

# tilton®

## 3XXX Series

Typical Application

Bulkhead mounted inside transmissions or bellhousings.



## 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

## **3000-Series HRB**

52mm Bearing

[Installation Drawing](#)

## **32XX-Series HRB**

44mm Bearing

[Installation Drawing](#)

## **3100-Series HRB**

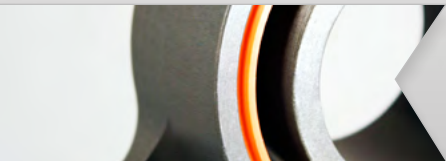
Flat-face Bearing

[Installation Drawing](#)

## **33XX-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.

# 3000-Series HRB

3-leg | **52mm** bearing



Mount: **3-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: **.90 lbs**

Includes: **AN3 fittings (2)**

Part Number	Overall Height
60-3000	3.00" (76.2mm)

*5.5" - 8.5" clutches*

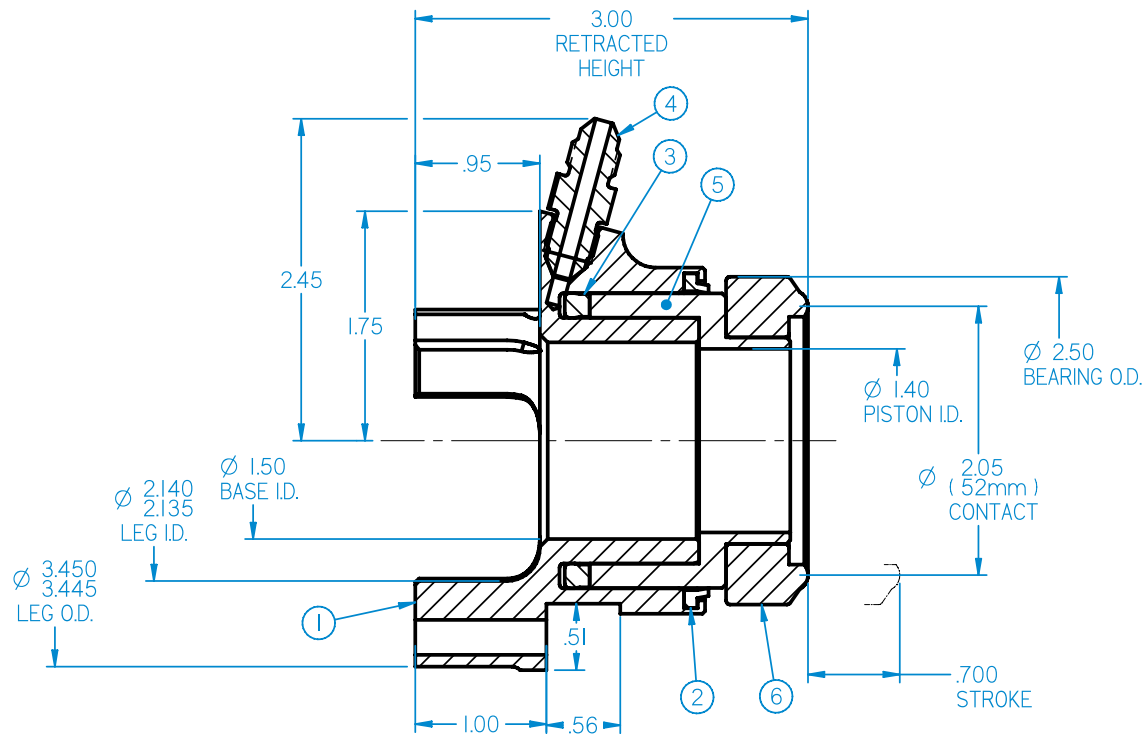
*Radius face bearing*

*Billet Aluminum*

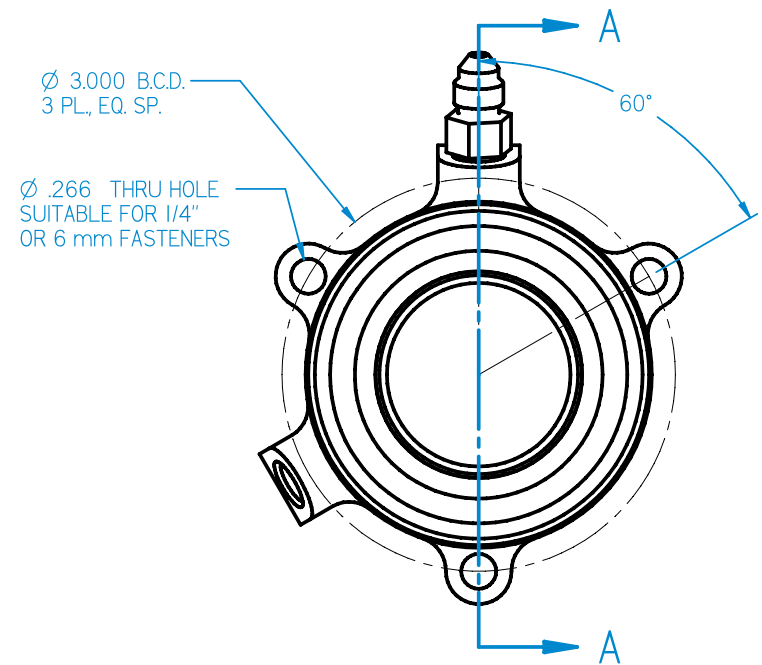
# Installation Drawing

60-3000 HRB

ITEM	PART NUMBER	DESCRIPTION	QTY
1	62-331	HYDRAULIC BASE	1
2	62-617	WIPER SEAL	1
3	62-614	HYDRAULIC SEAL	1
4	73-820	FITTING	2
5	62-612	PISTON	1
6	62-002	BEARING	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 WITH 10 DEGREES OF TOP CENTER TO FACILITATE BLEEDING PROCESS.
8. BOTH PORTS 3/8-24 UNF X .28 THREAD DEPTH.

# 3100-Series HRB

3-leg | **Flat face** bearing



Mount:	3-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:	1.00 lbs
Includes:	AN3 fittings (2)

Part Number	Overall Height
60-3100	2.74" (69.6mm)

*8.5" - 11.0" bent finger clutches*

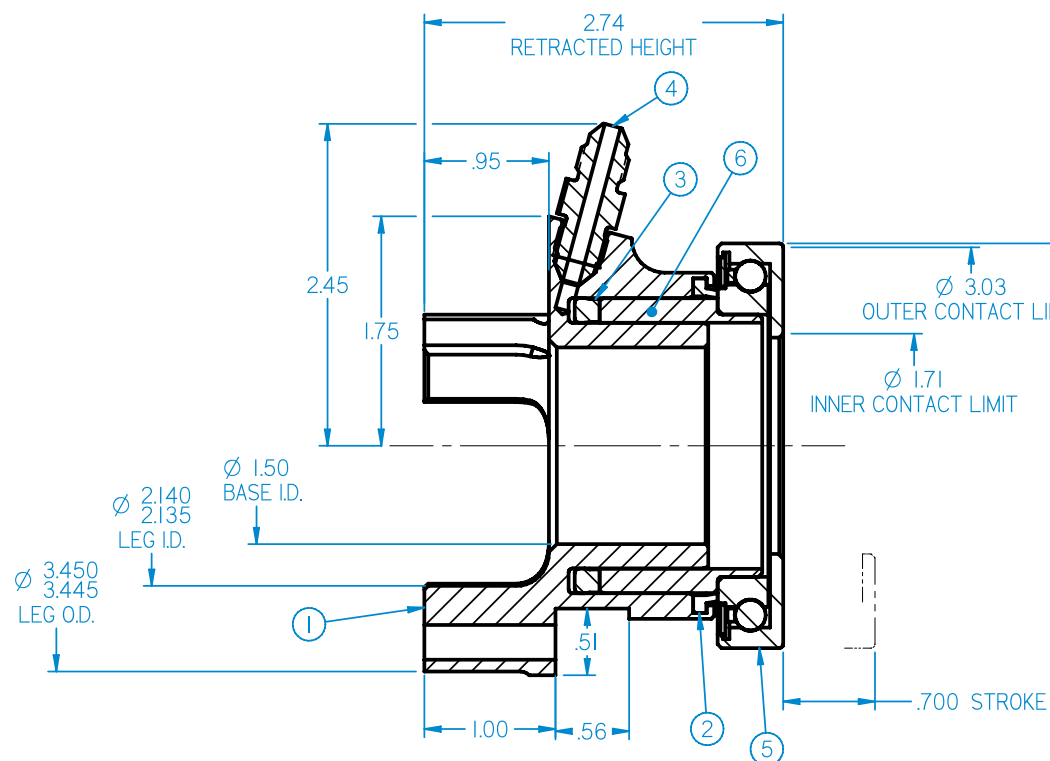
*Flat face bearing*

*Billet Aluminum*

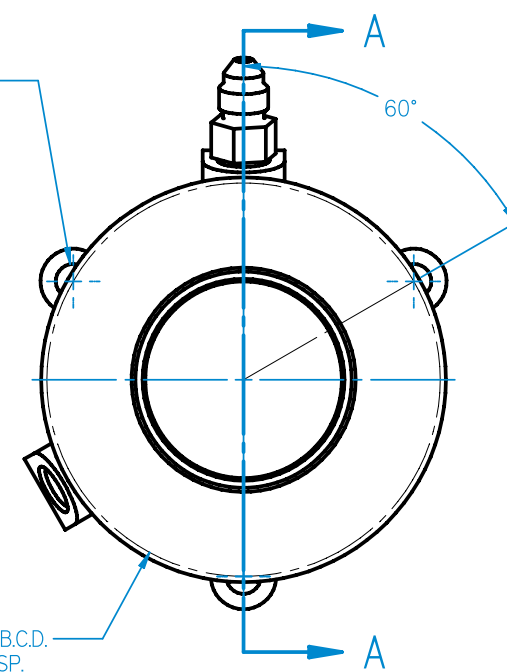
# Installation Drawing

## 60-3100 HRB

ITEM	PART NUMBER	DESCRIPTION	QTY
1	62-331	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



$\varnothing .266$  THRU HOLE  
SUITABLE FOR 1/4"  
OR 6 mm FASTENERS



### 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.

# 32XX-Series HRB

3-leg | **44mm** bearing



**5.5" - 7.25" clutches**

**Radius face bearing**

**Billet Aluminum**

Mount: **3-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: **.75 lbs (varies by p/n)**

Includes: **AN3 fittings (2)**

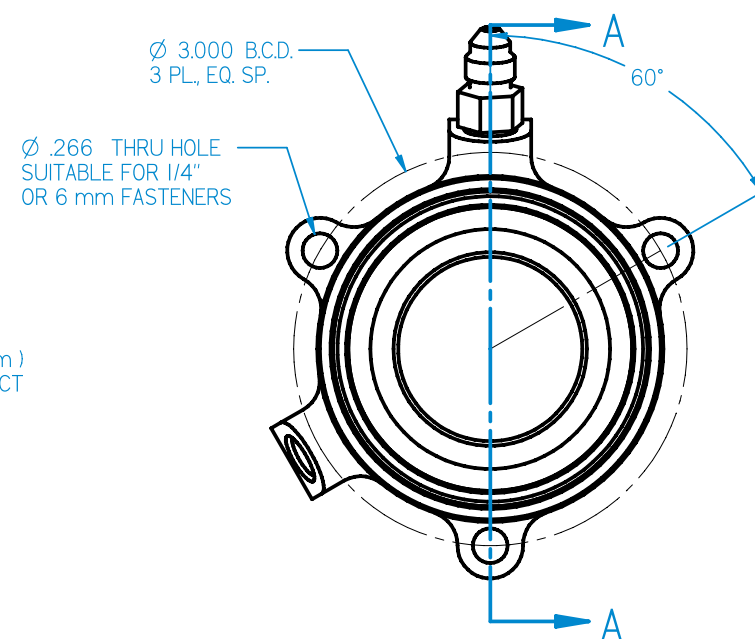
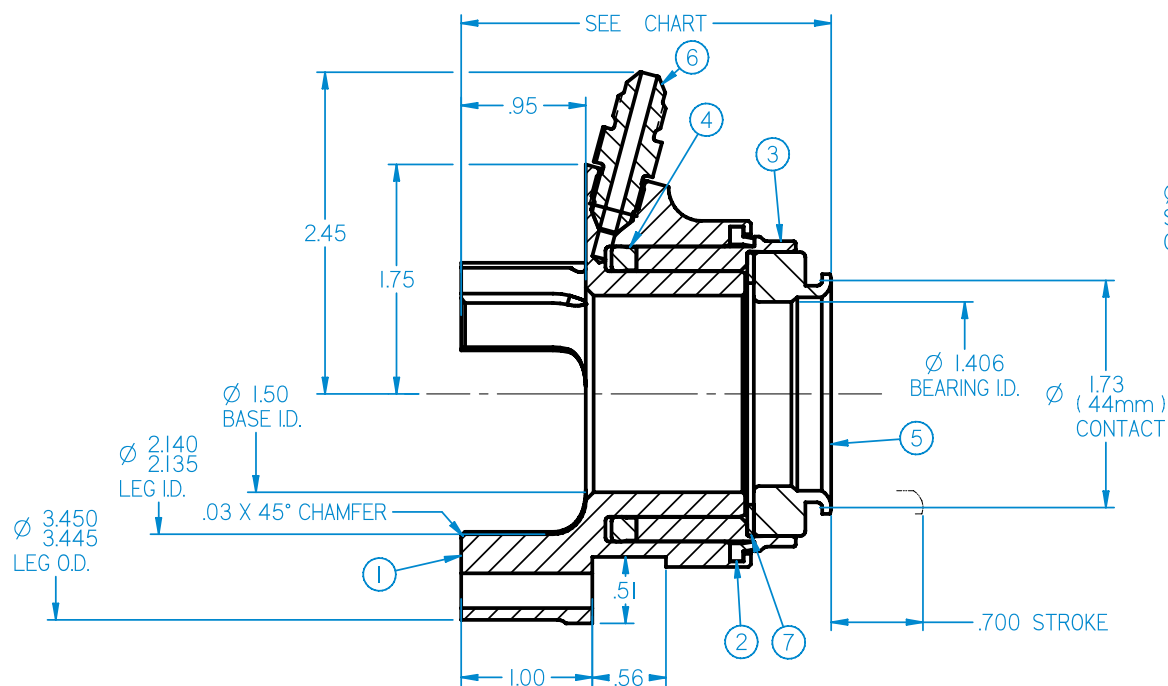
Part Number	Overall Height	
	with shim	without shim
60-3200	2.82" (71.6mm)	2.77" (70.4mm)
60-3210	2.92" (74.2mm)	2.87" (72.9mm)
60-3220	3.02" (76.7mm)	2.97" (75.4mm)
60-3230	3.12" (79.2mm)	3.07" (78.0mm)
60-3240	3.22" (81.8mm)	3.17" (80.5mm)
60-3250	3.32" (84.3mm)	3.27" (83.1mm)
60-3260	3.42" (86.9mm)	3.37" (85.6mm)
60-3270	3.52" (89.4mm)	3.47" (88.1mm)
60-3280	3.62" (91.9mm)	3.57" (90.7mm)
60-3290	3.72" (94.5mm)	3.67" (93.2mm)

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

## 60-32XX HRB

ITEM	PART NUMBER	DESCRIPTION	QTY
1	62-331	HYDRAULIC BASE	1
2	62-617	WIPER	1
3	SEE CHART	PISTON	1
4	62-614	HYDRAULIC SEAL	1
5	62-031	BEARING	1
6	73-820	FITTING, AN-3	2
7	62-903	SHIM	1



### SECTION A-A

CHART OF AVAILABLE ASSEMBLIES		
HEIGHT	ASSY PN	PISTON PN
2.77"-2.82"	60-3200	62-6000
2.87"-2.92"	60-3210	62-6001
2.97"-3.02"	60-3220	62-6002
3.07"-3.12"	60-3230	62-6003
3.17"-3.22"	60-3240	62-6004
3.27"-3.32"	60-3250	62-6005
3.37"-3.42"	60-3260	62-6006
3.47"-3.52"	60-3270	62-6007
3.57"-3.62"	60-3280	62-6008
3.67"-3.72"	60-3290	62-6009

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

### INSTALLATION NOTES:

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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 WITH 10 DEGREES OF TOP CENTER TO FACILITATE BLEEDING PROCESS.
8. UNIT IS SHIPPED WITHSHIM 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.



# 33XX-Series HRB

3-leg | **38mm** bearing



**4.5" - 5.5" clutches**

**Radius face bearing**

**Billet Aluminum**

Mount:	<b>3-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>.80 lbs (varies by p/n)</b>
Includes:	<b>AN3 fittings (2)</b>

Part Number	Overall Height	
	with shim	without shim
<b>60-3300</b>	2.82" (71.6mm)	2.77" (70.4mm)
<b>60-3310</b>	2.92" (74.2mm)	2.87" (72.9mm)
<b>60-3320</b>	3.02" (76.7mm)	2.97" (75.4mm)
<b>60-3330</b>	3.12" (79.2mm)	3.07" (78.0mm)
<b>60-3340</b>	3.22" (81.8mm)	3.17" (80.5mm)
<b>60-3350</b>	3.32" (84.3mm)	3.27" (83.1mm)
<b>60-3360</b>	3.42" (86.9mm)	3.37" (85.6mm)
<b>60-3370</b>	3.52" (89.4mm)	3.47" (88.1mm)
<b>60-3380</b>	3.62" (91.9mm)	3.57" (90.7mm)
<b>60-3390</b>	3.72" (94.5mm)	3.67" (93.2mm)

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2	62-617	WIPER	1
3	SEE CHART	PISTON	1
4	62-614	HYDRAULIC SEAL	1
5	62-008	BEARING	1
6	73-820	FITTING, AN-3	2
7	62-903	SHIM	1

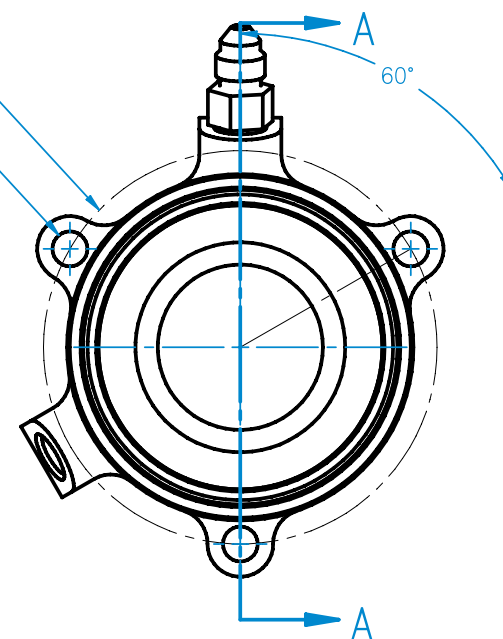
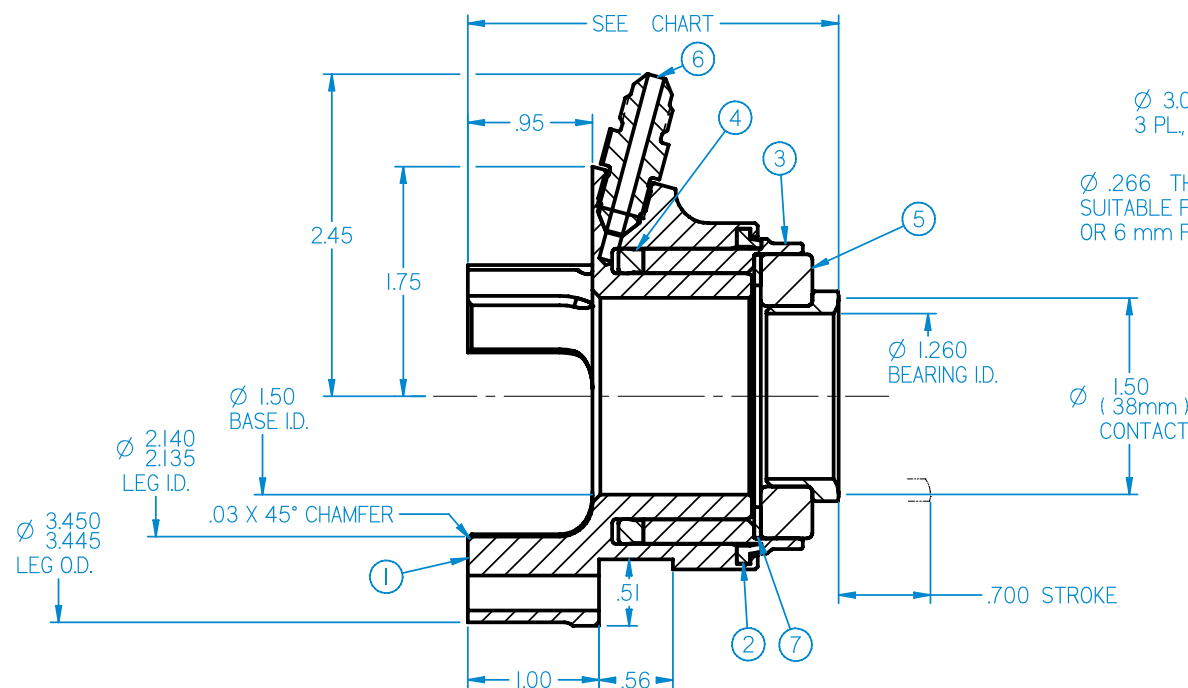


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3.17"-3.22"	60-3340	62-6004
3.27"-3.32"	60-3350	62-6005
3.37"-3.42"	60-3360	62-6006
3.47"-3.52"	60-3370	62-6007
3.57"-3.62"	60-3380	62-6008
3.67"-3.72"	60-3390	62-6009

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