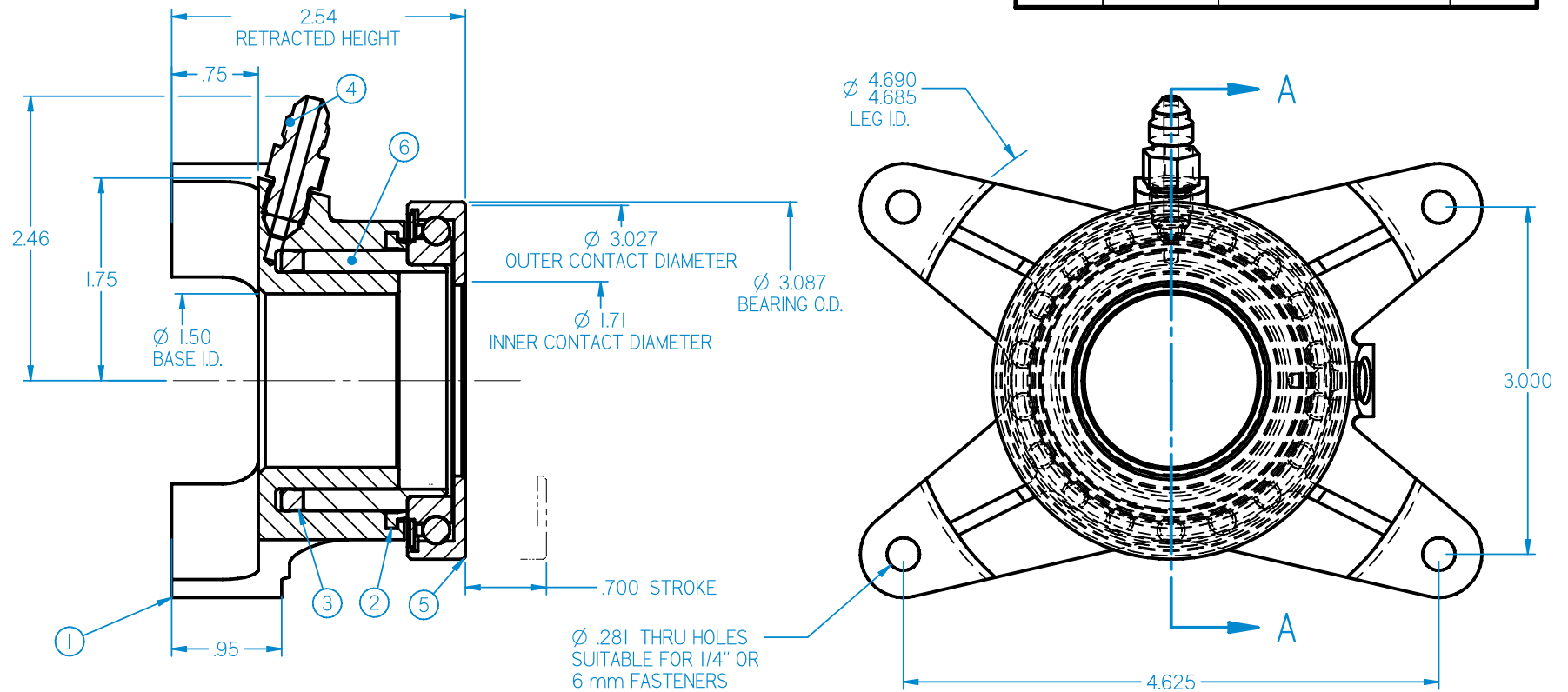
*8.5" - 11.0" bent finger clutches*

*Flat face bearing*

*Aluminum Body & Piston*

60-4100 HRB

ITEM	PART NUMBER	DESCRIPTION	QTY
1	62-402	HYDRAULIC BASE	1
2	62-617	WIPER SEAL	1
3	62-614	HYDRAULIC SEAL	1
4	73-820	FITTING	2
5	62-618	BEARING	1
6	62-6100	PISTON	1



## SECTION A-A

### INSTALLATION NOTES:

1. USE ONLY WITH DOT-3 OR DOT-4 BRAKE FLUID.
2. NO INTERNAL TRAVEL LIMITER. MUST BE USED WITH CLUTCH PEDAL STOP.
3. SEAL REBUILD KIT = 62-905.
4. SEAL INSTALLATION TOOL = 96-002.
5. HYDRAULIC AREA = 1.215 SQ IN.
6. EITHER PORT MAY BE USED FOR FEED OR BLEED.
7. ORIENTATE BLEED PORT TO WITHIN 10 DEGREES OF TOP CENTER TO FACILITATE BLEEDING PROCESS.
8. BOTH PORTS 3/8-24 UNF X .28 THREAD DEPTH.

# 42XX-Series HRB

4-leg | **44mm** bearing



**5.5" - 7.25" clutches**

**Radius face bearing**

**Aluminum Body & Piston**

Mount: **4-bolt pattern**

Bearing contact diameter: **1.75" (44mm)**

Piston Area: **1.215 in<sup>2</sup> (784mm<sup>2</sup>)**

Max Stroke: **.700" (17.8 mm)**

Ports: **AN3 (3/8"-24)**

Weight: **1.15 lbs (varies by p/n)**

Includes: **AN3 fittings (2)**

Part Number	Overall Height	
	with shim	without shim
60-4200	2.62" (66.5mm)	2.57" (65.3mm)
60-4210	2.72" (69.0mm)	2.67" (67.8mm)
60-4220	2.82" (71.6mm)	2.77" (70.4mm)
60-4230	2.92" (74.2mm)	2.87" (72.9mm)
60-4240	3.02" (76.7mm)	2.97" (75.4mm)
60-4250	3.12" (79.2mm)	3.07" (78.0mm)
60-4260	3.22" (81.8mm)	3.17" (80.5mm)
60-4270	3.32" (84.3mm)	3.27" (83.0mm)
60-4280	3.42" (86.9mm)	3.37" (85.6mm)
60-4290	3.52" (89.4mm)	3.47" (88.1mm)

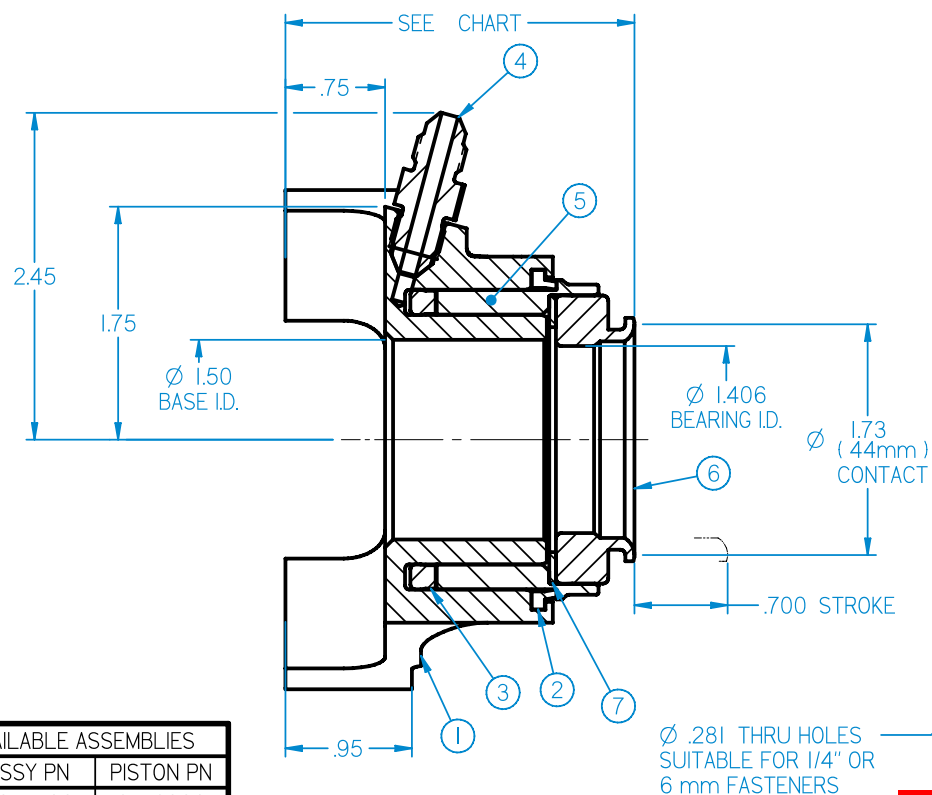
HRB comes from Tilton factory with shim installed in piston under the bearing. Shim can be removed by customer to gain .050" (1.3mm) additional clearance.



# Installation Drawing

## 60-42XX HRB

ITEM	PART NUMBER	DESCRIPTION	QTY
1	62-402	HYDRAULIC BASE	1
2	62-617	WIPER	1
3	62-614	HYDRAULIC SEAL	1
4	73-820	FITTING, AN-3	2
5	SEE CHART	PISTON	1
6	62-031	BEARING	1
7	62-903	SHIM	1



SECTION A-A

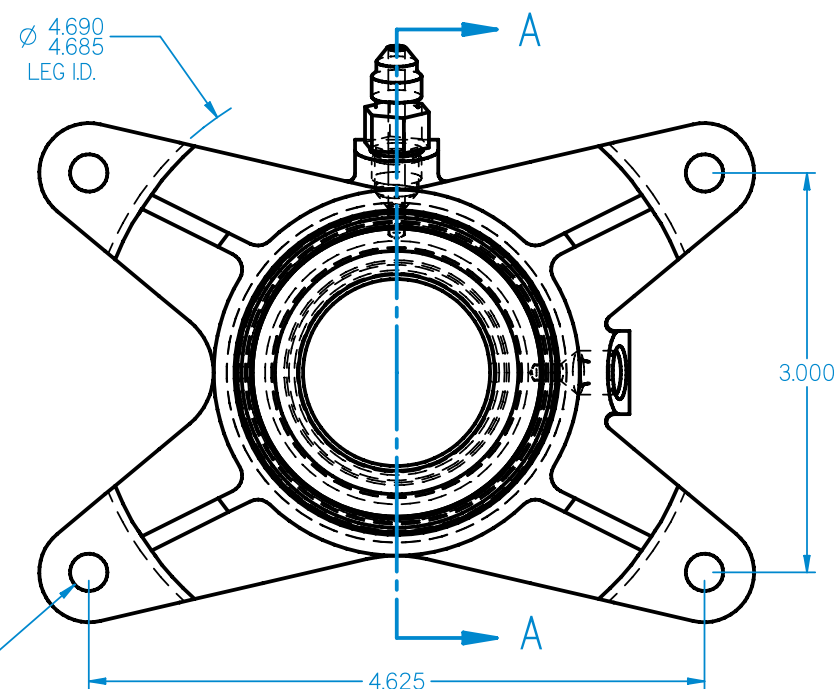


CHART OF AVAILABLE ASSEMBLIES		
HEIGHT	ASSY PN	PISTON PN
2.57"-2.62"	60-4200	62-6000
2.67"-2.72"	60-4210	62-6001
2.77"-2.82"	60-4220	62-6002
2.87"-2.92"	60-4230	62-6003
2.97"-3.02"	60-4240	62-6004
3.07"-3.12"	60-4250	62-6005
3.17"-3.22"	60-4260	62-6006
3.27"-3.32"	60-4270	62-6007
3.37"-3.42"	60-4280	62-6008
3.47"-3.52"	60-4290	62-6009

\* HEIGHTS SHOWN IN CHART ARE WITH AND WITHOUT 62-903 SHIM

### INSTALLATION NOTES:

1. USE ONLY WITH DOT-3 OR DOT-4 BRAKE FLUID.
2. NO INTERNAL TRAVEL LIMITER. MUST BE USED WITH CLUTCH PEDAL STOP.
3. SEAL REBUILD KIT = 62-905.
4. SEAL INSTALLATION TOOL = 96-002.
5. HYDRAULIC AREA = 1.215 SQ IN.
6. EITHER PORT MAY BE USED FOR FEED OR BLEED.
7. ORIENTATE BLEED PORT TO WITHIN 10 DEGREES OF TOP CENTER TO FACILITATE BLEEDING PROCESS.
8. UNIT IS SHIPPED WITH SHIM 62-903 (.050" THICK) INSTALLED UNDER THE BEARING WHICH MAY BE REMOVED FOR ADDITIONAL CLEARANCE.
9. BOTH PORTS 3/8-24 UNF X .28 THREAD DEPTH.



# 43XX-Series HRB

4-leg | **38mm** bearing



**4.5" - 5.5" clutches**

**Radius face bearing**

**Aluminum Body & Piston**

Mount:	<b>4-bolt pattern</b>
Bearing contact diameter:	<b>1.50" (38mm)</b>
Piston Area:	<b>1.215 in<sup>2</sup> (784mm<sup>2</sup>)</b>
Max Stroke:	<b>.700" (17.8 mm)</b>
Ports:	<b>AN3 (3/8"-24)</b>
Weight:	<b>1.20 lbs (varies by p/n)</b>
Includes:	<b>AN3 fittings (2)</b>

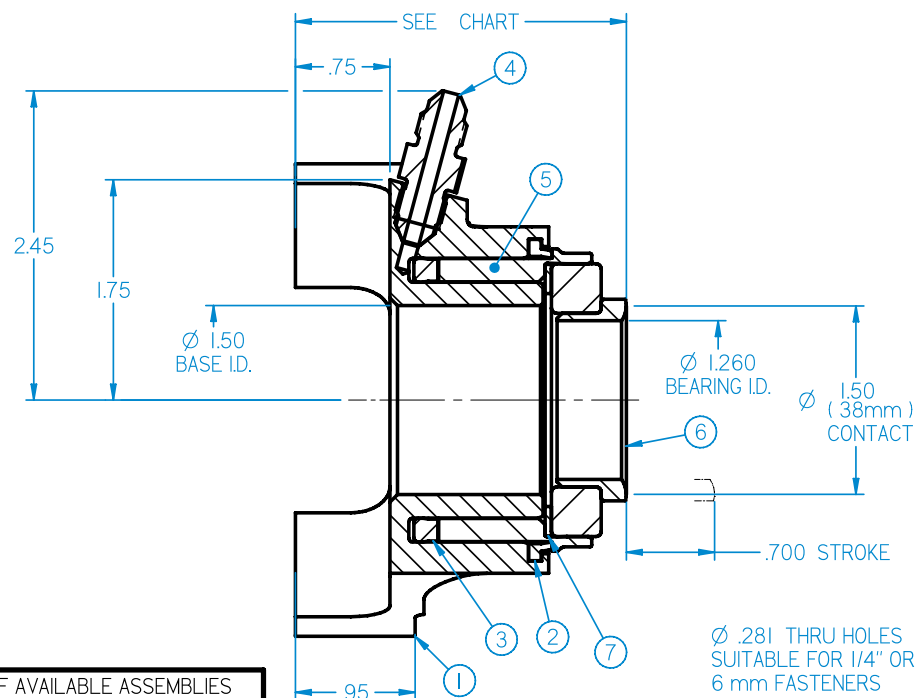
Part Number	Overall Height	
	with shim	without shim
<b>60-4300</b>	2.62" (66.5mm)	2.57" (65.3mm)
<b>60-4310</b>	2.72" (69.0mm)	2.67" (67.8mm)
<b>60-4320</b>	2.82" (71.6mm)	2.77" (70.4mm)
<b>60-4330</b>	2.92" (74.2mm)	2.87" (72.9mm)
<b>60-4340</b>	3.02" (76.7mm)	2.97" (75.4mm)
<b>60-4350</b>	3.12" (79.2mm)	3.07" (78.0mm)
<b>60-4360</b>	3.22" (81.8mm)	3.17" (80.5mm)
<b>60-4370</b>	3.32" (84.3mm)	3.27" (83.0mm)
<b>60-4380</b>	3.42" (86.9mm)	3.37" (85.6mm)
<b>60-4390</b>	3.52" (89.4mm)	3.47" (88.1mm)

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# Installation Drawing

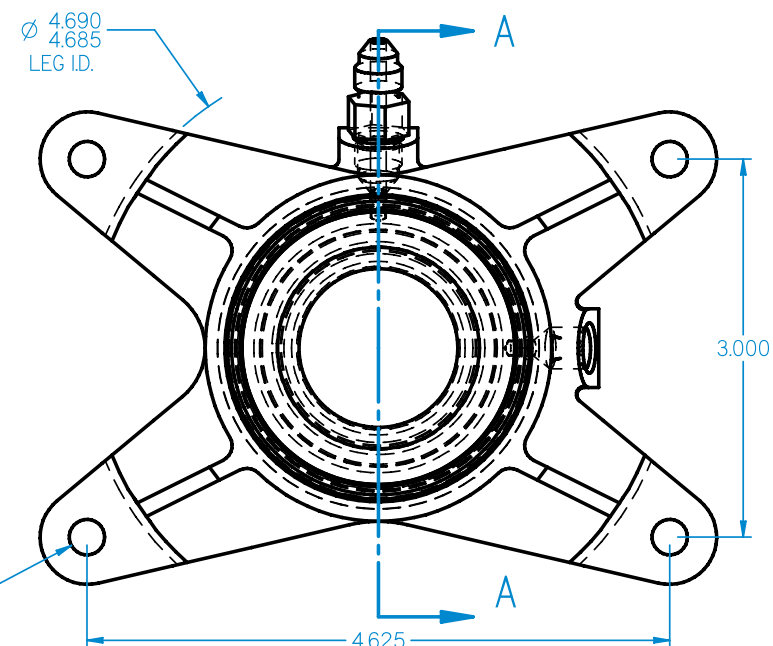
## 60-43XX HRB

ITEM	PART NUMBER	DESCRIPTION	QTY
1	62-402	HYDRAULIC BASE	1
2	62-617	WIPER	1
3	62-614	HYDRAULIC SEAL	1
4	73-820	FITTING, AN-3	2
5	SEE CHART	PISTON	1
6	62-008	BEARING	1
7	62-903	SHIM	1



SECTION A-A

CHART OF AVAILABLE ASSEMBLIES		
HEIGHT	ASSY PN	PISTON PN
2.57"-2.62"	60-4300	62-6000
2.67"-2.72"	60-4310	62-6001
2.77"-2.82"	60-4320	62-6002
2.87"-2.92"	60-4330	62-6003
2.97"-3.02"	60-4340	62-6004
3.07"-3.12"	60-4350	62-6005
3.17"-3.22"	60-4360	62-6006
3.27"-3.32"	60-4370	62-6007
3.37"-3.42"	60-4380	62-6008
3.47"-3.52"	60-4390	62-6009



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8. UNIT IS SHIPPED WITH SHIM 62-903 (.050" THICK) INSTALLED UNDER THE BEARING WHICH MAY BE REMOVED FOR ADDITIONAL CLEARANCE.
9. BOTH PORTS 3/8-24 UNF X .28 THREAD DEPTH.

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