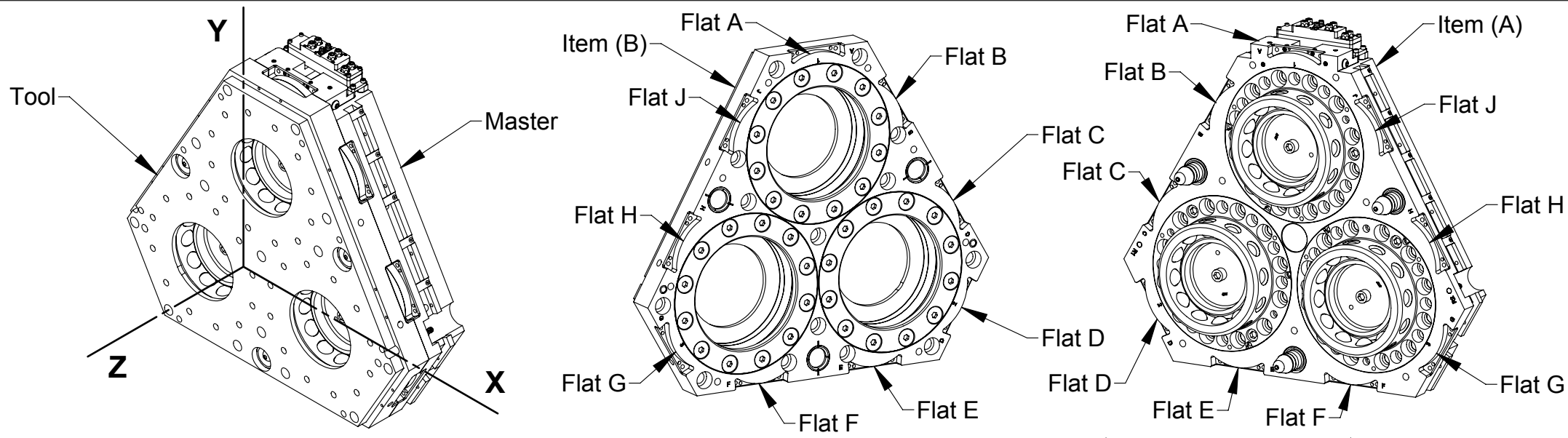
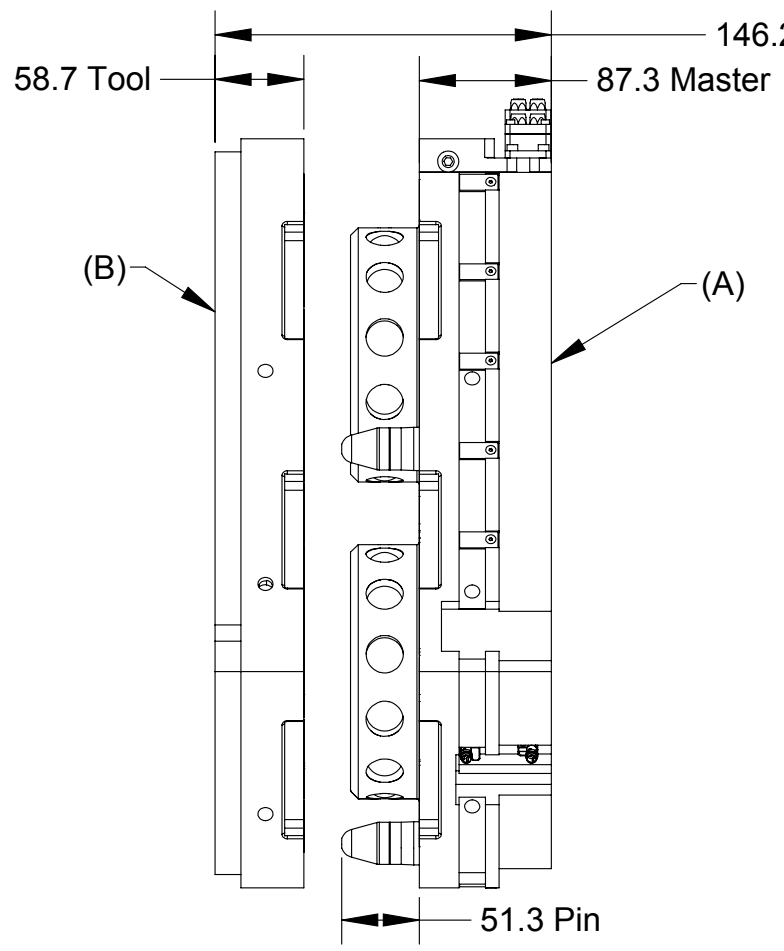
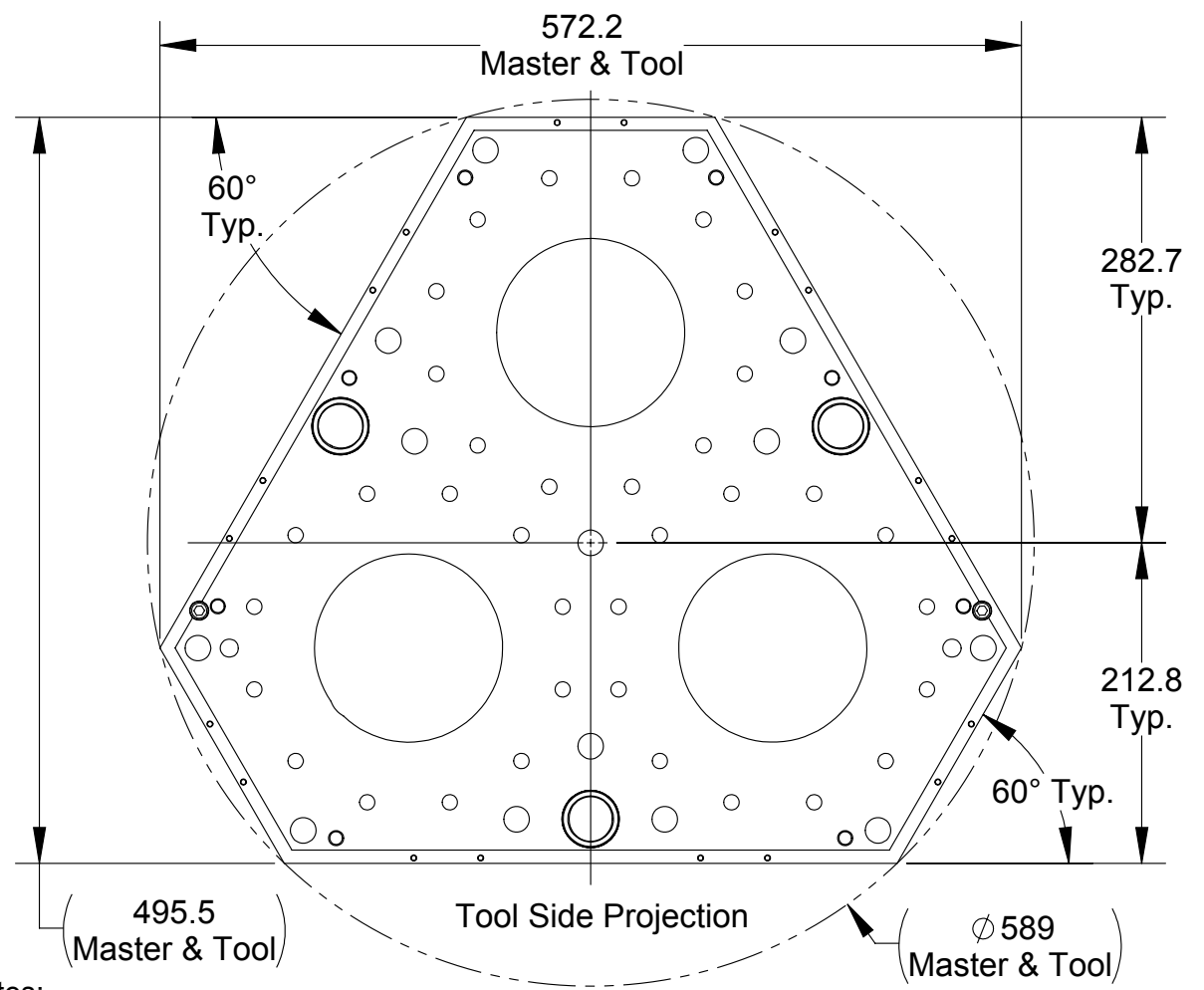


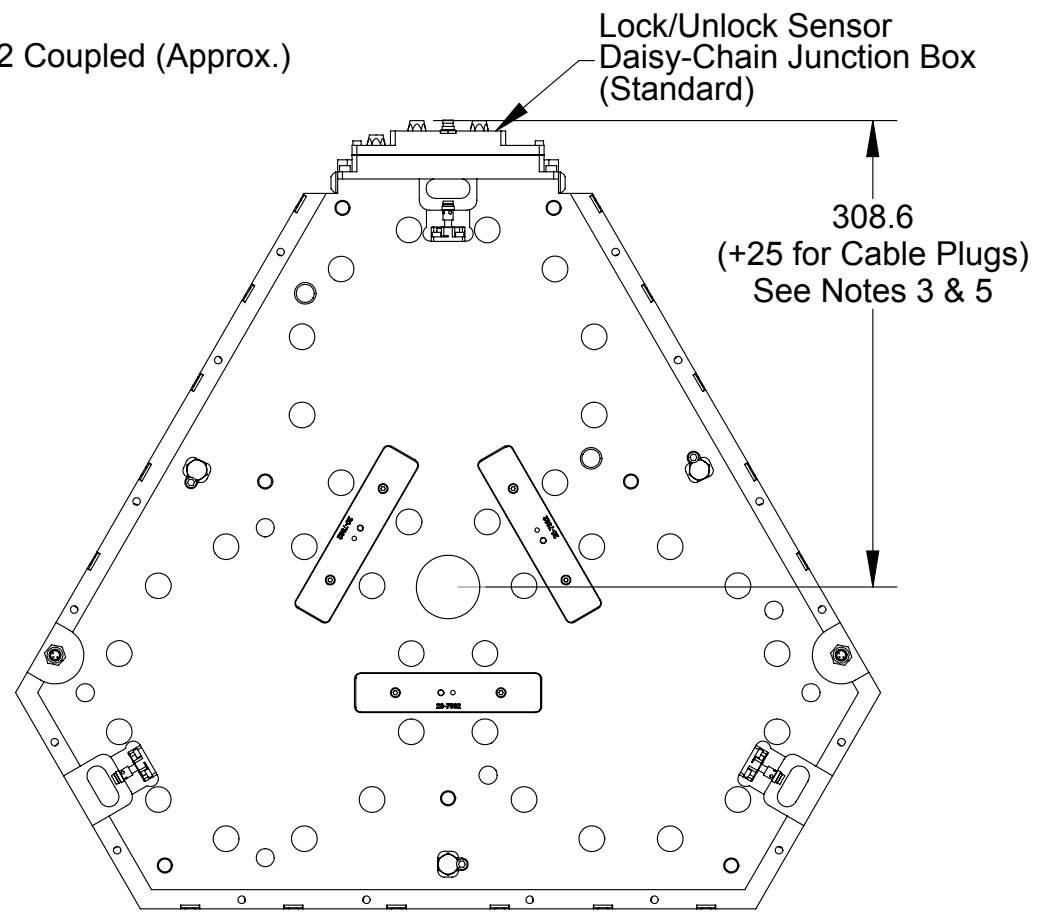
Rev.	Description	Initiator	Date
03	ECO 18073: Sheet 5: Replaced 3500-1272045-15 with 3500-1272045-15A. Updated callout from "Loctite 262 / 60 ft-lb" to "Pre / 60-65 ft-lb".	TBC	7/25/2019



Part Numbers:
 (A) Master: 9121-1510AM-0-0-0-0-0-0-0-0-0-0-SM, or
 9121-1510AM-0-0-0-0-0-0-0-0-0-0-SP
 (See Note 5)
 (B) Tool: 9121-1510AT-0-0-0-0-0-0-0-0-0-0



Side View Projection (Uncoupled)



Master Side Projection

- Notes:
- Materials of construction:
 Locking Mechanism: Hardened 440C Stainless
 Alignment Features: Hardened 440C Stainless & Hardened Tool Steel.
 Bodies: 7075-T651 Aluminum or Equivalent, Soft Coat 2B anodized.
 - The tool changer consists of (3) locking mechanisms that share a common lock/unlock air supply.
 - Each locking mechanism features lock/unlock detection. The lock/unlock sensors are daisy-chained to simplify monitoring the lock/unlock signals.
 - The tool changer implements (2) Ready-To-Lock (RTL) sensors.
 - The "SM" in the master part number indicates PNP lock/unlock and RTL sensors.
 The "SP" in the master part number indicates NPN lock/unlock and RTL sensors
 (The sensor cables are not shown for drawing clarity).
 - The fasteners shown on sheets 2 & 3 are for illustration only. The fasteners must be supplied by the customer or the length must be specified by the customer.
 - Mounting patterns are dimensioned on sheets 2 & 3.

NOTES: UNLESS OTHERWISE SPECIFIED.

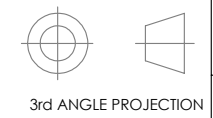
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DRAWN BY: D.Lawson-10/3/12

CHECKED BY: M.Gloden-10/4/12

TITLE
 QC-1510 Base Tool Changer

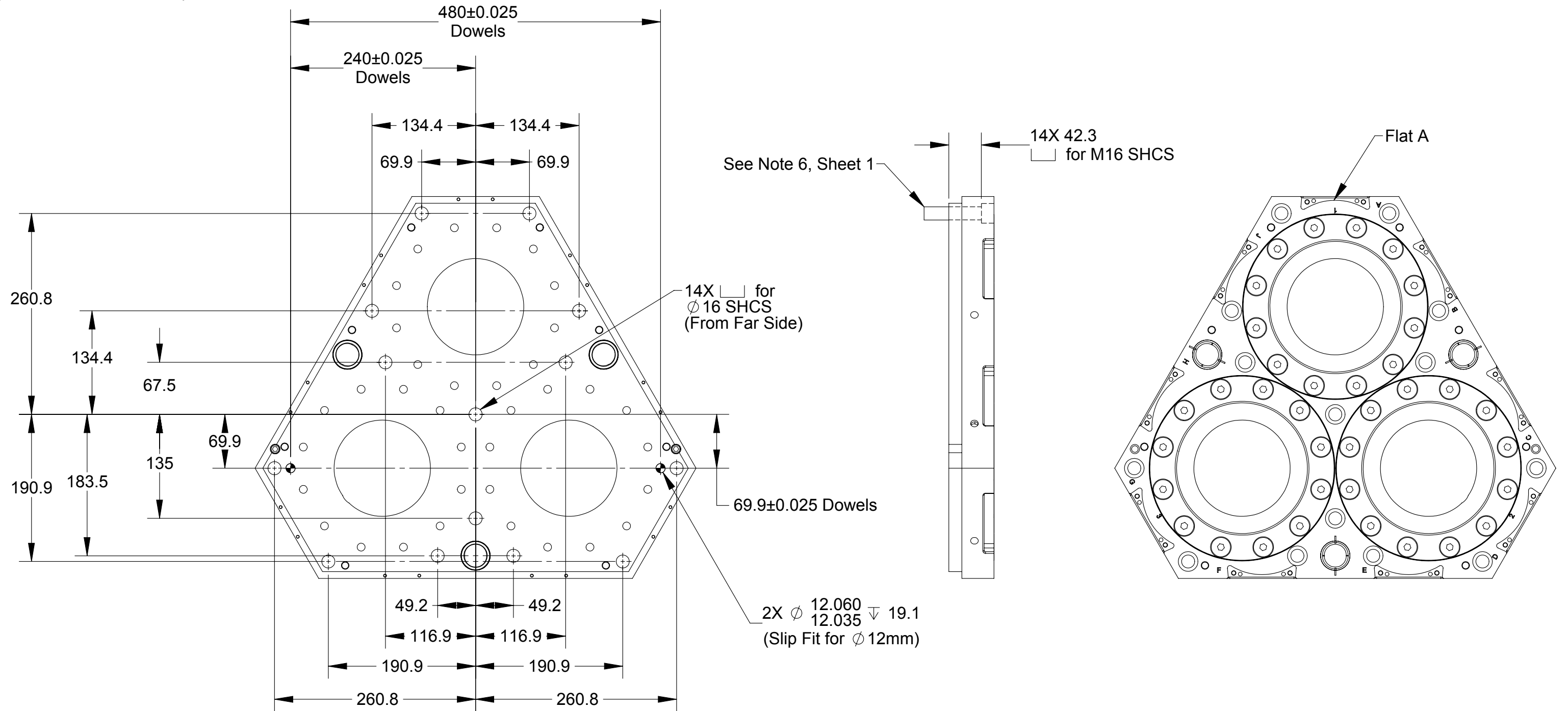


PROJECT # 120314-1 SHEET 1 OF 5

SCALE	SIZE	DRAWING NUMBER	REVISION
1:6	B	9630-20-1510	03

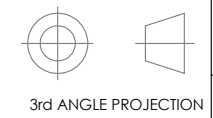
QC-1510 Tool Side Mounting Pattern

(Customer Interface)



NOTES: UNLESS OTHERWISE SPECIFIED.

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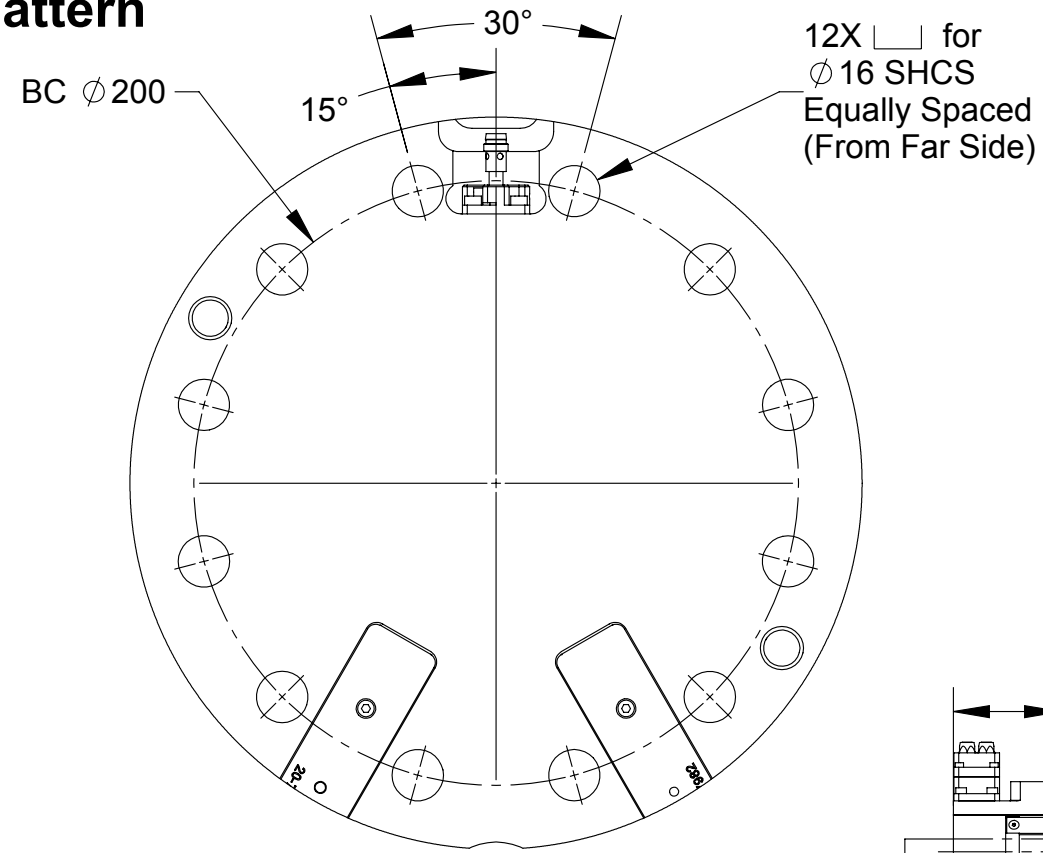


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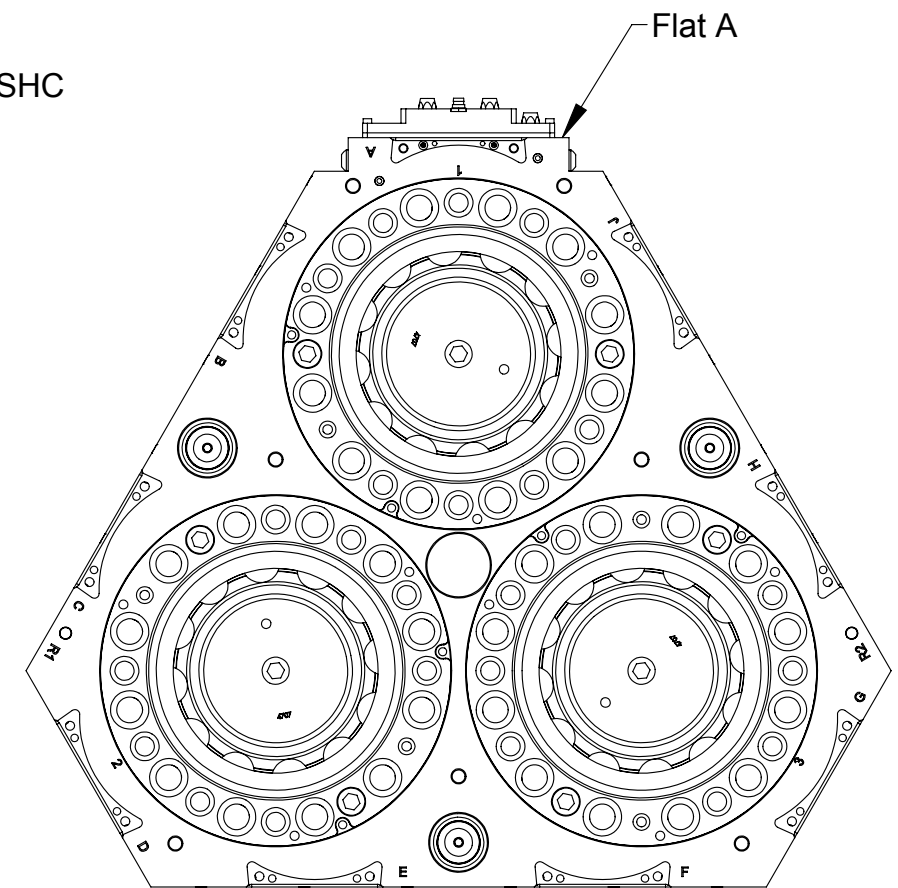
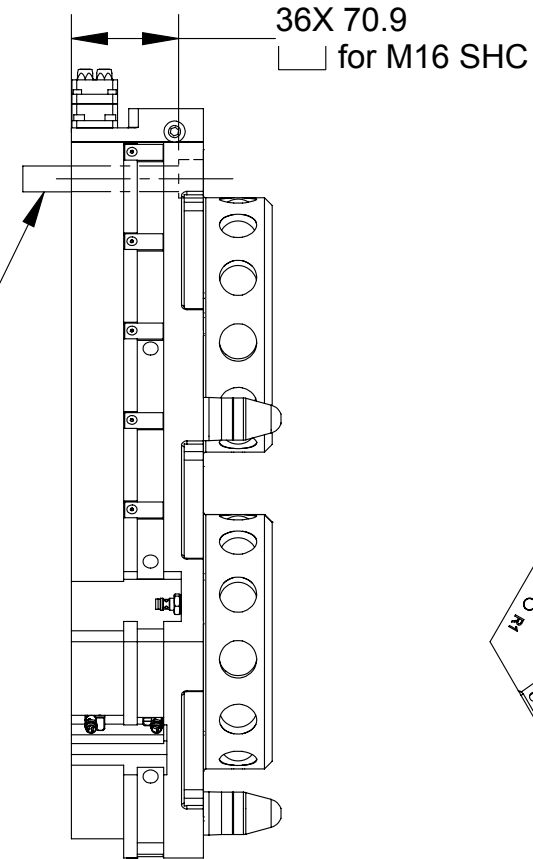
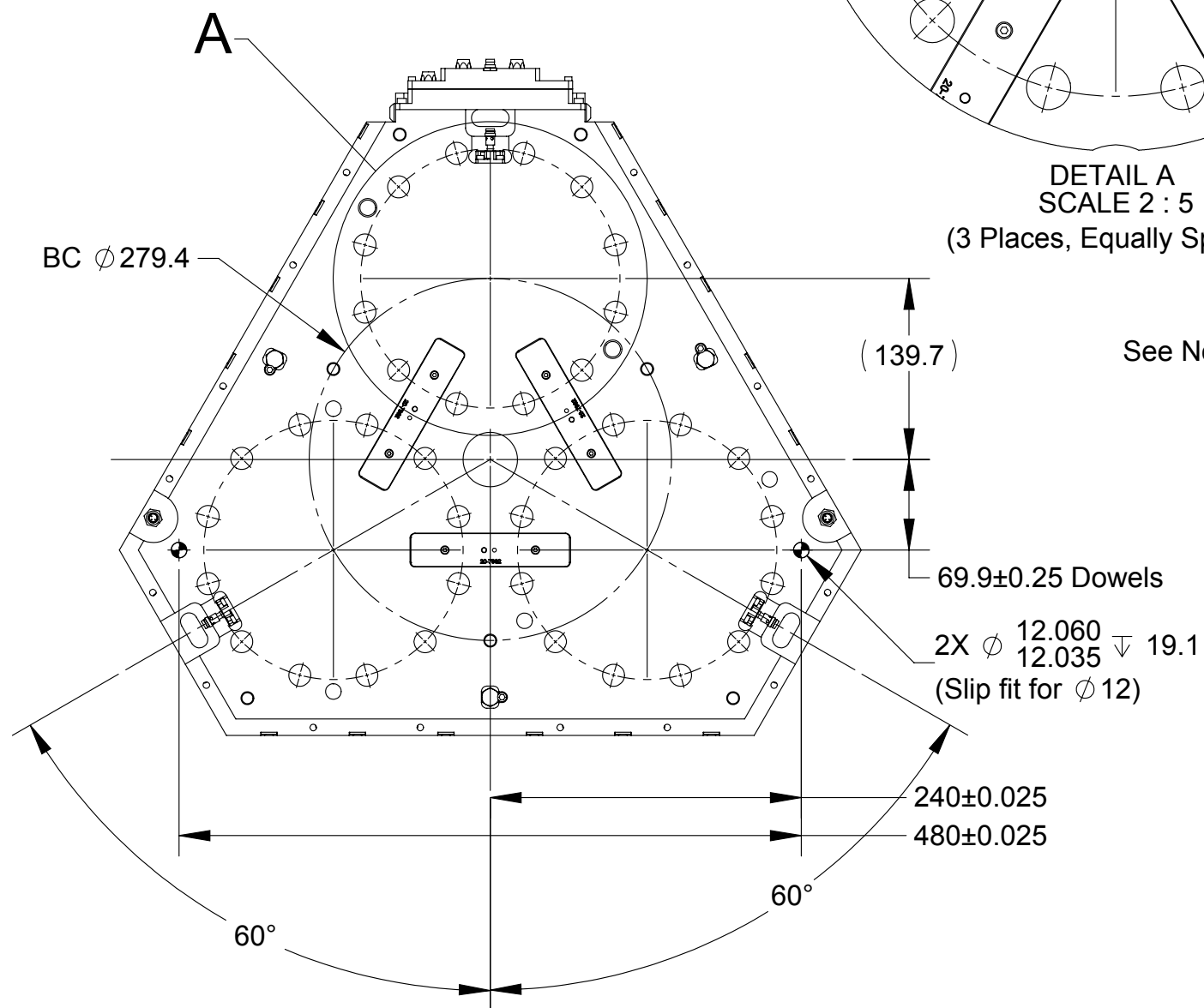
DRAWN BY: D.Lawson-10/3/12		TITLE	
CHECKED BY: M.Gloden-10/4/12		QC-1510 Base Tool Changer	
PROJECT #	120314-1	SHEET	OF 5
SCALE	1:5	SIZE	B
DRAWING NUMBER	9630-20-1510		REVISION
			03

QC-1510 Master Side Mounting Pattern (Customer Interface)



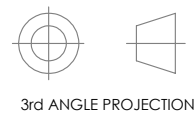
DETAIL A
SCALE 2 : 5
(3 Places, Equally Spaced)

See Note 6, Sheet 1



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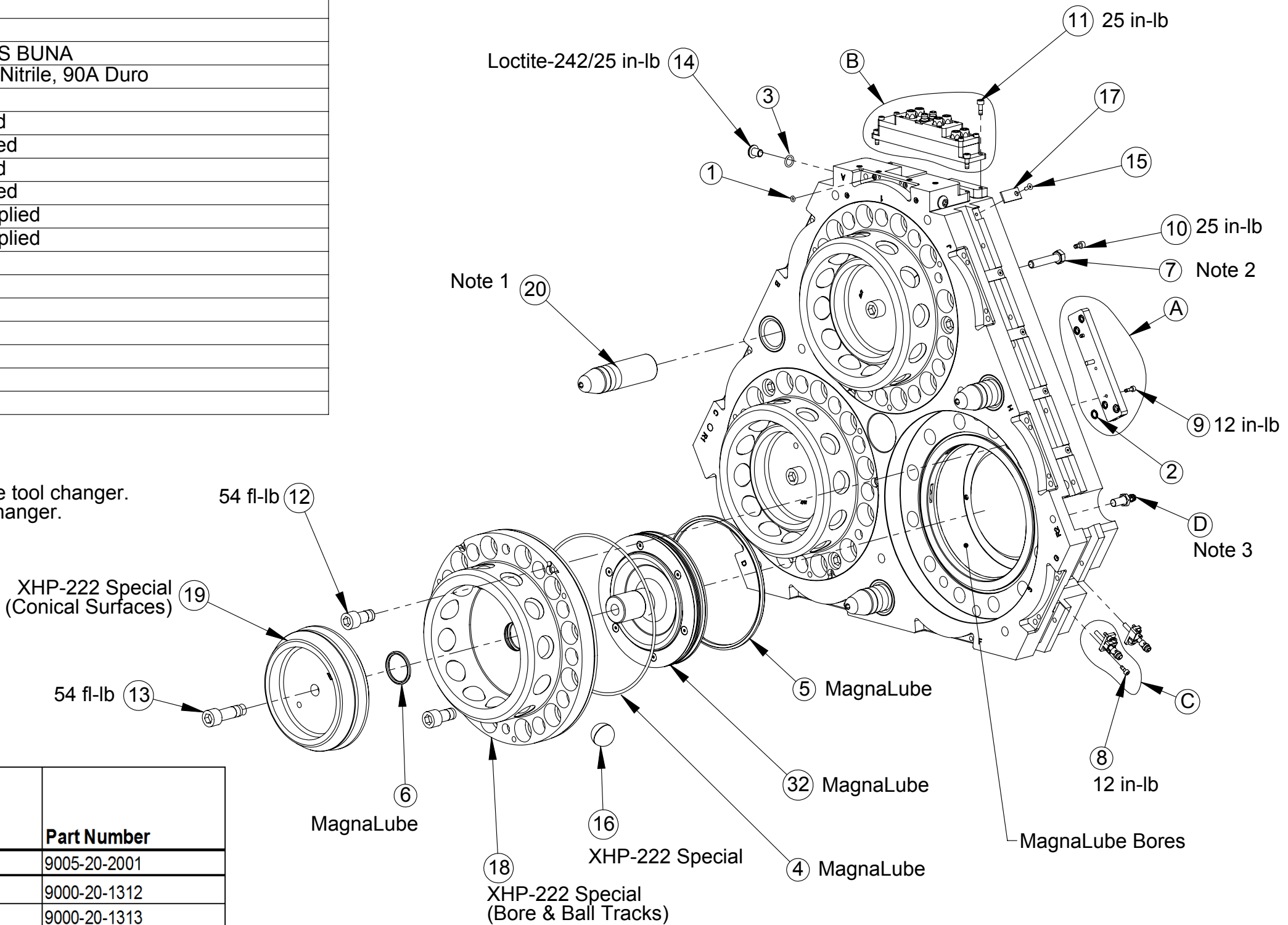
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DRAWN BY: D.Lawson-10/3/12		TITLE	
CHECKED BY: M.Gloden-10/4/12		QC-1510 Base Tool Changer	
PROJECT #	120314-1	SHEET	OF 5
SCALE	1:5	SIZE	B
DRAWING NUMBER	9630-20-1510	REVISION	03

QC-1510 Master Components

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	2	3410-0001016-01	O-ring 1/16 x 1/8 I.D. x 1/4 O.D.
2	12	3410-0001106-01	O-RING, AS568-010
3	2	3410-0001119-01	O-ring 3/8x1/2x1/16
4	3	3410-0001159-01	O-RING 171mm ID x 3mm CS BUNA
5	3	3410-0001160-01	O-RING P135 134.6mm ID x 5.7mm CS BUNA
6	3	3410-0001299-01	O-Ring, JISA-P30, (29.7mm x 3.5mm), Nitrile, 90A Duro
7	3	3500-0868040-11	M8 x 40 HHCS, Black Oxide
8	12	3500-1058008-15A	M3-0.5 x 8mm SHCS, Blue, Pre-Applied
9	16	3500-1058010-15A	M3-0.5 x 10mm SHCS, Blue, Pre-Applied
10	3	3500-1062008-15A	M4-0.7 x 8mm SHCS, Blue, Pre-Applied
11	4	3500-1062012-15A	M4-0.7 x 12mm SHCS, Blue, Pre-Applied
12	6	3500-1072025-15A	M12-1.75 x 25mm SHCS, Blue, Pre-Applied
13	3	3500-1072035-15A	M12-1.75 x 35mm SHCS, Blue, Pre-Applied
14	2	3500-1168010-21	SBHCS, M8x10, SS
15	16	3500-1258008-11	M3 x 8mm SFHCS Black Oxide
16	36	3700-20-3454	25mm DIA. BALL
17	16	3700-20-4092	Large Cable Retaining Tab
18	3	3700-20-4182	MALE COUPLING, QC-510
19	3	3700-20-4707	Cam, Back Angle, QC-500/510
20	3	3700-20-6025	Alignment Pin, 1-1/8" Dia., Stepped

- Notes:
- Loctite-242 / 60 in-lb During Installation.
Lubricant XHP-222 Special After Installation.
 - No threadlocker. Insert the bolts into the pockets on the back of the tool changer.
 - No threadlocker on sensor. Set sensor flush with top side of tool changer.
Turn sensor nut 1/4 turn after first contact with tool changer body.



Subassembly Item	Description	Part Number
A	Plenum Bar Assembly, QC-1510	9005-20-2001
B	PNP Lock/Unlock Daisy-Chain Junction Box Assembly, QC-1510	9000-20-1312
	NPN Lock/Unlock Daisy-Chain Junction Box Assembly, QC-1510	9000-20-1313
C	PNP Lock/Unlock Sensor Assembly, QC-110	9005-20-1917
	NPN Lock/Unlock Sensor Assembly, QC-110	9005-20-1918
D	PNP Proximity Switch, 2mm Range, Quick Disconnect	8590-9909999-34
	NPN Proximity Switch, 2mm Range, Quick Disconnect	8590-9909999-120
E	QC-510/1510 Piston Subassembly	9005-20-2059

Tool changers ending with the suffix "SM" have PNP Sensors.
Tool changers ending with the suffix "SP" have NPN Sensors.
The subassemblies are supplied with the components shown within the outlined regions.

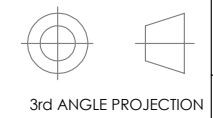
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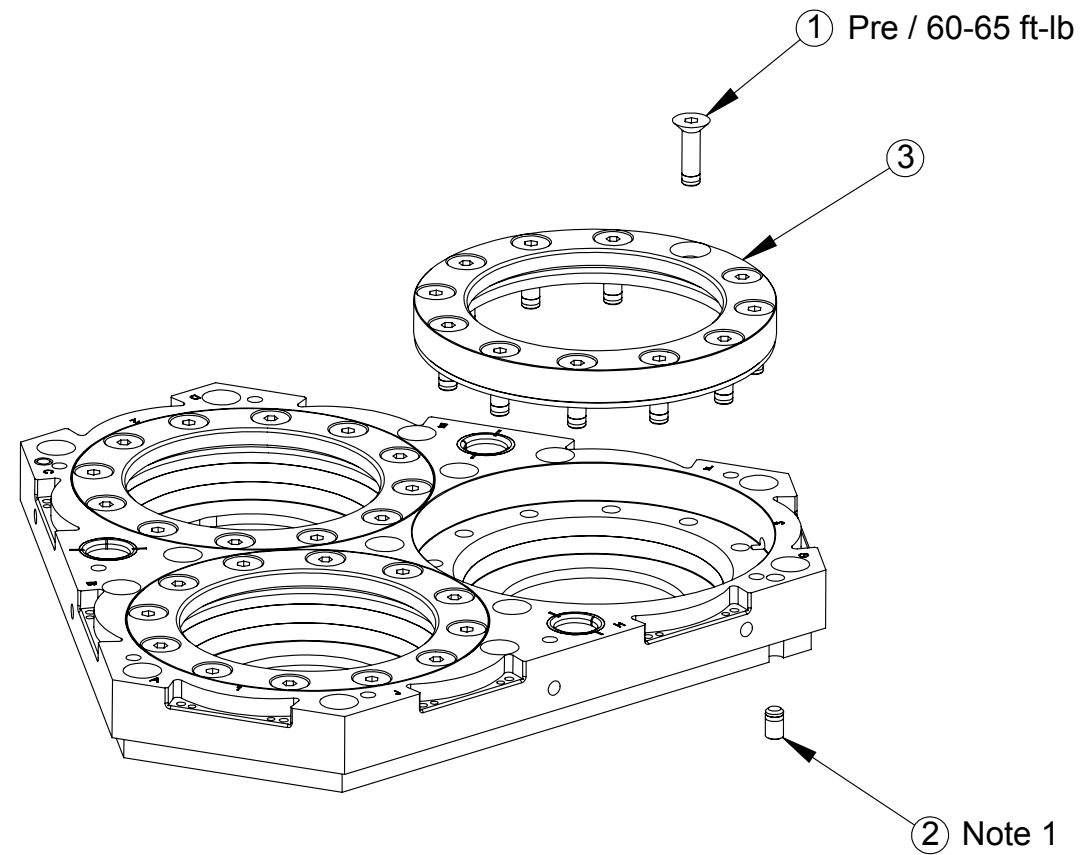
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DRAWN BY: D.Lawson-10/3/12		TITLE	
CHECKED BY: M.Gloden-10/4/12		QC-1510 Base Tool Changer	
PROJECT #	120314-1	SHEET	4 OF 5
SCALE	1:5	SIZE	B
DRAWING NUMBER	9630-20-1510	REVISION	03



QC-1510 Tool Components



ITEM NO.	PART NUMBER	DESCRIPTION
1	3500-1272045-15A	M12-1.75 x 45mm SFHCS, Blue, Pre-applied
2	3500-1972020-22A	M12 x 20mm Set Screw Flat Point SST - Pre-Applied
3	3700-20-3453	BEARING RACE, QC-500

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3rd ANGLE PROJECTION



DRAWN BY: D.Lawson-10/3/12		TITLE		
CHECKED BY: M.Gloden-10/4/12		QC-1510 Base Tool Changer		
PROJECT #	120314-1	SHEET	5	OF 5
SCALE	1:5	SIZE	B	DRAWING NUMBER
				9630-20-1510
				REVISION
				03

Notes:

1. Install the set screws with their flat face flush with top side of the tool changer.