

## PARTS LIST



TP8205A

# T-51 T-65 Multi-Tasking CNC Lathes

**Equipped with a  
Fanuc 31*i*-T Control**

Revised: February 1, 2021  
**Original Instructions**

Manual No. PL-115B  
Part No. PLB-0009500-0115

Litho in U.S.A.  
June, 2017

## TO ORDER REPLACEMENT PARTS

Please provide the following information when ordering replacement parts:

1. The complete machine serial number. The serial number tag is located on the power case door.
2. List the following:
  - A) Manual Number (PL-115B).
  - B) Page Number.
  - C) Item Number.
  - D) Part Description.
  - E) Part Number.
  - F) Quantity of each part required.
3. Specify how and where to ship.

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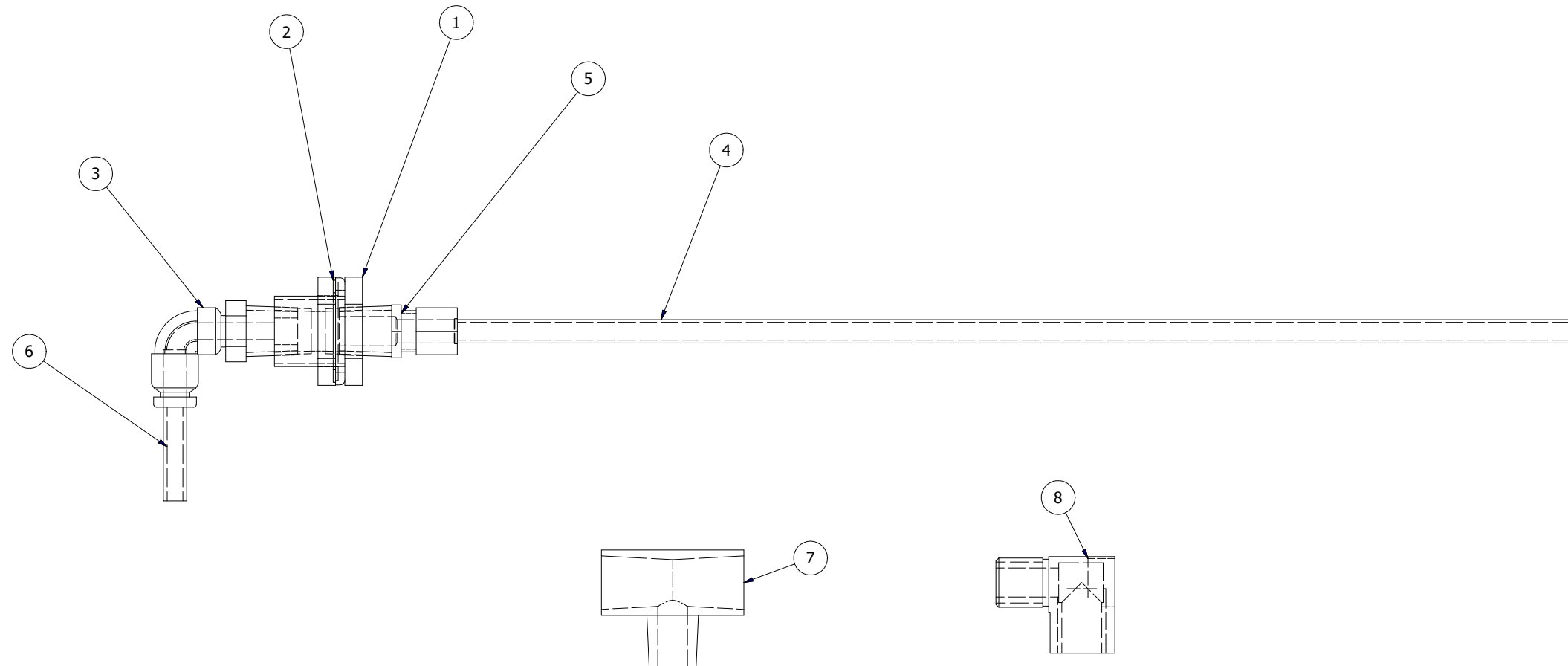
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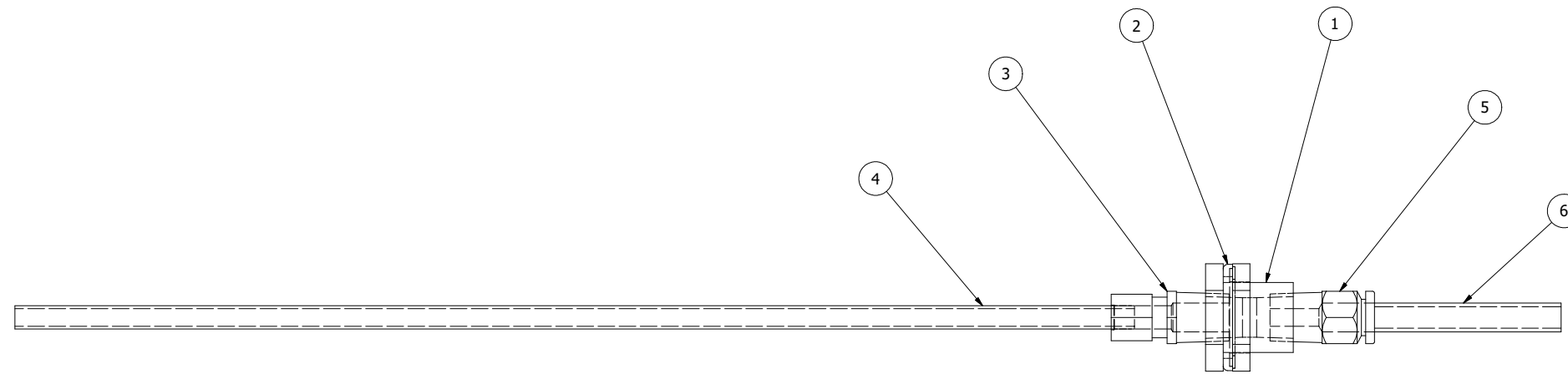
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ITEM	PART NUMBER	QTY	DESCRIPTION
1	CC 000770301	1	BULKHEAD, 1/4 NPT
2	50 0010226	1	GASKET ASSEMBLY, 1/2 INCH
3	HG 000770207	1	ELBOW, 1/4 PUSH IN X 1/4 NPT
4	CQ 0010109	3	TUBE, AIR BLAST
5	CQ 000770305	3	CONNECTOR, 1/4" NPT X 1/4" TUBE
6	HS 000700747	8 FT	TUBING, 1/4 OD
7	VL 000770231	1	TEE, 1/4 MALE BRANCH
8	AO 0010786	2	ELBOW, STREET



AIR BLAST, MAIN SPINDLE  
CQA0000238 M

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CC 000770301	1	BULKHEAD, 1/4 NPT
2	50 0010226	1	GASKET ASSEMBLY, 1/2 INCH
3	CQ 000770305	3	CONNECTOR, 1/4" NPT X 1/4" TUBE
4	CQ 0010109	3	TUBE, AIR BLAST
5	HG 000770203	1	CONNECTOR, MALE 1/4 STRAIGHT
6	HG 0007007	37 FT	TUBING, 5/16 OD

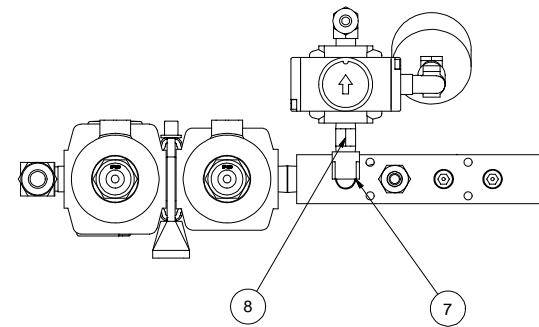
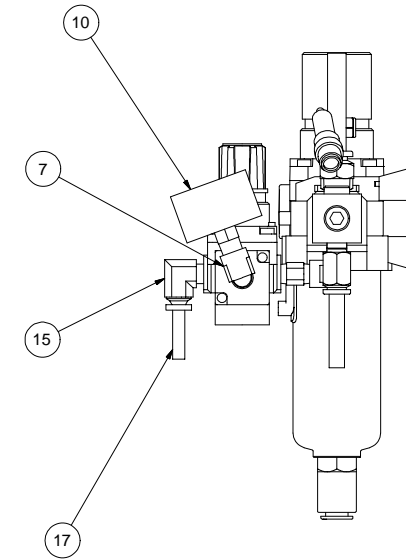
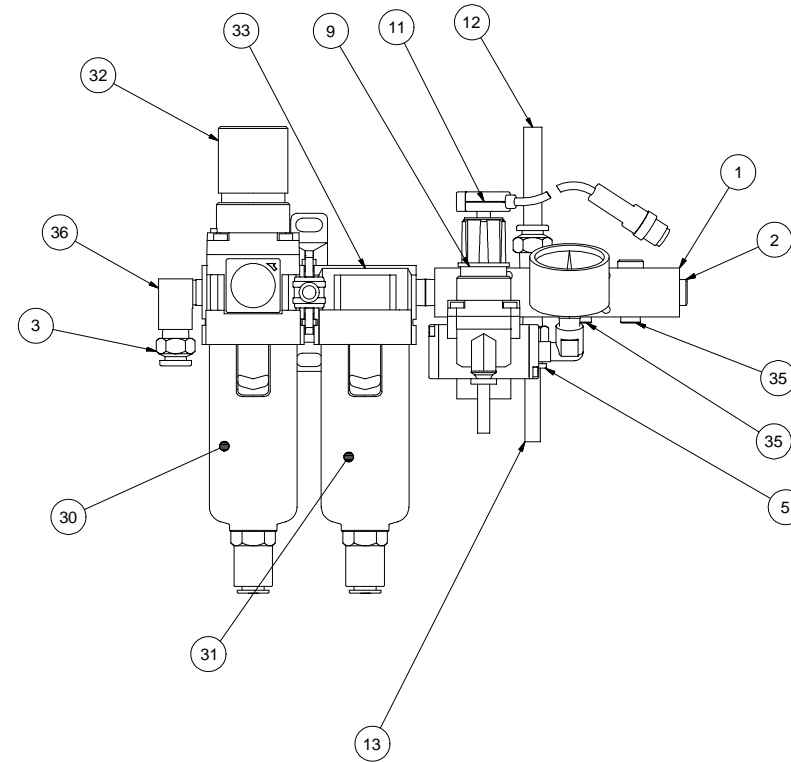
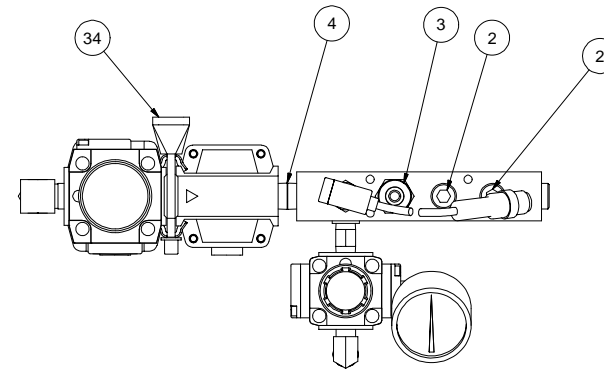


AIR BLAST, SUB-SPINDLE  
CQA0000238SS

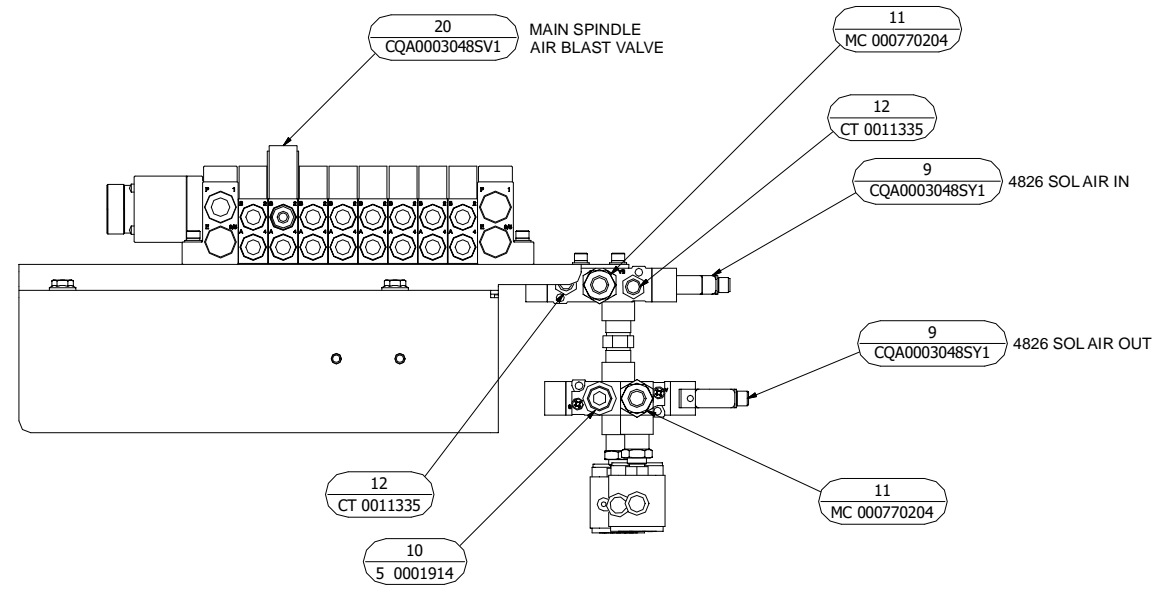
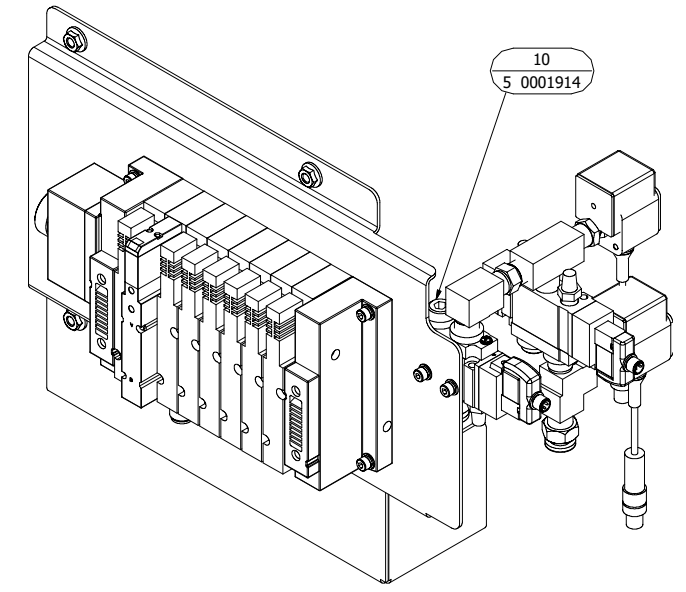
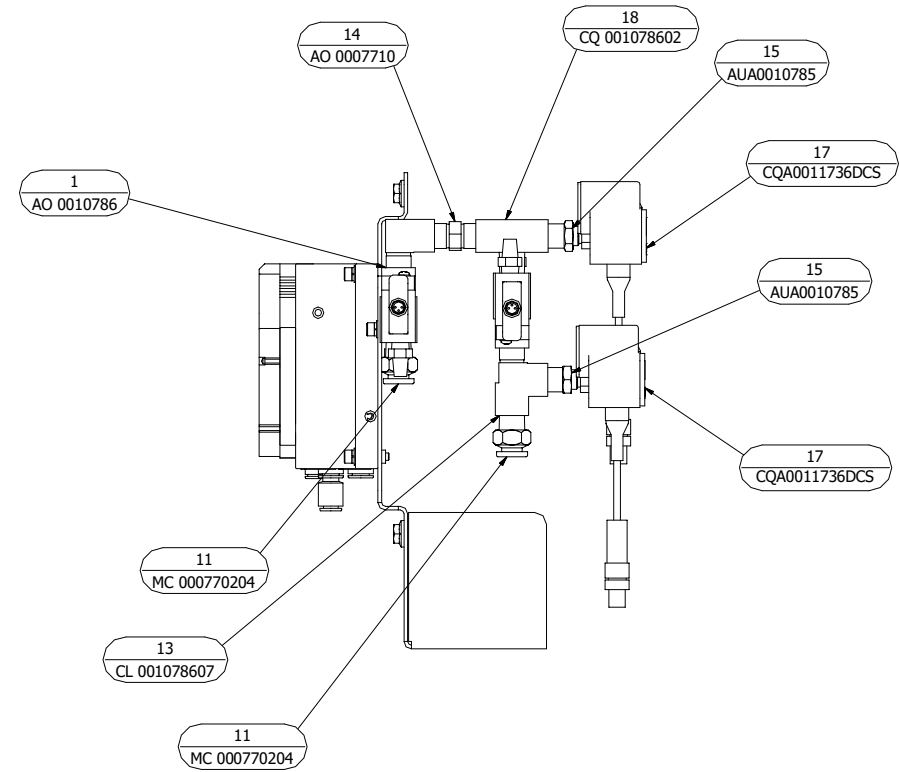
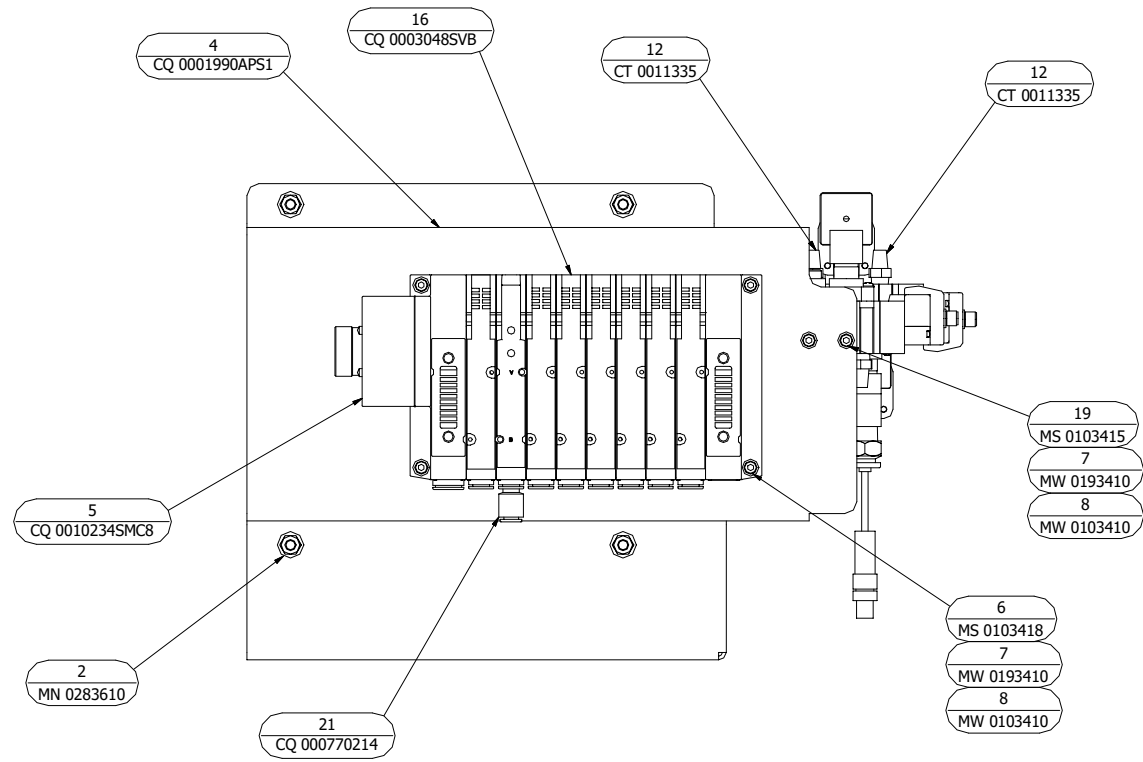


# Air Filter/Regulator Assembly

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0010234FR	1	MANIFOLD, AIR JUNCTION
2	5 0001914	3	PLUG, 1/4 PIPE
3	MC 000770204	2	CONNECTOR, STRAIGHT 1/4NPT-3/8 TUBE
4	CQ 0011092	1	NIPPLE, 1/4NPT BRASS CLOSE
5	HG 0007702	1	CONNECTOR, MALE 1/8 STRAIGHT
7	NC 0010786	2	ELBOW, 90 DEGREE 1/8 NPT STREET
8	KH 000350401	1	NIPPLE, 1/8 HEX BRASS
9	CQ 001077901	1	REGULATOR, 1/8 NPT AIR
10	CQ 0011537	1	GAUGE, 30 PSI
11	CQ 0011736SMC	1	SWITCH, PRESSURE
12	MC 0007011	144"	TUBING, 3/8 OD
13	HG 0007007	84"	TUBING, 5/16 OD
15	FR 000770203	1	CONNECTOR, 90 DEGREE
17	SR 0007007GR	276"	TUBING, 1/4 OD
30	QC 0011350SMC1	1	FILTER ELEMENT, SMC AW30
31	QC 0011350SMC2	1	FILTER ELEMENT, SMC AFD30
32	CQ 0010779FR	1	FILTER REGULATOR
33	CQ 0010779CF	1	FILTER ASSEMBLY
34	CQ 0010779FBN	1	BRACKET, FILTER
35	5 0001467	2	PLUG, 1/8 NPT
36	AO 0010786	1	ELBOW, STREET

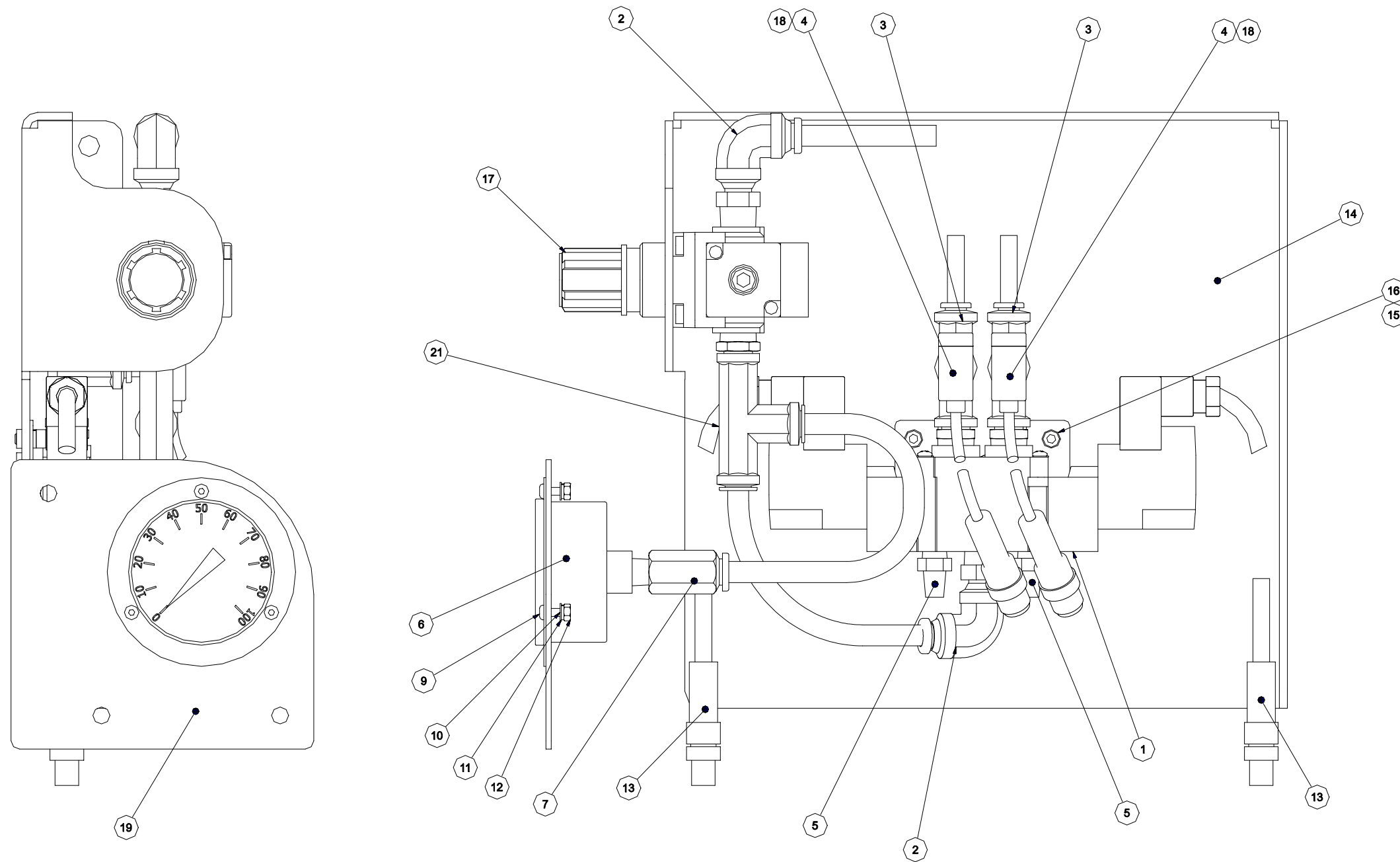


AIR FILTER/REGULATOR ASSEMBLY  
CQA0010779 A



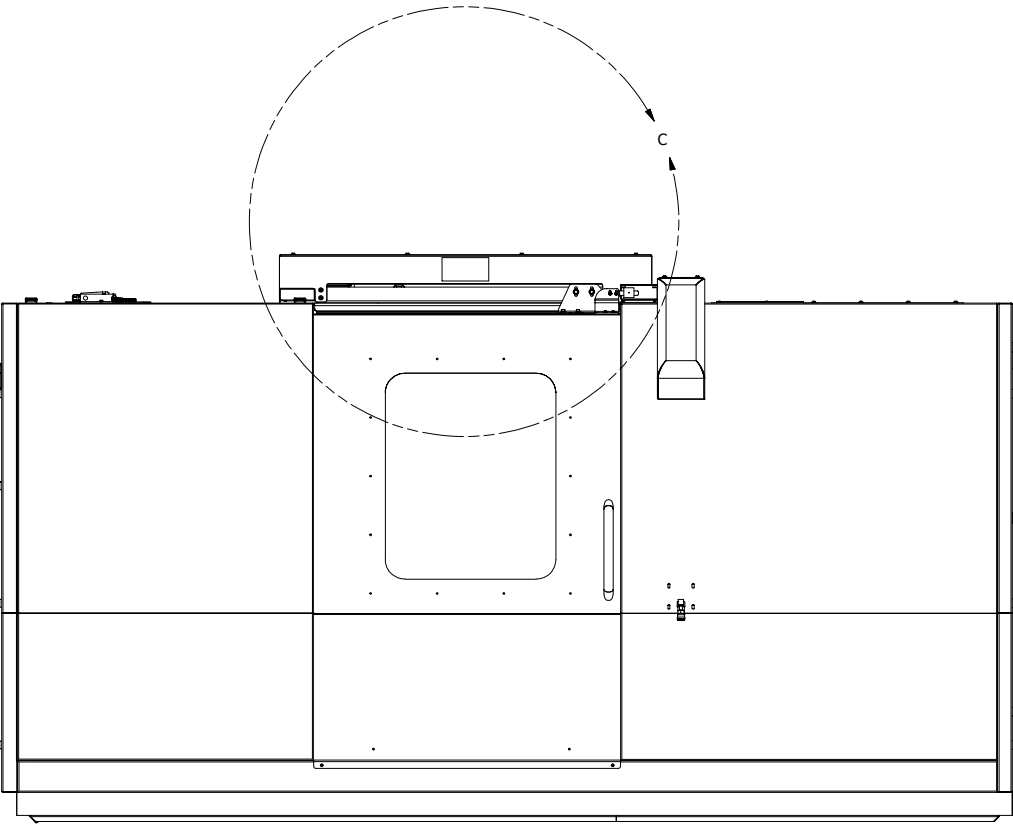
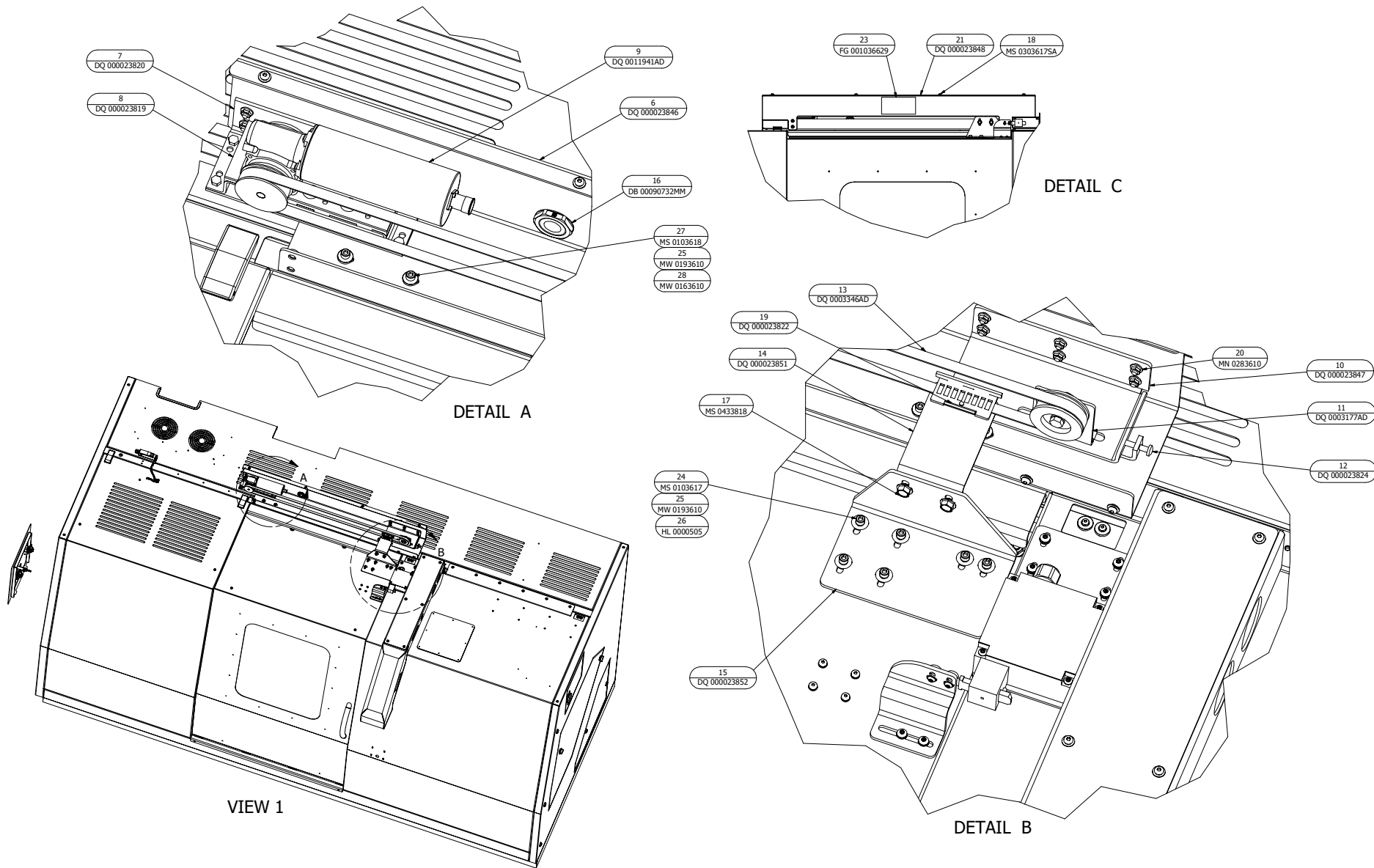
AIR PANEL, MAIN  
DQ 0002915

ITEM	PART NUMBER	QTY	DESCRIPTION
1	AO 0010786	1	ELBOW, STREET
2	MN 0283610	4	NUT, SERRATED HEX FLANGE, M6X1
3	LT 0010884 S	.25	SEALANT, PIPE
4	CQ 0001990APS1	1	PLATE, VALVE
5	CQ 0010234SMC8	1	MANIFOLD, 8 STATION
6	MS 0103418	4	SCREW, SHC, M4X0.7X20MM
7	MW 0193410	6	WASHER, LOCK, M4
8	MW 0103410	6	WASHER, FLAT, M4
9	CQA0003048SY1	2	VALVE, SINGLE SOLENOID AIR
10	5 0001914	2	PLUG, 1/4 PIPE
11	MC 000770204	2	CONNECTOR, STR 1/4NPT-3/8 TUBE
12	CT 0011335	4	MUFFLER, 1/8 NPT
13	CL 001078607	1	TEE, 1/4" NPT STREET
14	AO 0007710	1	NIPPLE, 1/4" NPT HEX
15	AUA0010785	2	BUSHING, 1/4" M X 1/8" F HEX
16	CQ 0003048SVB	7	COVER, BLANKING
17	CQA0011736DCS	2	SWITCH, PRESSURE
18	CQ 001078602	1	TEE, 1/4" NPT BRANCH
19	MS 0103415	2	SCREW, SHC, M4X0.7X10MM
20	CQA0003048SV1	1	VALVE, SV2A00 AIR
21	CQ 000770214	1	REDUCER, ONE TOUCH 5/16-1/4

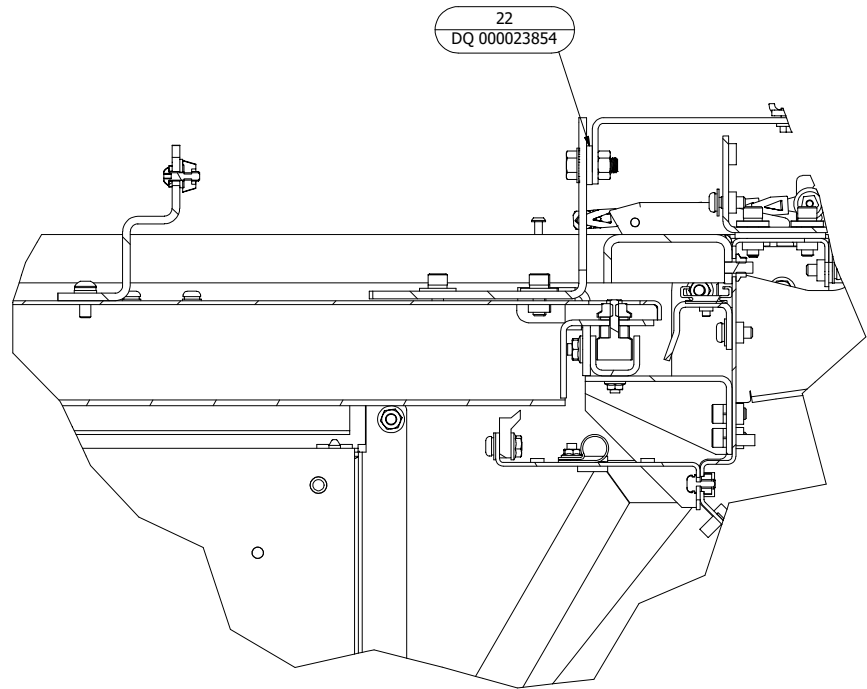


AIR PANEL, SUBSPINDLE COLLET CLOSER  
DQA0002915SCC

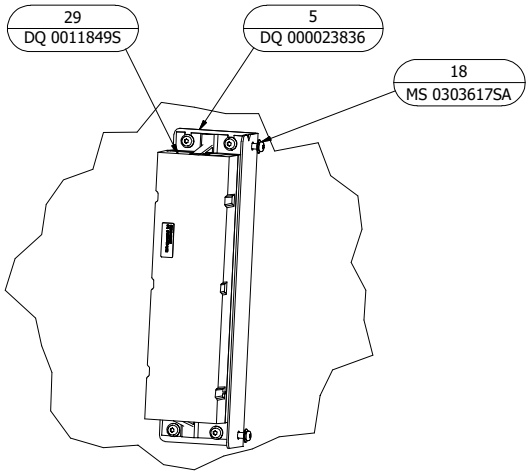
ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0003048SMC	1	VALVE, 4 WAY
2	VL 000770216	2	ELBOW 1/4 NPT-5/16 TUBE
3	CQ 000770204	2	RUN TEE, 1/4 NPT X 1/4 TUBE X 1/4 TUBE
4	CQ 0011736SMC	2	SWITCH, PRESSURE
5	CT 0011335	2	MUFFLER, 1/8 NPT
6	CQ 0011537CC	1	GAUGE, 0-100 PSI
7	DQ 000770203	1	CONN, FEMALE 1/8 NPT TO 5/16 TUBE
8	HS 000700747	240"	TUBING, 1/4 OD
9	MS 0303315SS	3	SCREW, B HD. M3X.5X10MM SSTE
10	MW 0103310SS	3	WASHER, FLAT REGULAR M3X.5 S
11	MW 0193310	3	WASHER, LOCK, M3
12	MN 0113310	3	NUT, HEX, M3X0.5
13	TT 0003011VC03	2	CABLE ASSEMBLY, 0.3 METER
14	CQ 0001990SSVP	1	PLATE, VALVE
15	MW 0193410	2	WASHER, LOCK, M4
16	MS 0103414	2	SCREW, SHC, M4X0.7X8MM
17	CQA0010779WIL	1	REGULATOR, AIR
18	CQ 0012042PS	2	CONNECTOR, M12
19	CQ 0000221GPLT	1	COVER, GAGE
20	HG 0007007	135"	TUBING, 5/16 OD
21	VL 000770222	1	RUN TEE, 1/4 NPT X 5/16 TUBE



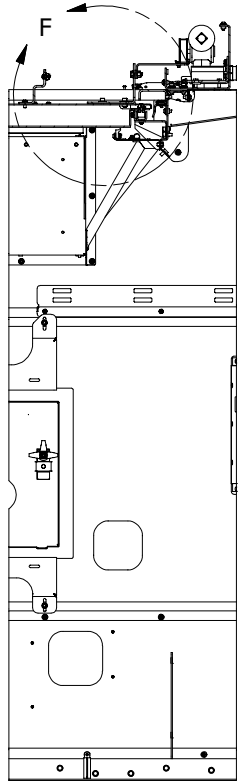
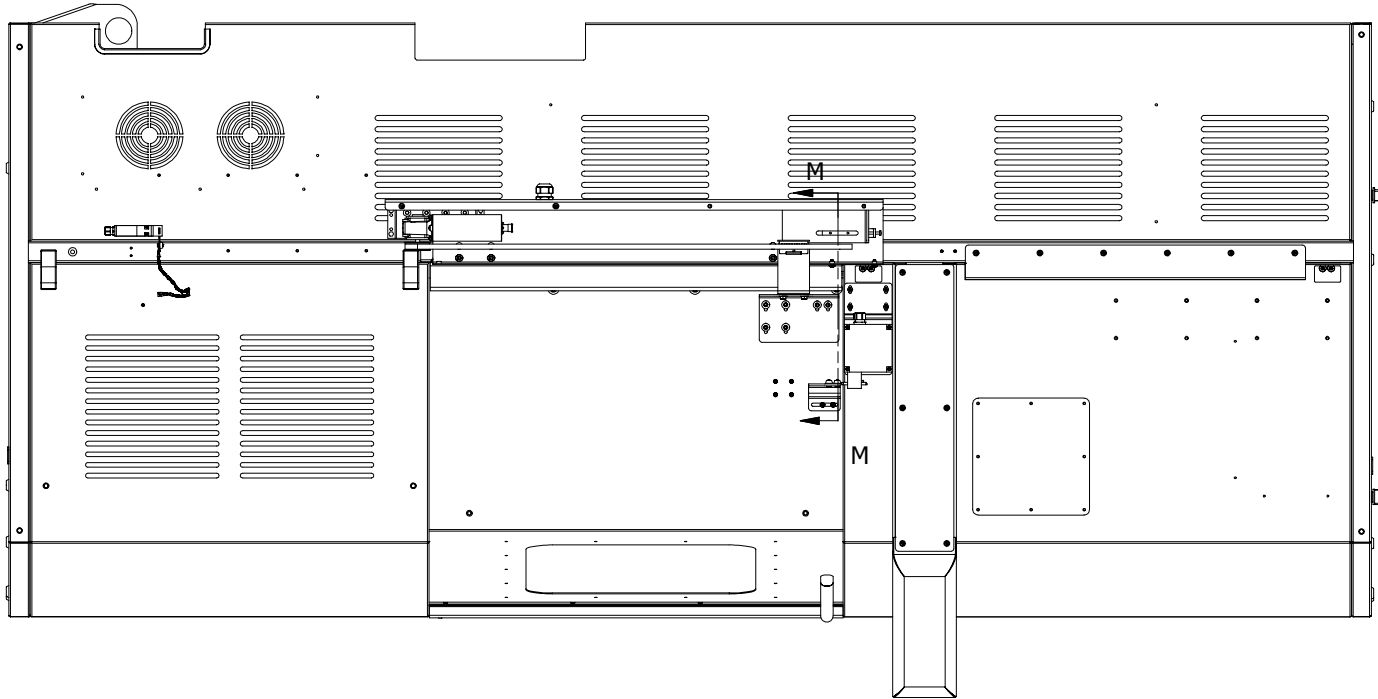
AUTOMATIC GUARD DOOR (SIEMENS)  
PART NUMBER: DQ 0000238ADS  
DRAWING NUMBER: LO 0005258SI



DETAIL F



DETAIL SIDOOR CONTROL UNIT

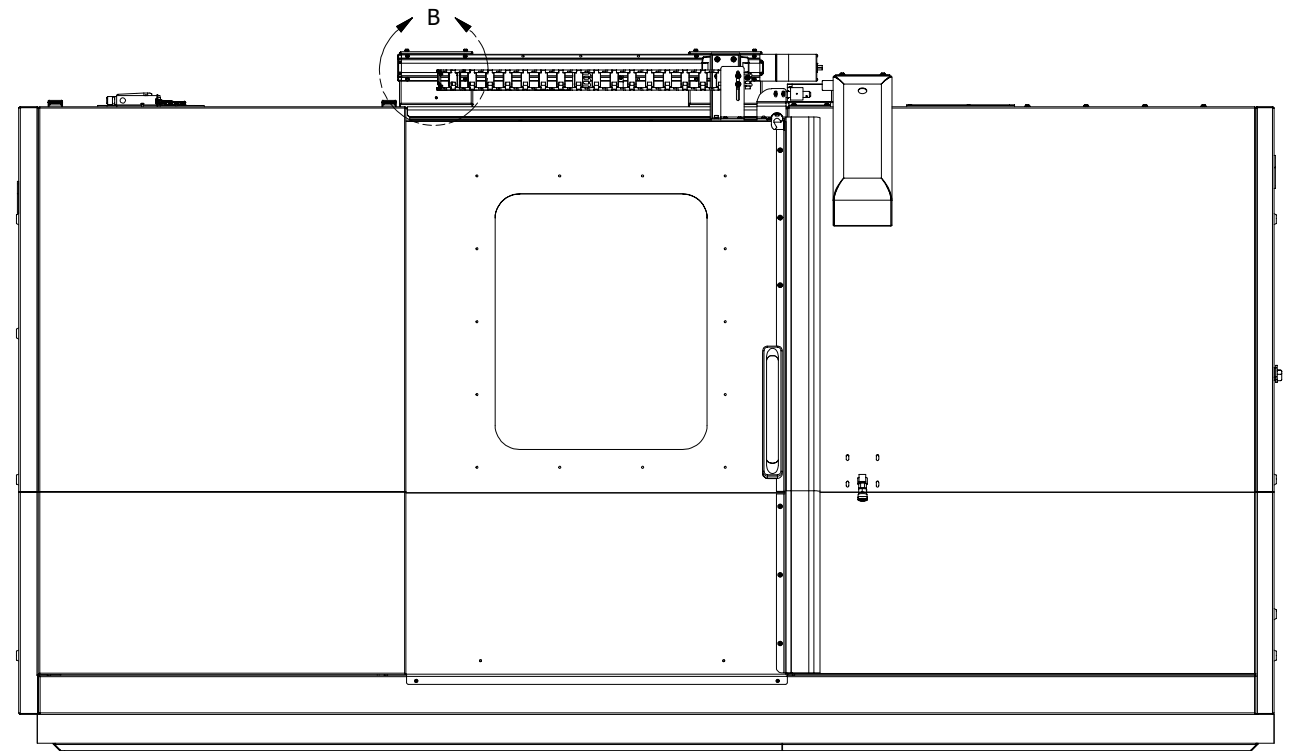
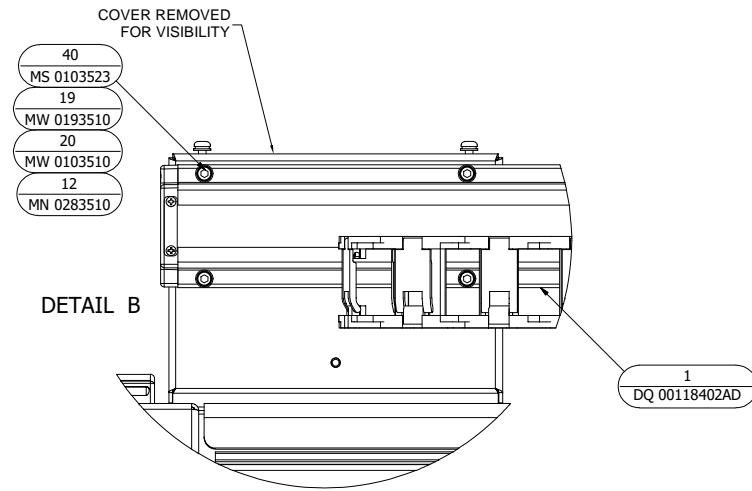
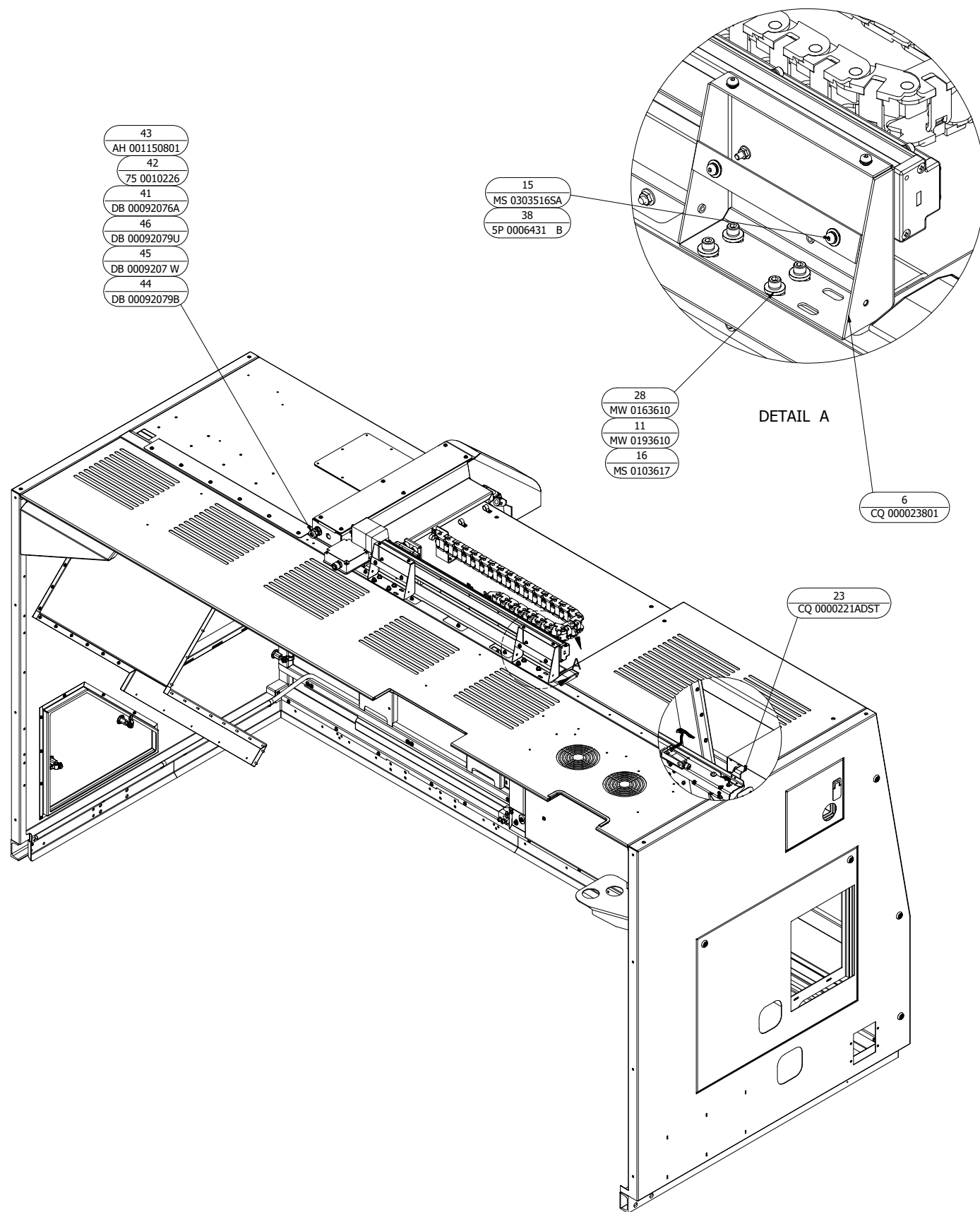


SECTION M-M

AUTOMATIC GUARD DOOR (SIEMENS)  
PART NUMBER: DQ 0000238ADS  
DRAWING NUMBER: LO 0005258SI

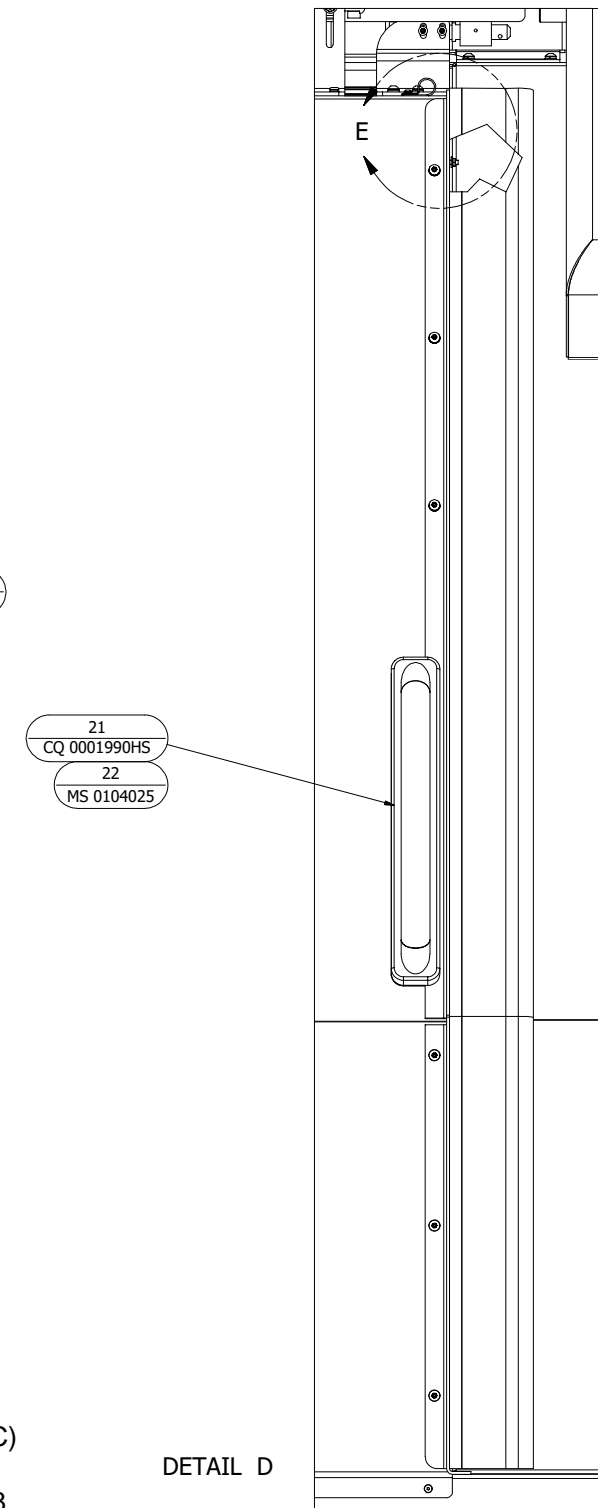
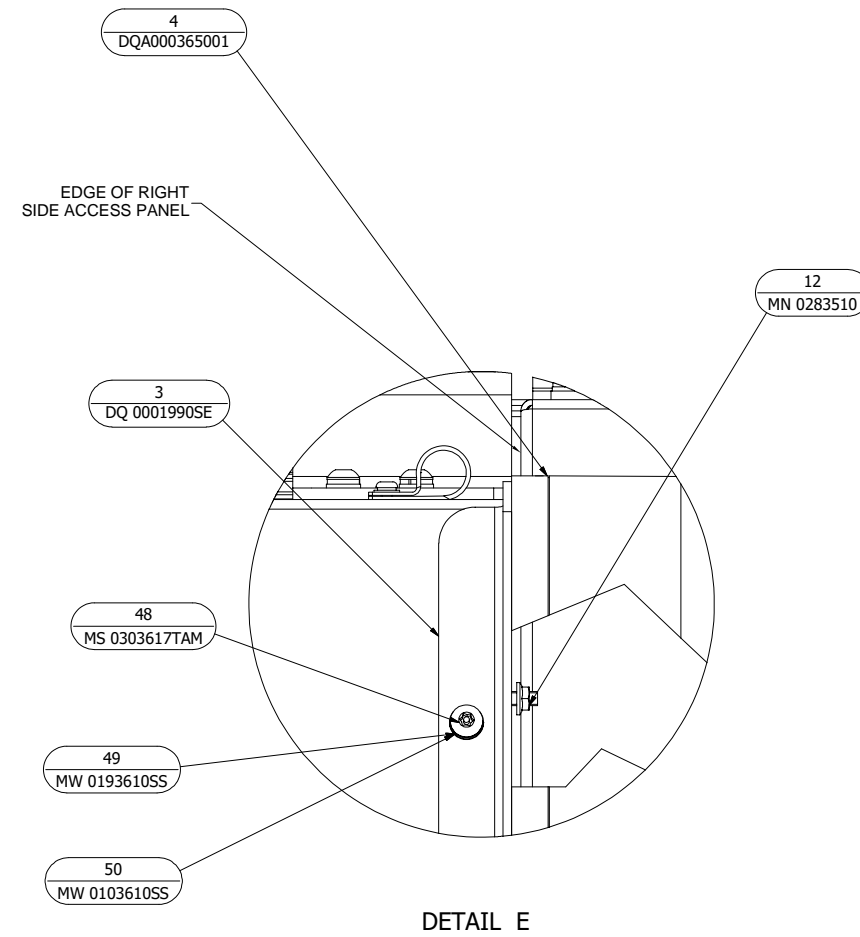
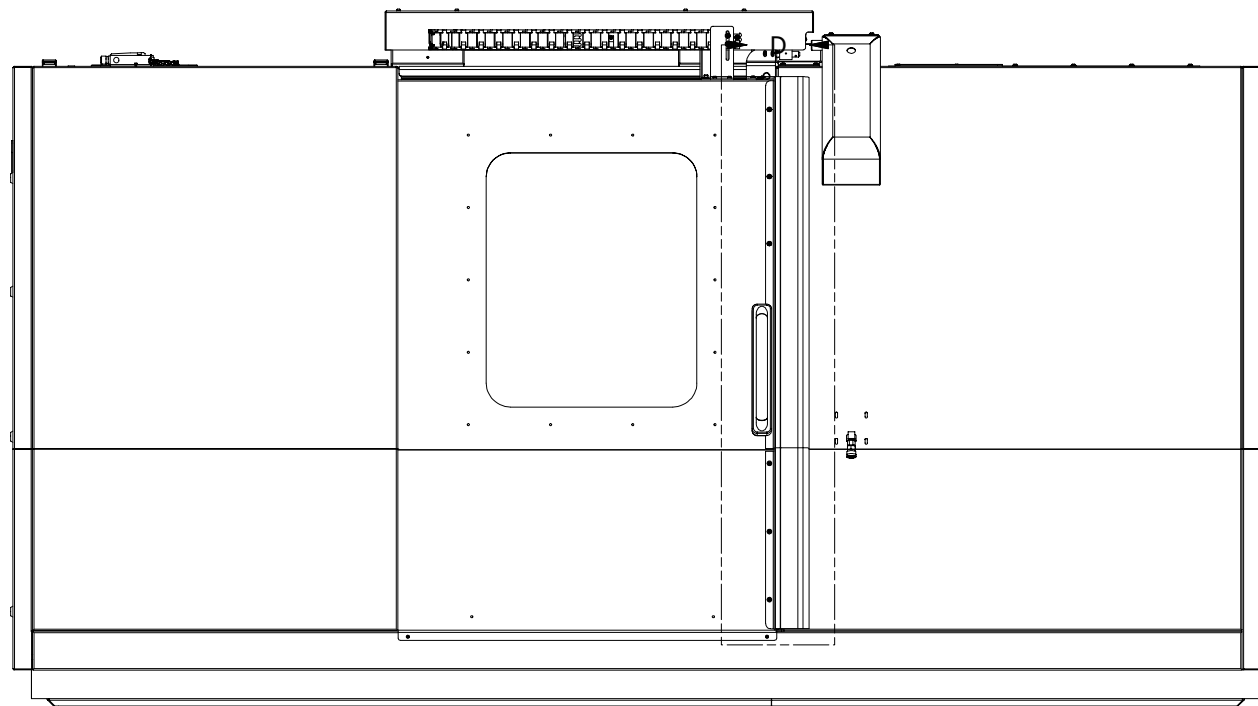
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1	CO 000812204	2	RELAY, SAFETY, 2NO/2NC
2	SG 000961001	1	FUSE 5A CLASS CC
3	CK 0008104	12	TIE, CABLE
4	AH 0009910	12	TIE, CABLE
5	DQ 000023836	1	BRACKET, SIEMENS MOUNTING
6	DQ 000023846	1	BRACKET, SERVO MOUNTING
7	DQ 000023820	1	MOUNTING BRACKET
8	DQ 000023819	1	SIDOOR ANTI-VIBRATION MOUNT
9	DQ 0011941AD	1	MOTOR, SIDOOR MDG180 R
10	DQ 000023847	1	BRACKET, PULLEY ADJUSTER
11	DQ 0003177AD	1	DEFLECTOR UNIT WITH PULLEY
12	DQ 000023824	1	TENSIONING DEVICE
13	DQ 0003346AD	1	SIDOOR TOOTHED BELT 12MM X 4M
14	DQ 000023851	1	BRACKET, DISCONNECT
15	DQ 000023852	1	BRACKET, DOOR
16	DB 00090732MM	2	CORD GRIP
17	MS 0433818	2	BOLT, SERRATED FLANGE 8MM x 1.25 X 20
18	MS 0303617SA	14	SCREW ASSEMBLY, M6X1X16MM
19	DQ 000023822	1	DOOR CLUTCH HOLDER 12MM
20	MN 0283610	12	NUT, SERRATED HEX FLANGE, M6X1
21	DQ 000023848	1	COVER, AUTO DOOR
22	DQ 000023854	1	SPACER, DISCONNECT
23	FG 001036629	1	TAG, WARNING, CRUSH, REACHING IN
24	MS 0103617	6	SCREW, SHC, M6X1X16MM
25	MW 0193610	14	WASHER, LOCK M6
26	HL 0000505	6	WASHER
27	MS 0103618	8	SCREW, SHC M6X1X20MM
28	MW 0163610	8	WASHER, M6 HEAVY
29	DQ 0011849S	1	SIDOOR CONTROL UNIT ATD401W
31	DQ 00030101760	1	CABLE, 7410CBL
32	DQ 00030101770	1	CABLE, 7415CBL
33	DQ 00030101780	1	CABLE, 7402CBL
34	DQ 00030101790	1	CABLE TAGS, 7403CBL
35	DQ 0003010ADS	1	IDOOR CABLE-MDG-5M





AUTOMATIC GUARD DOOR (SMC)  
 PART NUMBER: DQA0000238AD  
 DRAWING NUMBER: LOA0005258

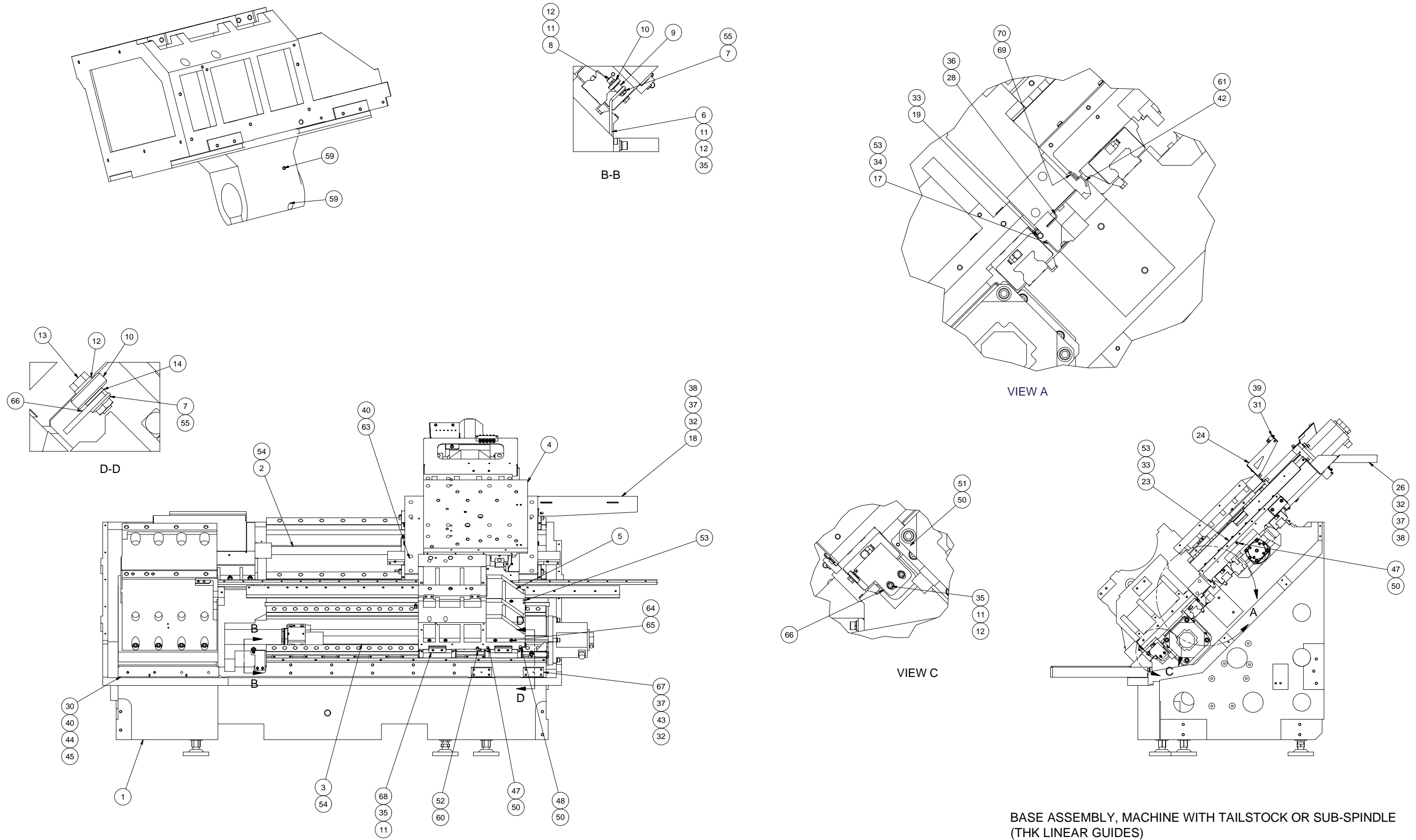




AUTOMATIC GUARD DOOR (SMC)  
PART NUMBER: DQA0000238AD  
DRAWING NUMBER: LOA0005258

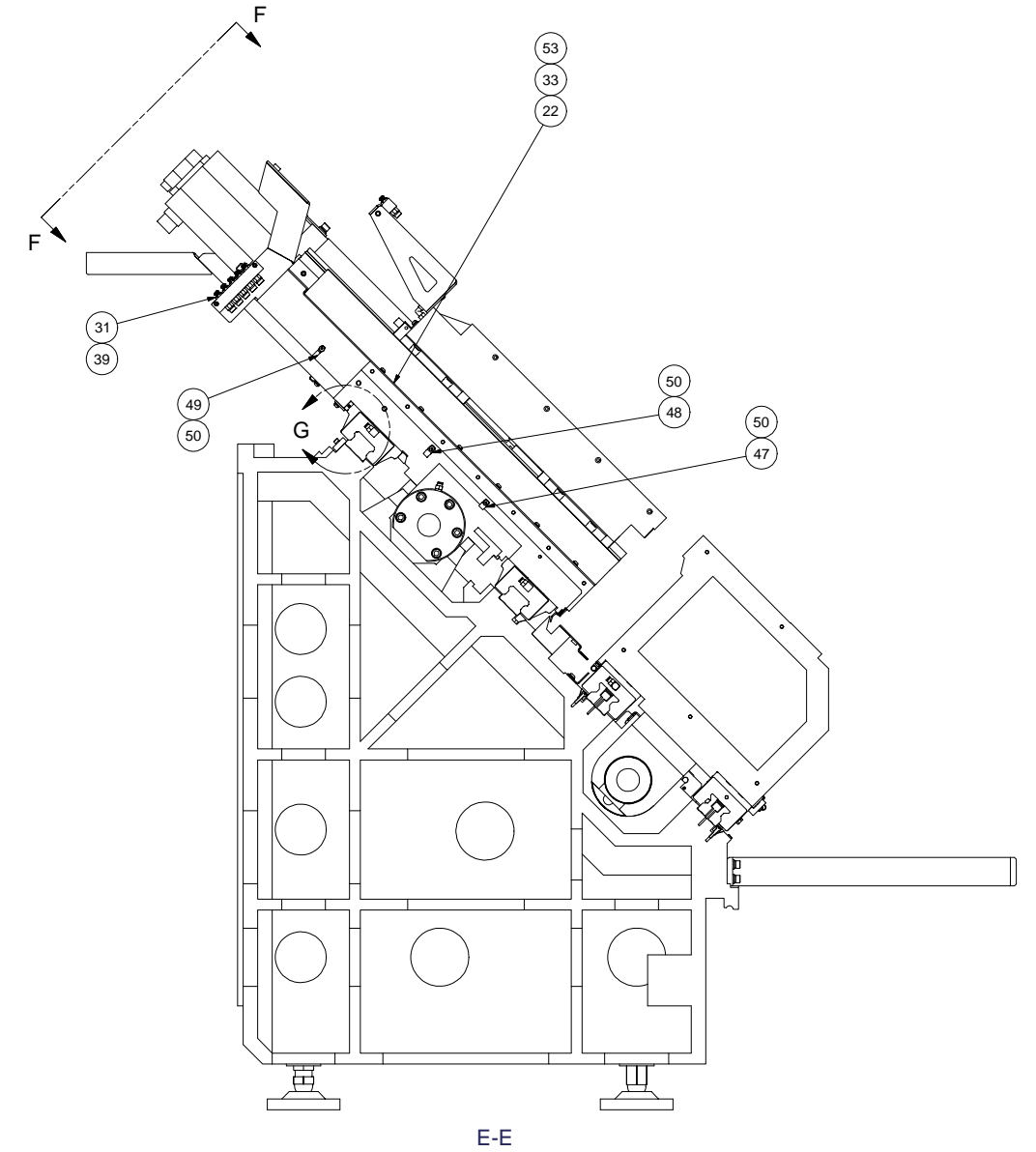
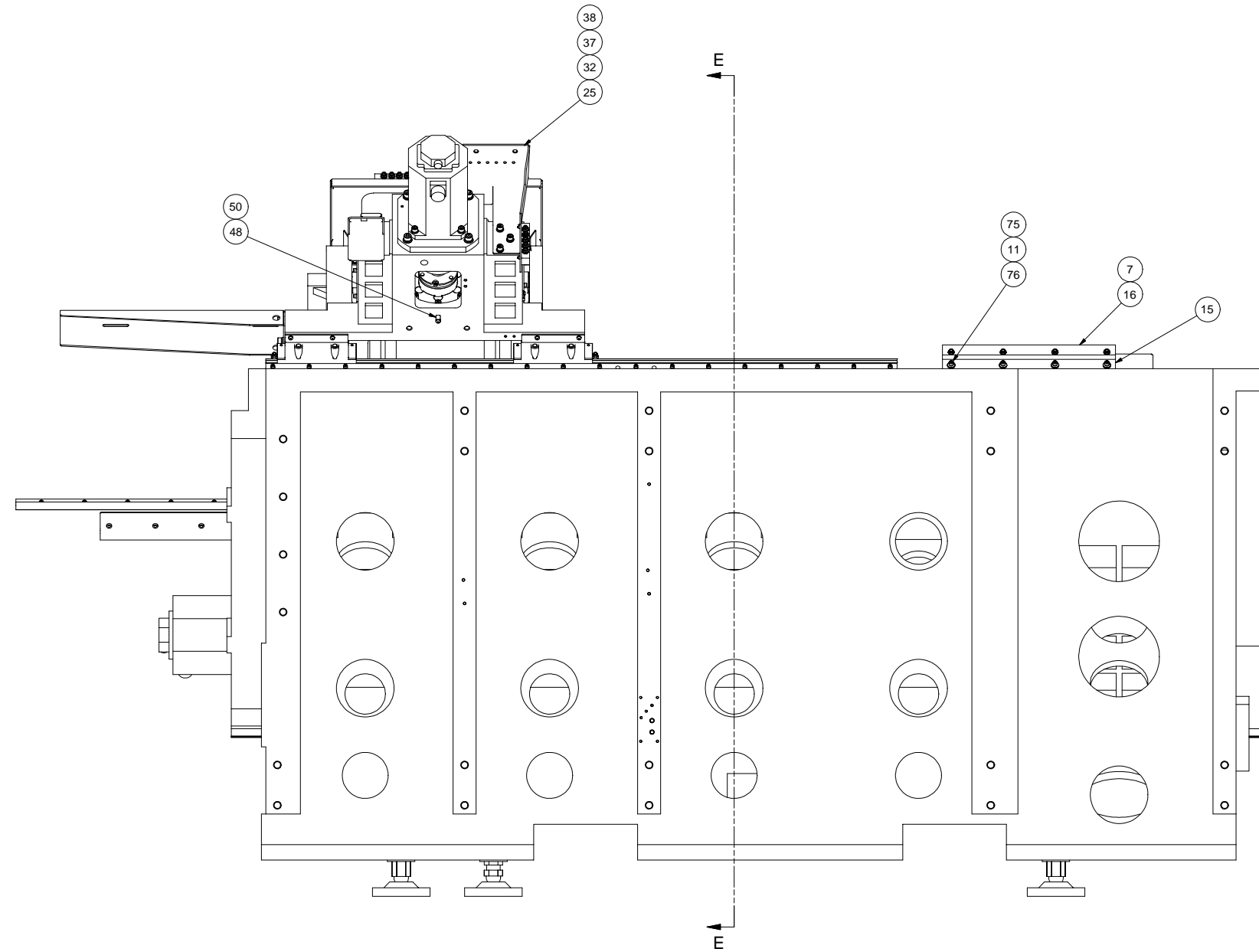
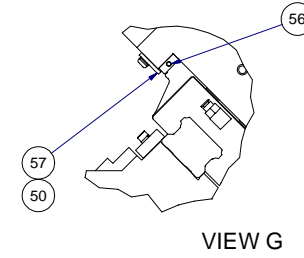
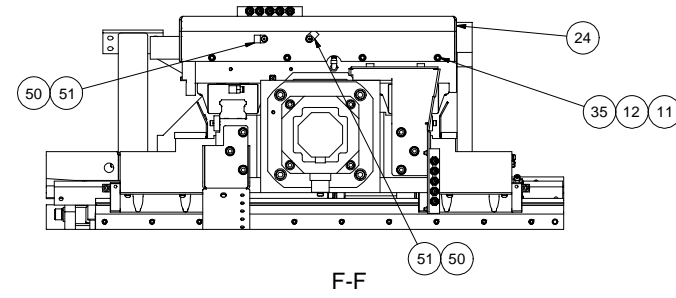
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 00118402AD	1	ELECTRIC ACTUATOR, 800MM	43	AH 001150801	1	LOCKNUT, .75 INCH
2	DQ 000023809	1	DOOR BRACKET, AUTO DOOR	44	DB 00092079B	1	NUT, COMPRESSION, F2
3	DQ 0001990SE	1	BRACKET, SENSITIVE EDGE	45	DB 0009207 W	1	WASHER, CONNECTOR
4	DQA000365001	1	EDGE, SENSING	46	DB 00092079U	1	GROMMET, F2, .437-.562
5	DQA000023813	1	COVER, AUTO DOOR	48	MS 0303617TAM	6	SCREW, M6X1X16 BH TAM-6LOBE
6	CQ 000023801	2	BRACKET, ELECTRIC ACTUATOR	49	MW 0193610SS	6	WASHER, M6X1.0 -STAINLESS STEEL
7	CQ 0001990CT	1	BRACKET, CABLE CARRIER	50	MW 0103610SS	6	WASHER, FLAT M6 STAINLESS STEEL
8	CQ 0003325ISOL	4	ISOLATOR, M6	51	DQ 0009207SC	1	CONNECTOR, CONDUIT
9	DQ 0011623AD	1	CABLE CARRIER	52	MS 0303616	1	SCREW, BTHD M6X1X12MM
10	DQ 000962305	6	CLAMP, HOSE	53	DQ 0011508	1	NUT, LOCK
11	MW 0193610	12	WASHER, LOCK, M6	54	HL 0000505	4	WASHER
12	MN 0283510	17	NUT, SERRATED HEX FLANGE, M5X0.8	55	DQ 0010229	93"	CONDUIT, FLEXIBLE
13	MS 0303617SA	2	SCREW ASSEMBLY, M6X1X16MM	56	DQ 0009207K63	1	CONNECTOR, 90 DEGREE ELBOW
14	MN 0283610	7	NUT, SERRATED HEX FLANGE, M6X1				
15	MS 0303516SA	12	SCREW ASSEMBLY, BH M5X.8X12				
16	MS 0103617	12	SCREW, SHC, M6X1X16MM				
17	MS 0303616SA	2	SCREW ASSEMBLY, 6MX1X12MM				
18	MS 0303415SA	5	SCREW ASSEMBLY, M4X.7X10MM				
19	MW 0193510	8	WASHER, LOCK, M5				
20	MW 0103510	8	WASHER, FLAT, M5				
21	CQ 0001990HS	1	HANDLE SPACER				
22	MS 0104025	2	SCREW, SHC, M10X1.5X55MM				
23	CQ 0000221ADST	1	STOP, DOOR UPPER				
24	CQ 0003650OPT	2	OPTICAL BUTTON				
25	CN 0010116 B	2	GASKET E STOP SWITCH				
26	CQ 00081222HC	1	SAFETY RELAY, 2 HAND CONTROL				
27	ML 0011032ES	2	END STOPS				
28	MW 0163610	8	WASHER, M6 HEAVY				
29	CK 000918822IA	12	FERRULE, 22 AWG, 0.5-8, WHITE				
30	CQ 000812204	2	RELAY, FG SAFETY, 2NO/2NC				
31	SG 000961001	1	FUSE 5A CLASS CC				
32	CK 0008104	12	TIE, CABLE				
33	AH 0009910	12	TIE, CABLE				
34	SR 0008122SR	1	SAFETY RELAY, SENSING EDGE				
37	MW 0103610	4	WASHER, FLAT, M6				
38	5P 0006431 B	4	WASHER				
39	NC 0010884	0.01	THREADLOCKER, LOCTITE 242				
40	MS 0103523	8	SCREW, SHC, M5X0.8X45MM				
41	DB 00092076A	1	BODY, CORD GRIP, F2, 3/4"				
42	75 0010226	1	SEAL, .75 INCH				

**Base Assembly, Machine with Tailstock or Sub-Spindle  
(THK Linear Guides)**

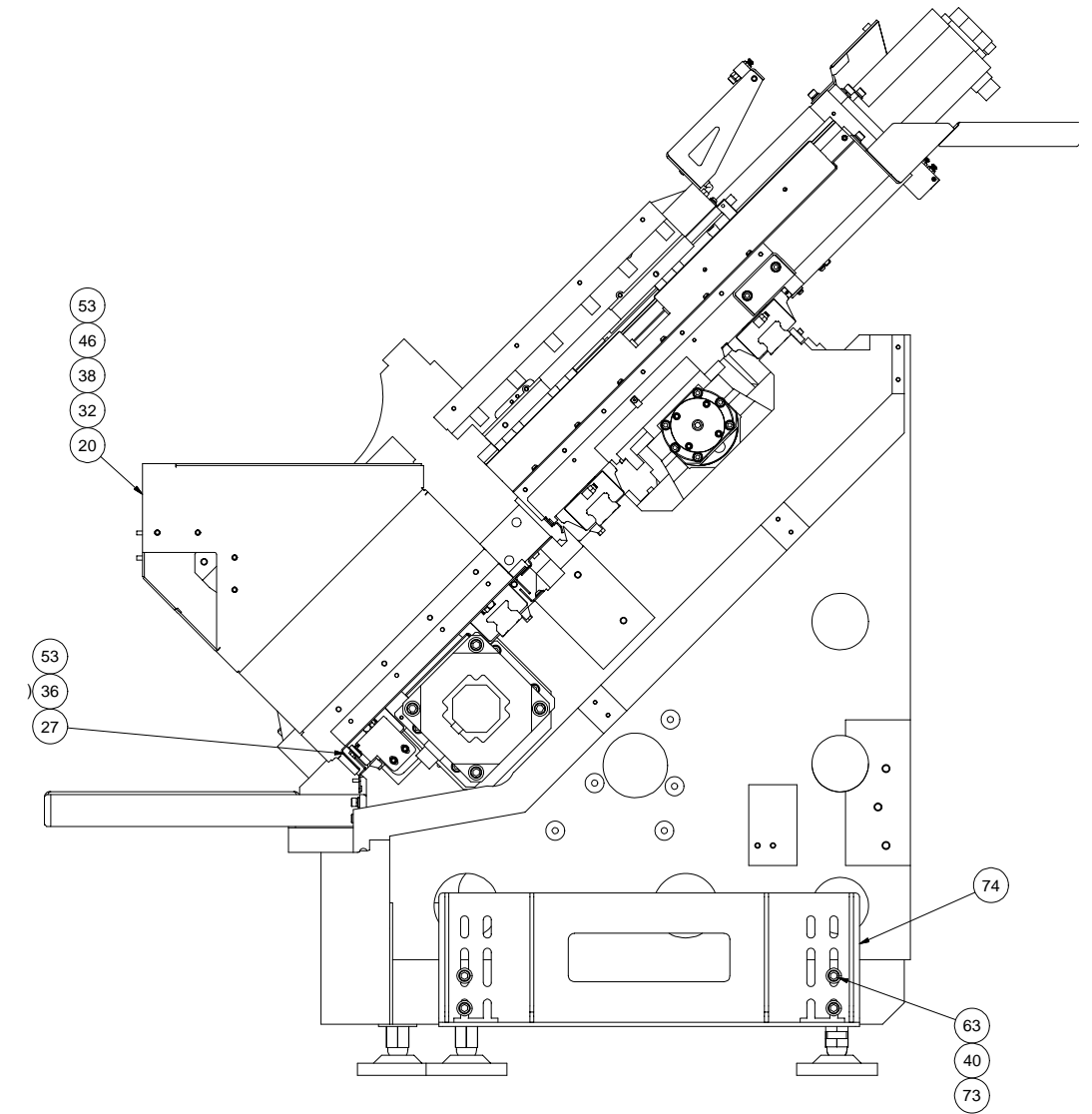
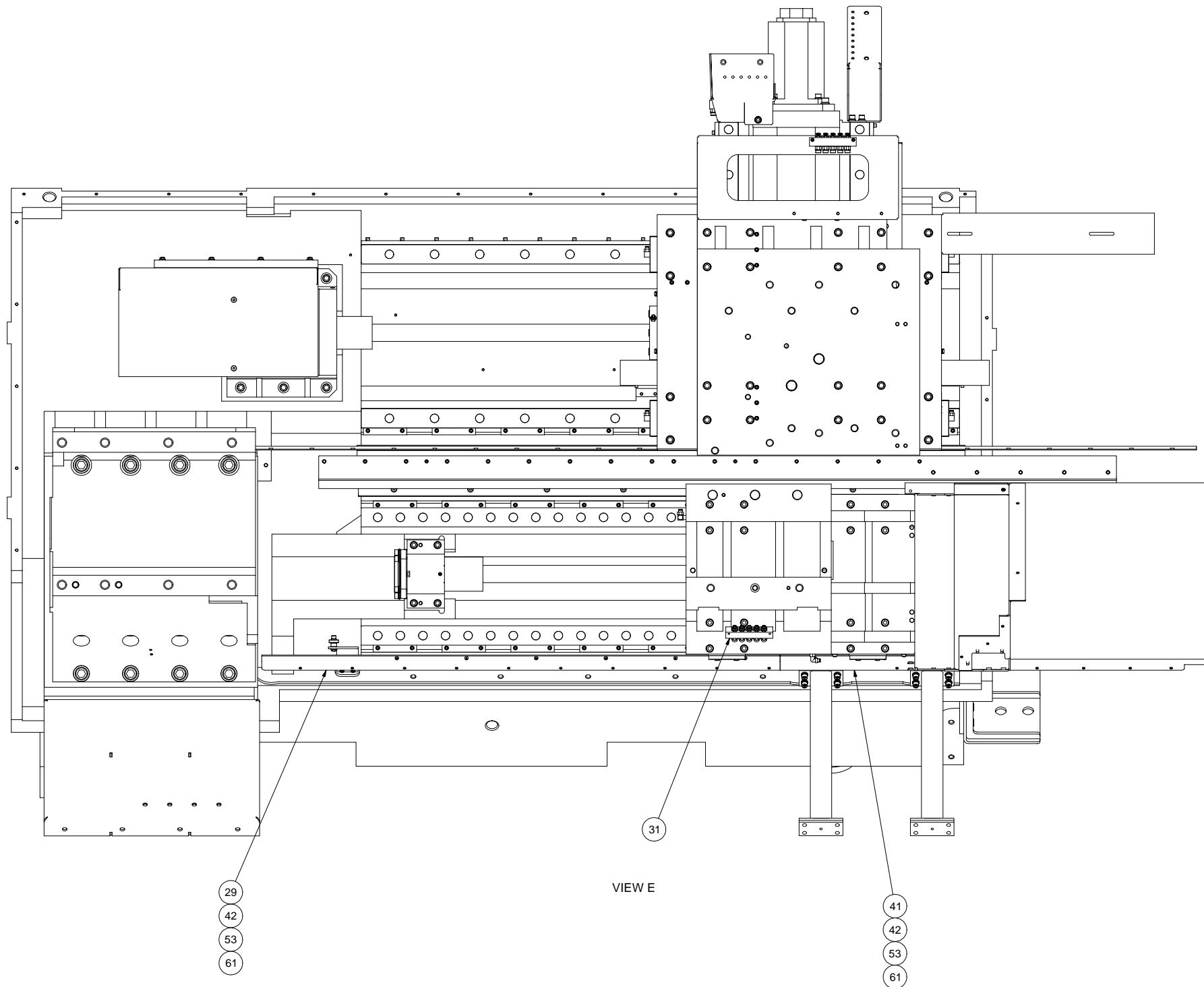


BASE ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQA0000001HTLA

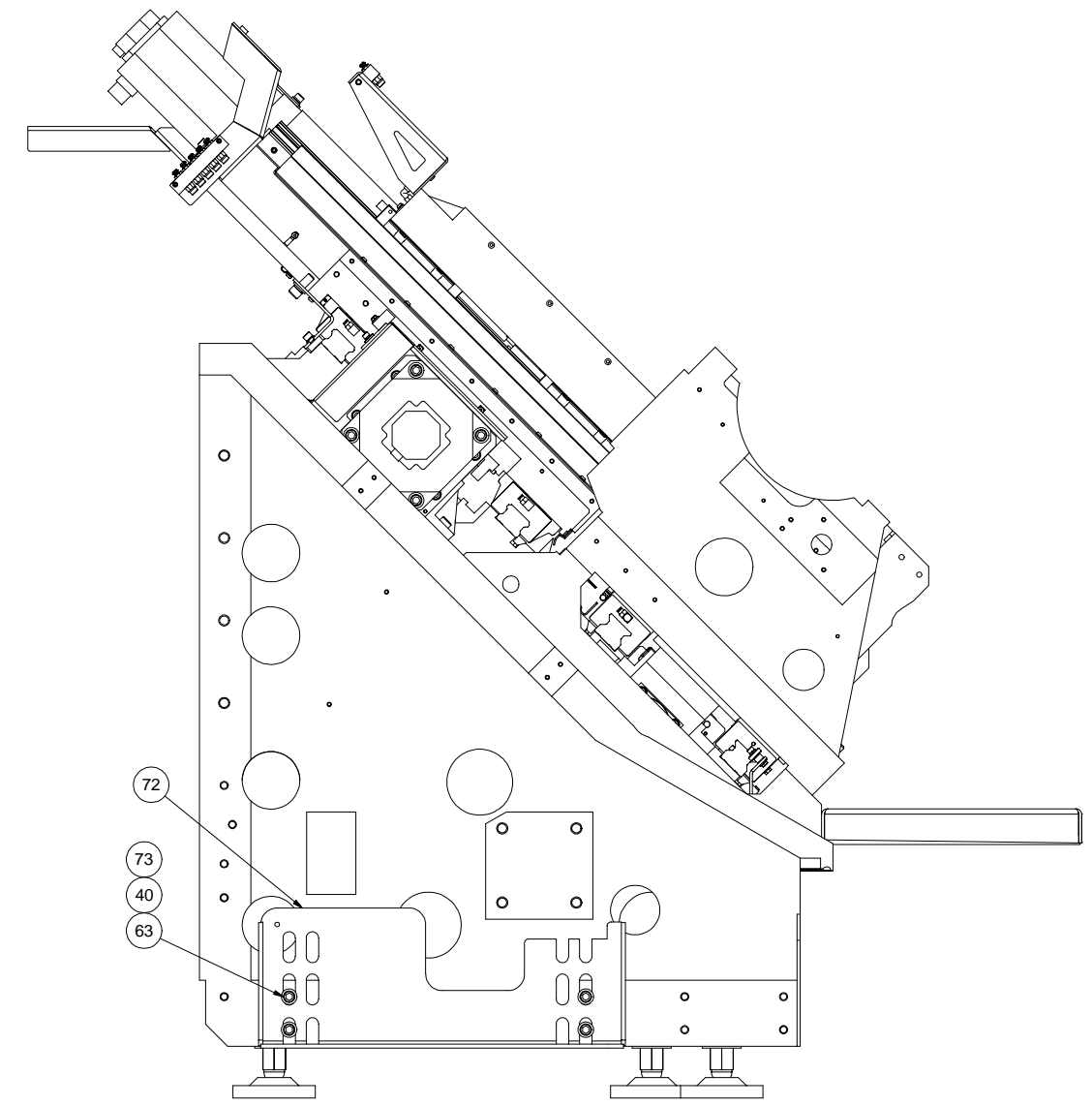
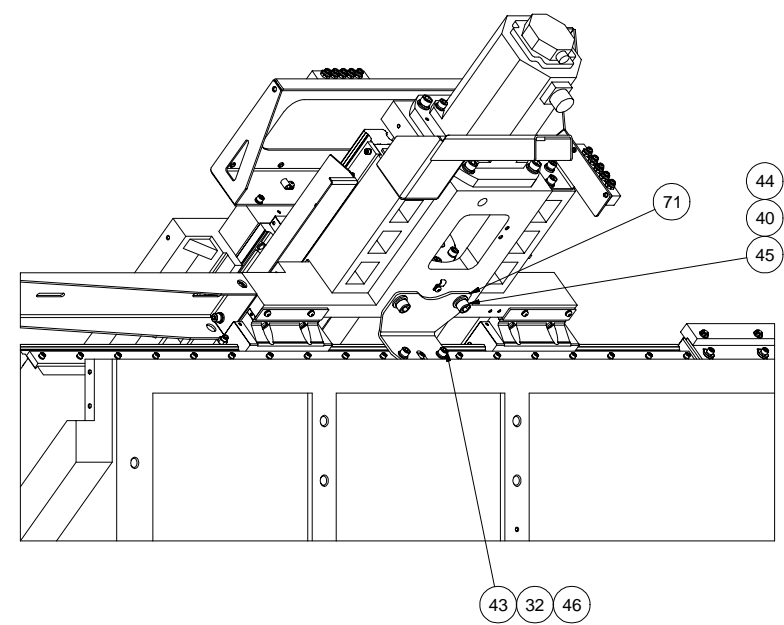
**Base Assembly, Machine with Tailstock or Sub-Spindle  
(THK Linear Guides)**



**BASE ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQA000001HTLA**



BASE ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQA000001HTLA



BASE ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQA0000001HTLA

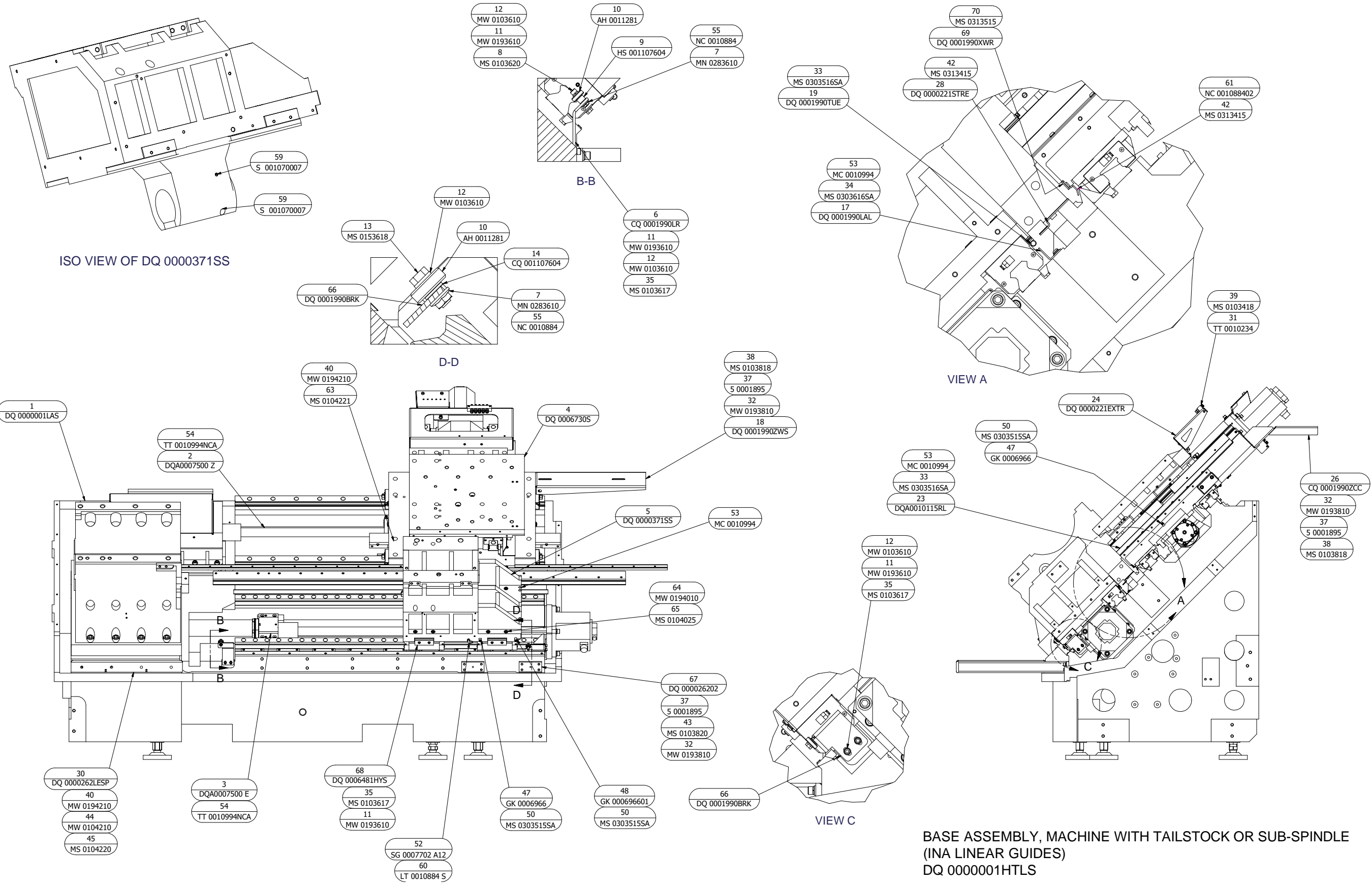


**Base Assembly, Machine with Tailstock or Sub-Spindle  
(THK Linear Guides)**

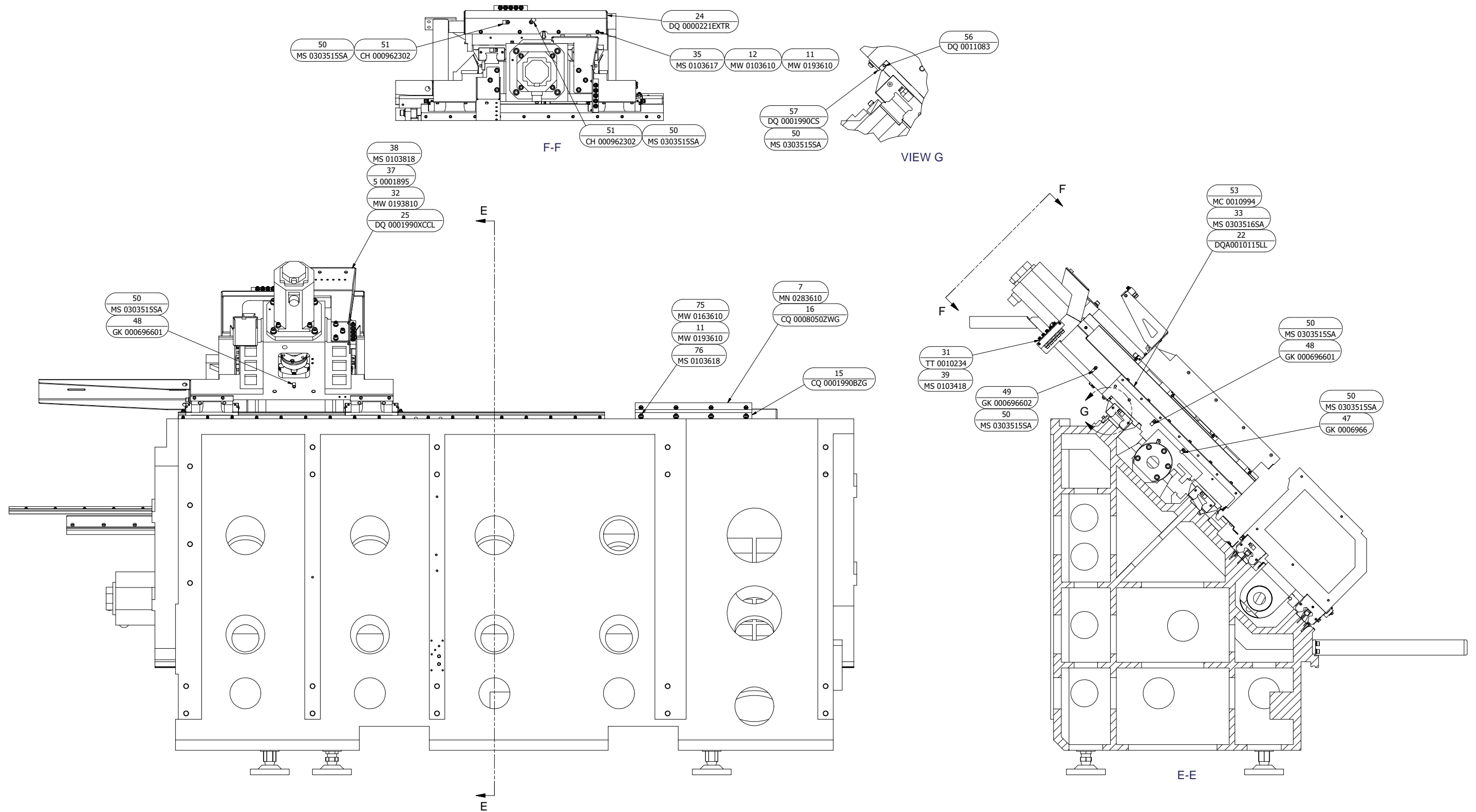
ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000001LA	1	BASE ASSEMBLY
2	DQA0007500 Z	1	Z-AXIS SUB-ASSEMBLY
3	DQA0007500 E	1	E-AXIS SUB-ASSEMBLY
4	DQ 0006730	1	CARRIAGE AND CROSS SLIDE ASSEMBLY
5	DQ 0000371SS	1	BASE, SUB SPINDLE
6	CQ 0001990LR	1	BRACKET, LOWER ROLLER
7	MN 0283610	6	NUT, SERRATED HEX FLANGE, M6X1
8	MS 0103620	1	SCREW, SHC, M6X1X30MM
9	HS 001107604	1	BUSHING, MAIN GUARD DOOR
10	AH 0011281	2	ROLLER BEARING
11	MW 0193610	17	WASHER, LOCK, M6
12	MW 0103610	10	WASHER, FLAT, M6
13	MS 0153618	1	SCREW, HEX HD M6X1.0X20
14	CQ 001107604	1	BUSHING, ROLLER
15	CQ 0001990BZG	1	BRACKET, Z WAYCOVER GUIDE
16	CQ 0008050ZWG	1	GUIDE, Z WAYCOVER
17	DQ 0001990LAL	1	LABYRINTH, LOWER AXIS
18	DQ 0001990ZWS	1	BRACKET, Z WAYCOVER SUPPORT
19	DQ 0001990TUE	1	TUBE, E-AXIS GREASE
20	DQ 0010115SS9	1	COVER, SUBSPINDLE REAR
21	DQ 0000221UCPW	1	SUPPORT, Z-AXIS WIPER
22	DQA0010115LL	1	LABYRINTH, X-AXIS LEFT
23	DQA0010115RL	1	LABYRINTH, X-AXIS RIGHT
24	DQ 0000221EXTR	1	STIFFENER, X-AXIS COVER
25	DQ 0001990XCCL	1	BRACKET, X CABLE CARRIER LOWER
26	CQ 0001990ZCC	1	BRACKET, Z CABLE CARRIER
27	DQ 0010115TSSR	1	WAYCOVER, LOWER AXIS REAR
28	DQ 0000221STRE	1	SUPPORT, LOWER WAYCOVER
29	DQ 0000221LWB	1	LABYRINTH, LOWER WAYCOVER
30	DQ 0000262LESP	1	MOUNT, FRAME
31	TT 0010234	3	MANIFOLD ASSEMBLY, LUBRICATION
32	MW 0193810	23	WASHER, LOCK, M8
33	MS 0303516SA	14	SCREW ASSEMBLY, BH M5X.8X12
34	MS 0303616SA	8	SCREW ASSEMBLY, 6MX1X12
35	MS 0103617	12	SCREW, SHC, M6X1X16
36	MS 0303617SA	4	SCREW ASSEMBLY, M6X1X16
37	5 0001895	17	WASHER
38	MS 0103818	13	SCREW, SHC, M8X1.25X20
39	MS 0103418	4	SCREW, SHC, M4X0.7X20
40	MW 0194210	30	WASHER, LOCK, M12

ITEM	PART NUMBER	QTY	DESCRIPTION
41	DQA0000221LWBR	1	LABYRINTH, LOWER WAYCOVER
42	MS 0313415	12	SCREW, FHCS, M4 X 0.7 X 10
43	MS 0103820	10	SCREW, SHC, M8X1.25X30
44	MW 0104210	6	WASHER, FLAT, M12
45	MS 0104220	6	SCREW, SHC, M12X1.75X30
46	MW 0103810	6	WASHER, FLAT, M8
47	GK 0006966	4	CLAMP, HOSE 4 MM SINGLE
48	GK 000696601	3	CLAMP, HOSE 4MM DOUBLE
49	GK 000696602	1	CLAMP, HOSE TRIPLE
50	MS 0303515SA	15	SCREW ASSEMBLY, BH M5X.8X10
51	CH 000962302	3	CABLE CLAMP, 5/16
52	SG 0007702 A12	1	ELBOW, MALE SWIVEL 4 MM X 1/8BS
53	MC 0010994	0.3	GREASE, SILICONE
54	TT 0010994NCA	0.5	GREASE, NCA 15
55	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
56	DQ 0011083	2	SHIM, T51 CARRIAGE
57	DQ 0001990CS	2	BRACKET, CARRIAGE SHIM
58	TT 0007007	168"	TUBING, PLASTIC
59	S 001070007	2	LEE PLUG 0.281
60	LT 0010884 S	0.2	SEALANT, PIPE
61	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
62	CS 0010994	0.1	GREASE
63	MS 0104221	24	SCREW, SHC, M12X1.75X35
64	MW 0194010	16	WASHER, LOCK, M10
65	MS 0104026	16	SCREW, SHC, M10X1.5X60
66	DQ 0001990BRK	1	BRACKET, WAY COVER
67	DQ 000026202	2	MOUNT, FRAME
68	DQ 0006481HYS	2	CLAMP, TRUCK
69	DQ 0001990XWR	1	RETAINER, X-AXIS WIPER
70	MS 0313515	5	SCREW, FHCS, M5 X 0.8 X 10
71	DQ 0000132TN	1	BRACKET, Z-AXIS SHIPPING
72	DQ 000013202	1	BRACKET, SHIPPING LEFT
73	MW 0104210 H	8	WASHER, FLAT, HARD, M12
74	CQ 0000132	1	BRACKET, SHIPPING-RIGHT
75	MW 0163610	4	WASHER, M6 HEAVY
76	MS 0103618	4	SCREW, SHC, M6X1X20

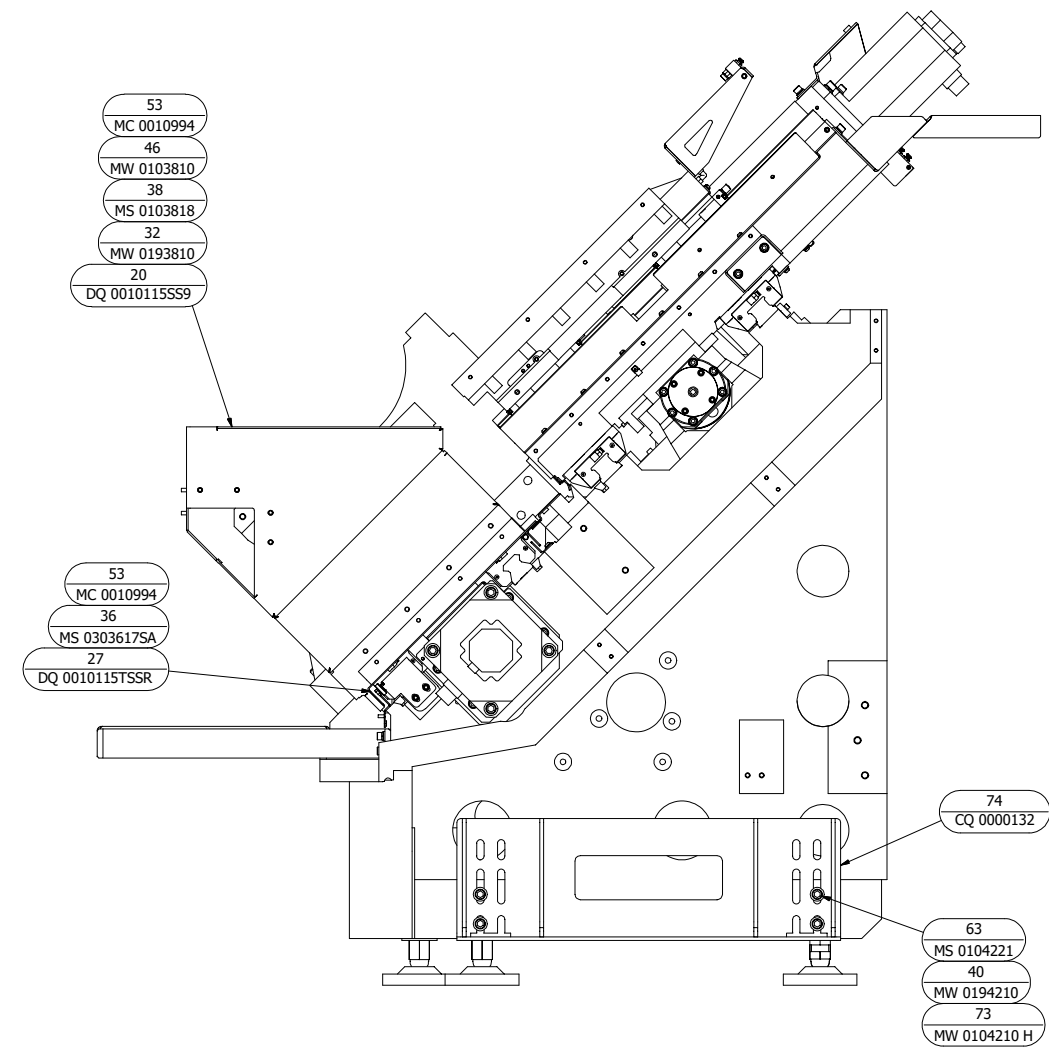
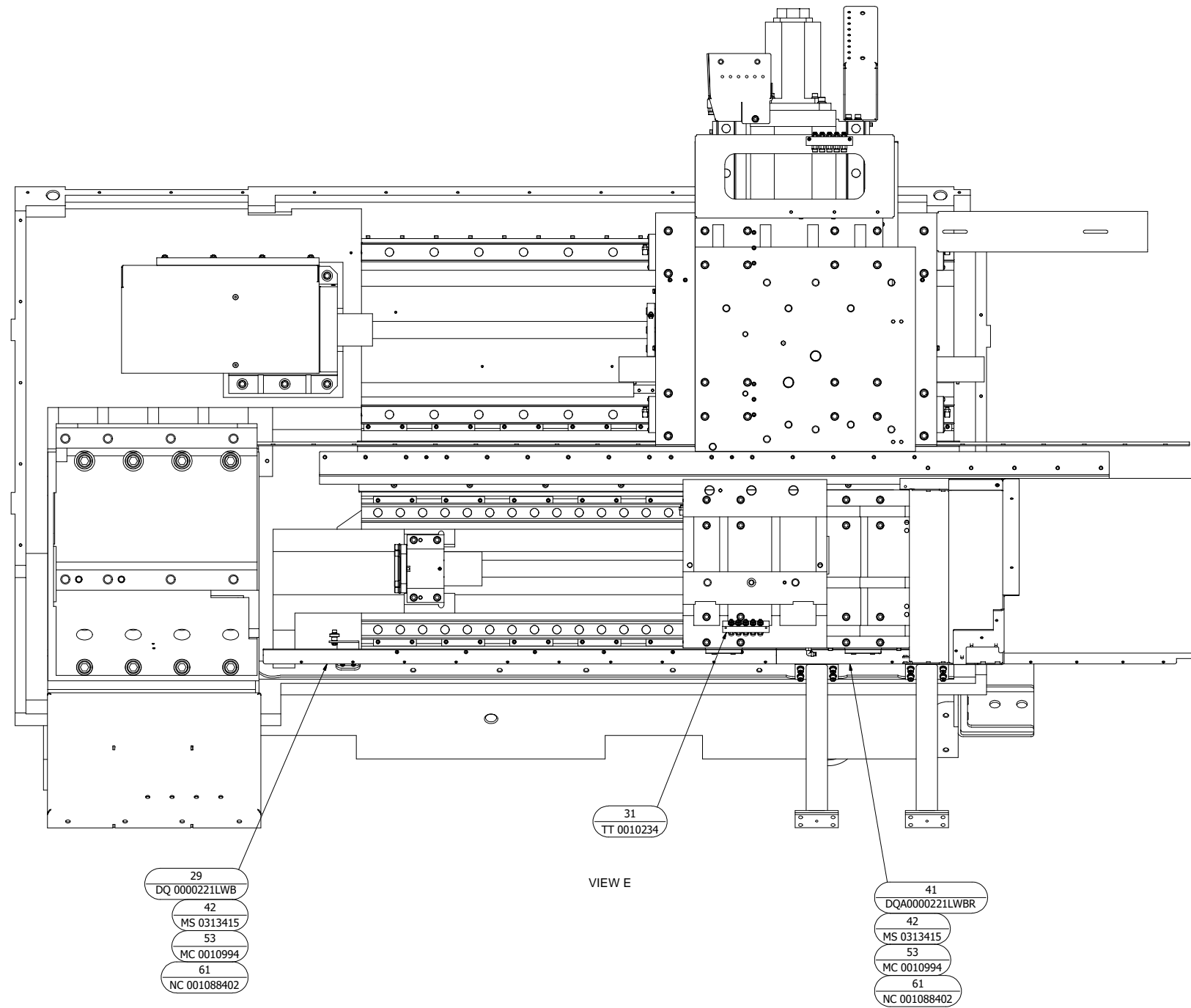
**Base Assembly, Machine with Tailstock or Sub-Spindle  
(INA Linear Guides)**



**Base Assembly, Machine with Tailstock or Sub-Spindle  
(INA Linear Guides)**

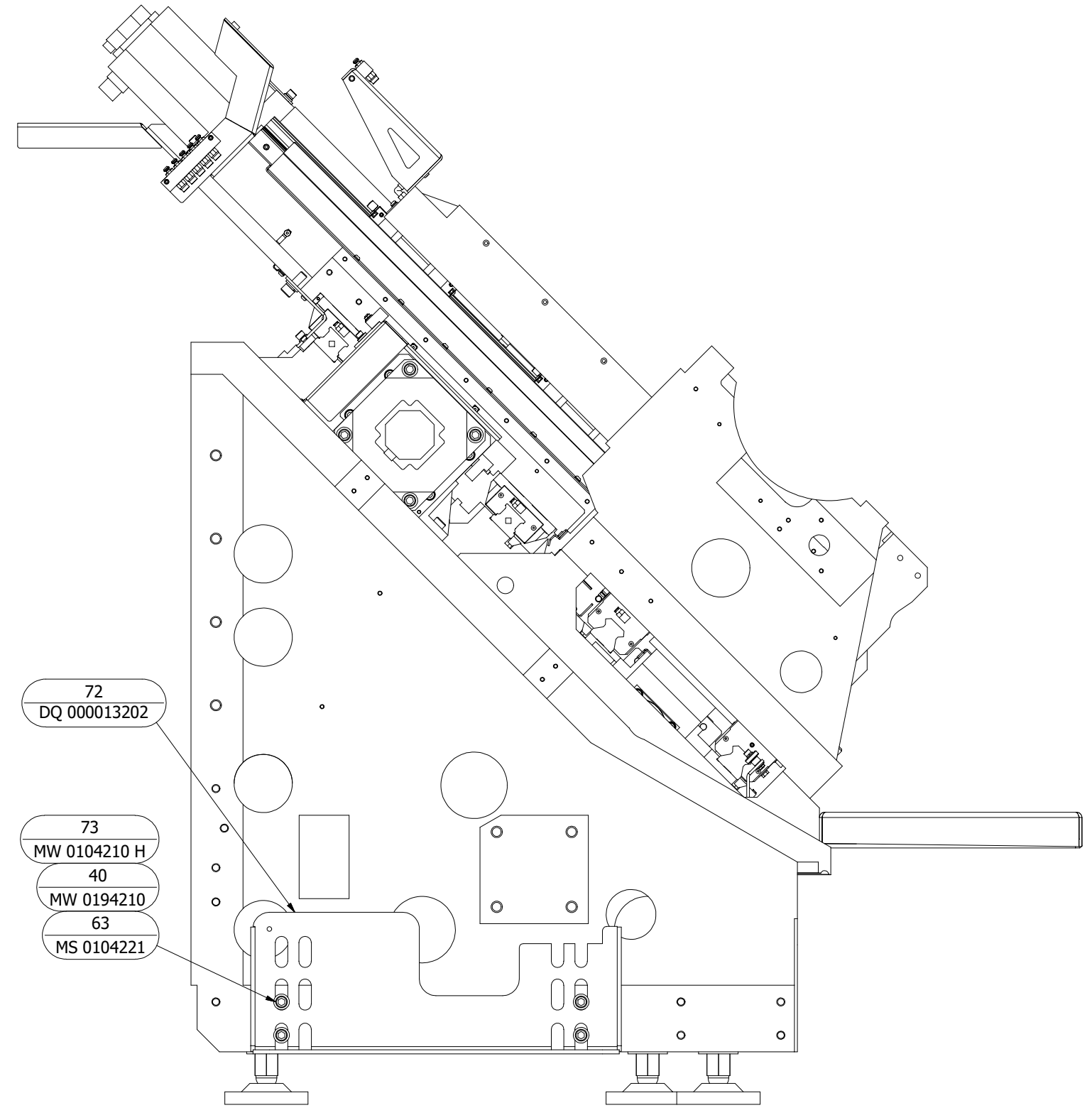
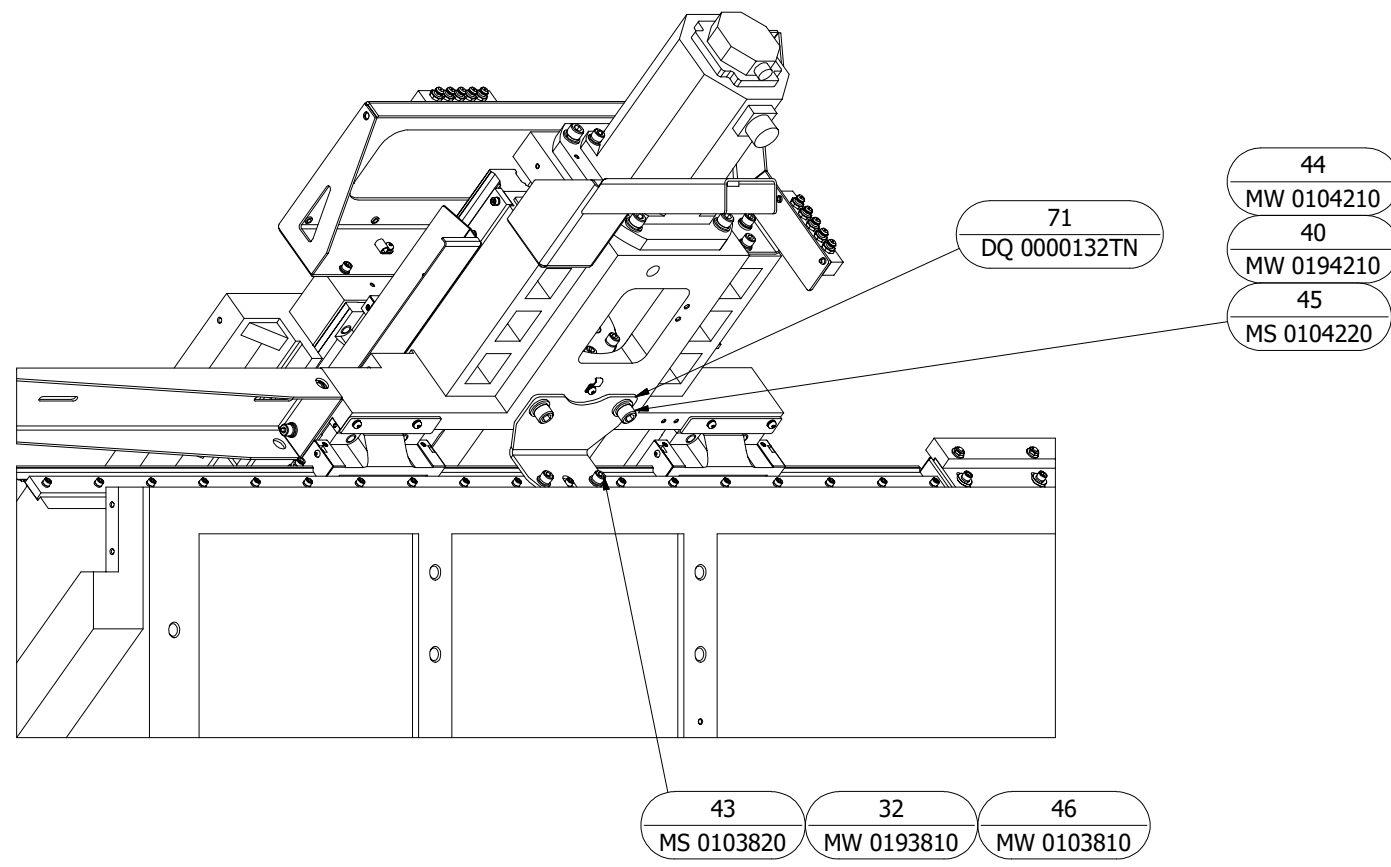


**BASE ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001HTLS**



BASE ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001HTLS

**Base Assembly, Machine with Tailstock or Sub-Spindle  
(INA Linear Guides)**



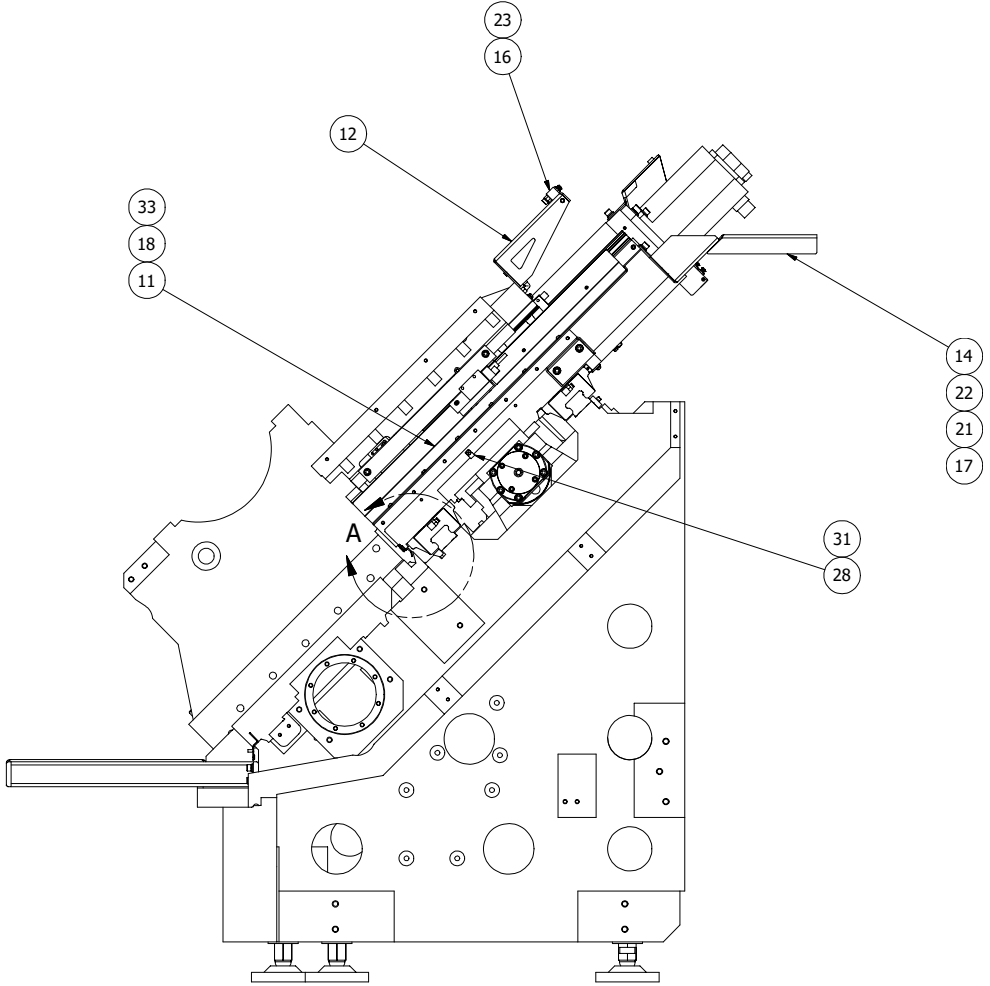
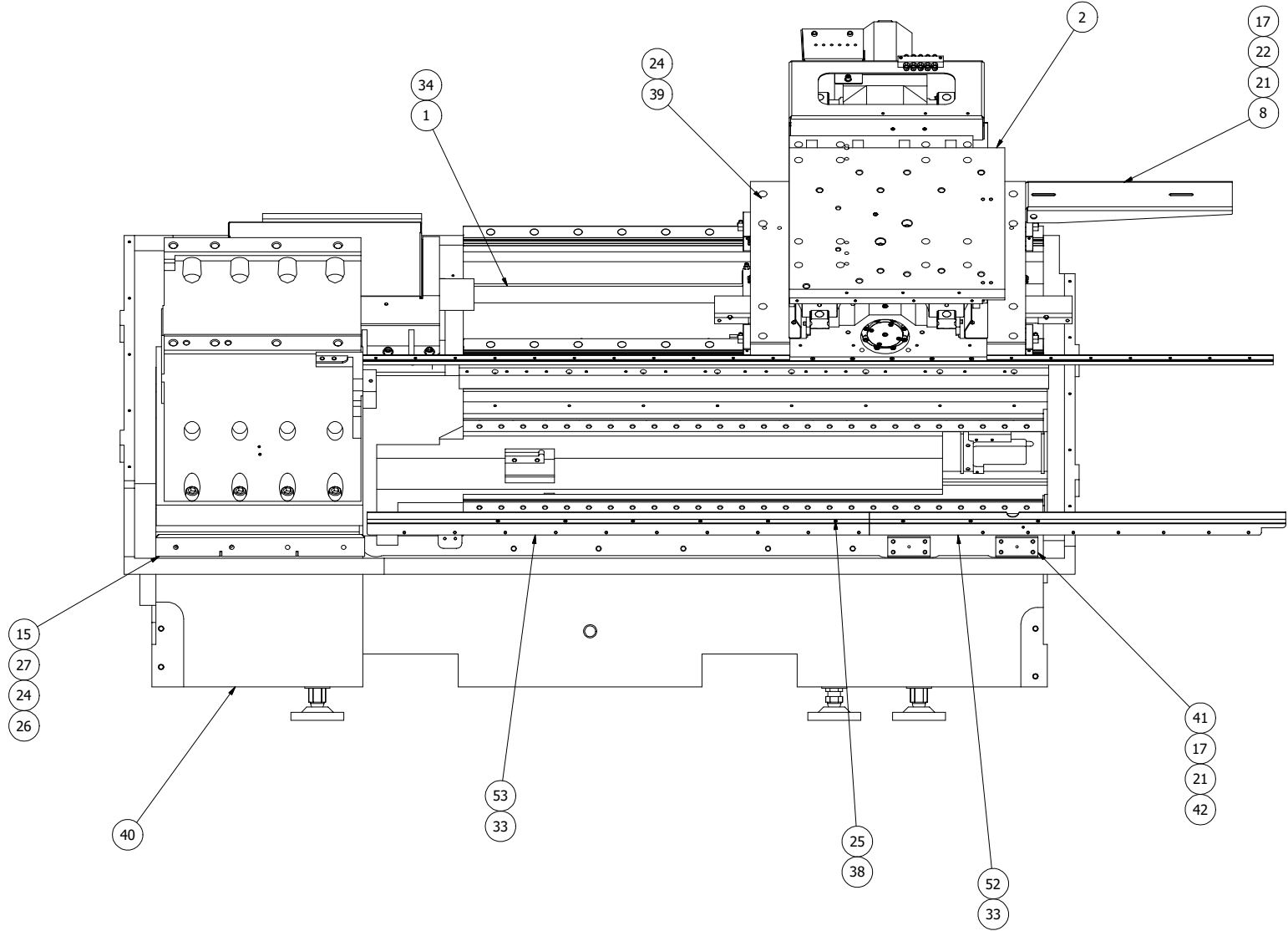
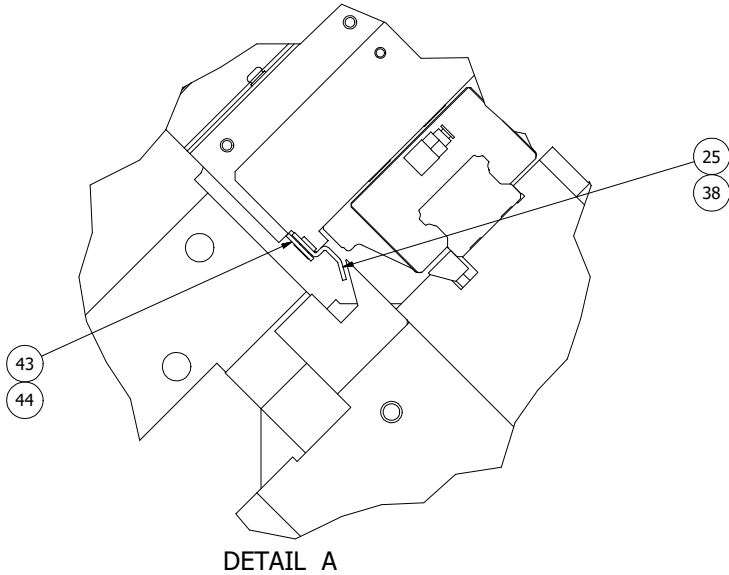
**BASE ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001HTLS**

**Base Assembly, Machine with Tailstock or Sub-Spindle  
(INA Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000001LAS	1	BASE ASSEMBLY (INA)
2	DQA0007500 Z	1	Z-AXIS SUB-ASSEMBLY
3	DQA0007500 E	1	E-AXIS SUB-ASSEMBLY
4	DQ 0006730S	1	CARRIAGE AND CROSS SLIDE ASS'Y (INA)
5	DQ 0000371SS	1	BASE, SUB SPINDLE
6	CQ 0001990LR	1	BRACKET, LOWER ROLLER
7	MN 0283610	6	NUT, SERRATED HEX FLANGE, M6X1
8	MS 0103620	1	SCREW, SHC, M6X1X30
9	HS 001107604	1	BUSHING, MAIN GUARD DOOR
10	AH 0011281	2	ROLLER BEARING
11	MW 0193610	17	WASHER, LOCK, M6
12	MW 0103610	10	WASHER, FLAT, M6
13	MS 0153618	1	SCREW, HEX HD M6X1.0X20
14	CQ 001107604	1	BUSHING, ROLLER
15	CQ 0001990BZG	1	BRACKET, Z WAYCOVER GUIDE
16	CQ 0008050ZWG	1	GUIDE, Z WAYCOVER
17	DQ 0001990LAL	1	LABYRINTH, LOWER AXIS
18	DQ 0001990ZWS	1	BRACKET, Z WAYCOVER SUPPORT
19	DQ 0001990TUE	1	TUBE, E-AXIS GREASE
20	DQ 0010115SS9	1	COVER, SUBSPINDLE REAR
21	DQA0000221UCPW	1	SUPPORT, Z-AXIS WIPER
22	DQA0010115LL	1	LABYRINTH, X-AXIS LEFT
23	DQA0010115RL	1	LABYRINTH, X-AXIS RIGHT
24	DQ 0000221EXTR	1	STIFFENER, X-AXIS COVER
25	DQ 0001990XCCL	1	BRACKET, X CABLE CARRIER LOWER
26	CQ 0001990ZCC	1	BRACKET, Z CABLE CARRIER
27	DQ 0010115TSSR	1	WAYCOVER, LOWER AXIS REAR
28	DQ 0000221STRE	1	SUPPORT, LOWER WAYCOVER
29	DQ 0000221LWB	1	LABYRINTH, LOWER WAYCOVER
30	DQ 0000262LESP	1	MOUNT, FRAME
31	TT 0010234	3	MANIFOLD ASSEMBLY, LUBRICATION
32	MW 0193810	23	WASHER, LOCK, M8
33	MS 0303516SA	14	SCREW ASSEMBLY, BH M5X.8X12
34	MS 0303616SA	8	SCREW ASSEMBLY, 6MX1X12
35	MS 0103617	12	SCREW, SHCS, M6X1X16
36	MS 0303617SA	4	SCREW ASSEMBLY, M6X1X16
37	5 0001895	17	WASHER
38	MS 0103818	13	SCREW, SHC, M8X1.25X20
39	MS 0103418	4	SCREW, SHC, M4X0.7X20
40	MW 0194210	30	WASHER, LOCK, M12

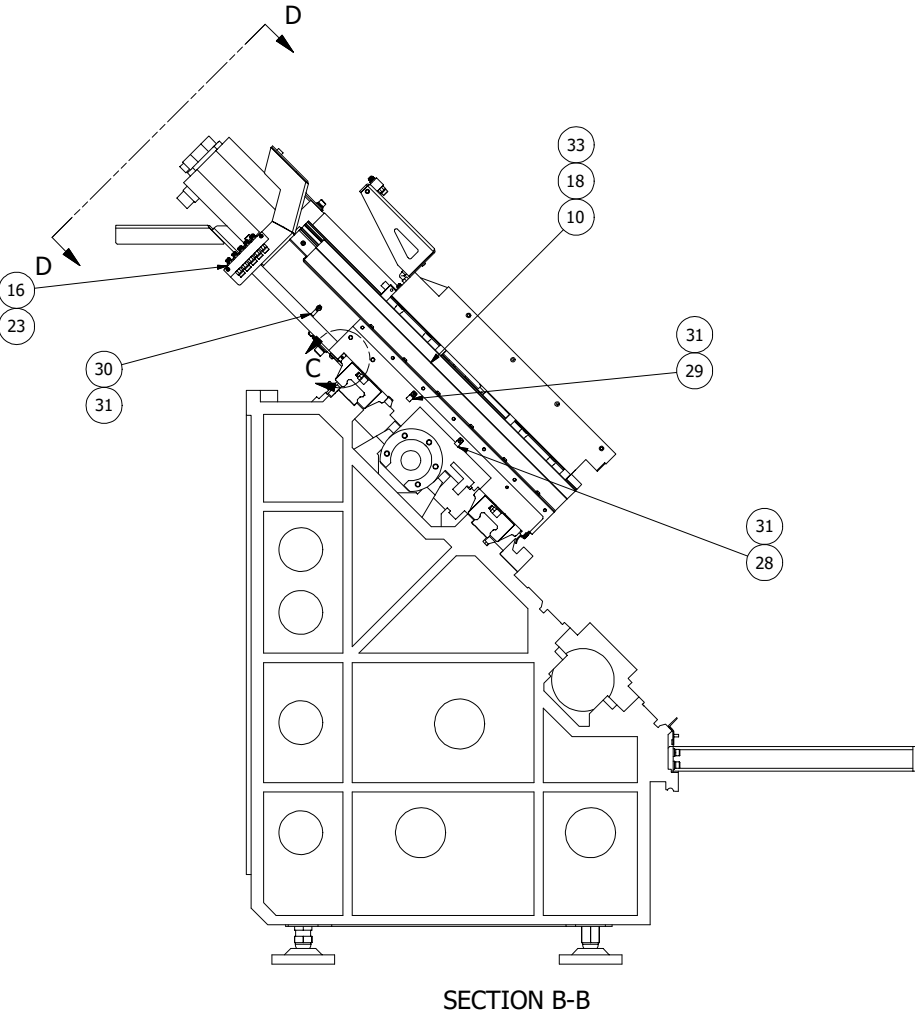
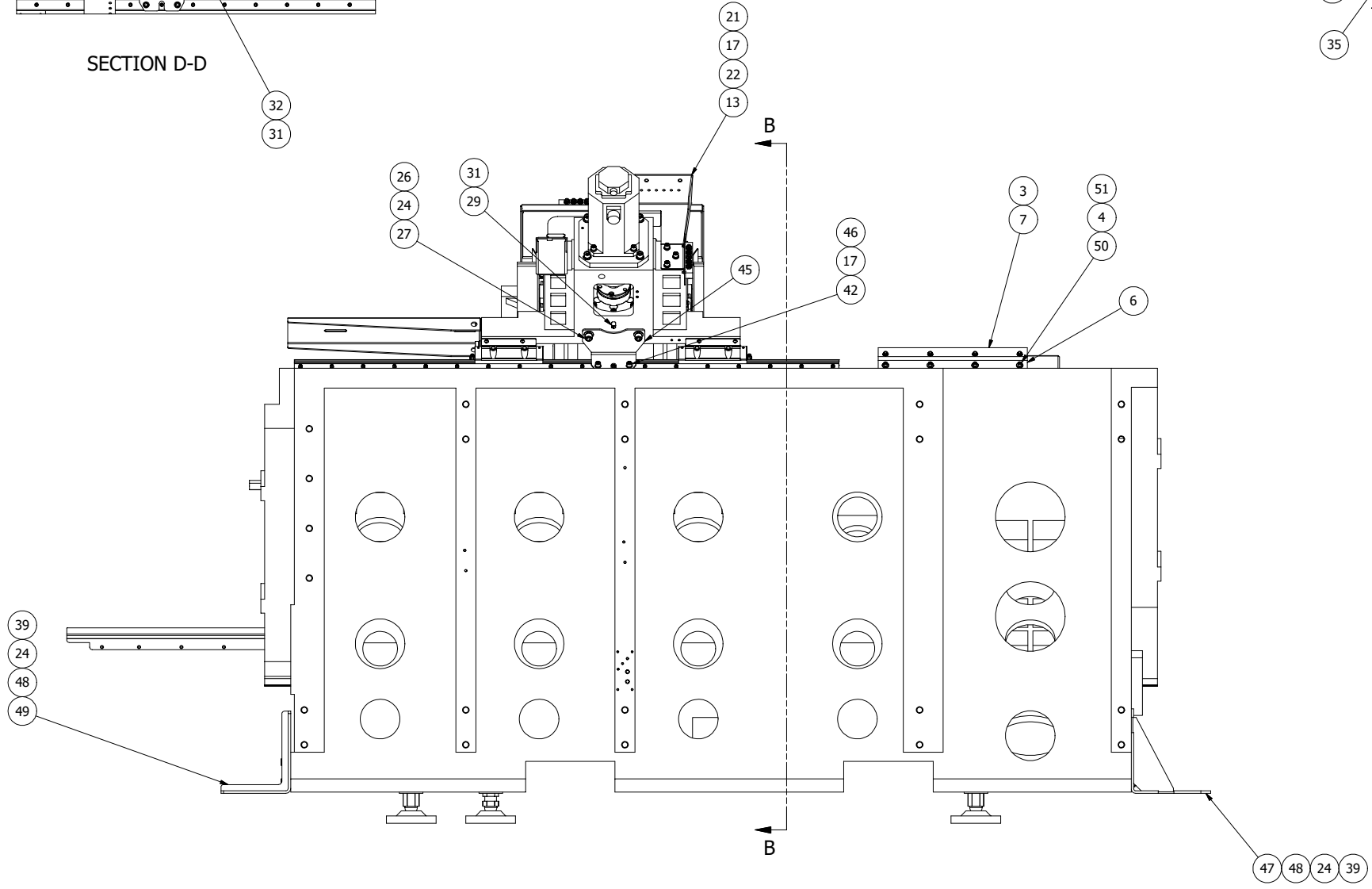
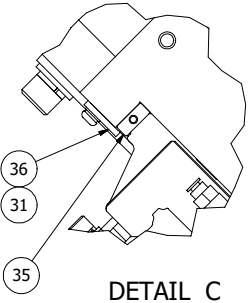
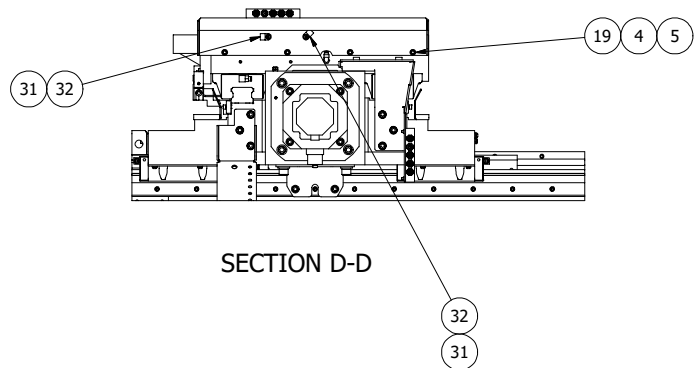
ITEM	PART NUMBER	QTY	DESCRIPTION
41	DQA0000221LWBR	1	LABYRINTH, LOWER WAYCOVER
42	MS 0313415	14	SCREW, FHC, M4 X 0.7 X 10
43	MS 0103820	10	SCREW, SHC, M8X1.25X30
44	MW 0104210	6	WASHER, FLAT, M12
45	MS 0104220	6	SCREW, SHC, M12X1.75X30
46	MW 0103810	6	WASHER, FLAT, M8
47	GK 0006966	3	CLAMP, HOSE 4 MM SINGLE
48	GK 000696601	3	CLAMP, HOSE 4MM DOUBLE
49	GK 000696602	1	CLAMP, HOSE TRIPLE
50	MS 0303515SA	13	SCREW ASSEMBLY BH M5X.8X10
51	CH 000962302	2	CABLE CLAMP, 5/16
52	SG 0007702 A12	1	ELBOW, MALE SWIVEL 4 MM X 1/8BS
53	MC 0010994	0.3	SILICONE GREASE
54	TT 0010994NCA	0.5	GREASE, NCA 15
55	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
56	DQ 0011083	2	SHIM, CARRIAGE
57	DQ 0001990CS	2	BRACKET, CARRIAGE SHIM
58	TT 0007007	168"	TUBING, PLASTIC
59	S 001070007	2	LEE PLUG 0.281
60	LT 0010884 S	0.2	SEALANT, PIPE
61	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
62	CS 0010994	0.1	GREASE
63	MS 0104221	24	SCREW, SHC, M12X1.75X35
64	MW 0194010	16	WASHER, LOCK, M10
65	MS 0104025	16	SCREW, SHC, M10X1.5X55
66	DQ 0001990BRK	1	BRACKET, WAY COVER
67	DQ 000026202	2	MOUNT, FRAME
68	DQ 0006481HYS	2	CLAMP, TRUCK
69	DQ 0001990XWR	1	RETAINER, X-AXIS WIPER
70	MS 0313515	5	SCREW, FHC, M5 X 0.8 X 10
71	DQ 0000132TN	1	BRACKET, Z-AXIS SHIPPING
72	DQ 000013202	1	BRACKET, SHIPPING LEFT
73	MW 0104210 H	8	WASHER, FLAT, HARD, M12
74	CQ 0000132	1	BRACKET, SHIPPING-RIGHT
75	MW 0163610	4	WASHER, M6 HEAVY
76	MS 0103618	4	SCREW, SHC, M6X1X20

**Base Assembly, Machine without Tailstock or Sub-Spindle  
(THK Linear Guides)**



**BASE ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQA0000001HT**

**Base Assembly, Machine without Tailstock or Sub-Spindle  
(THK Linear Guides)**



**BASE ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQA0000001HT**

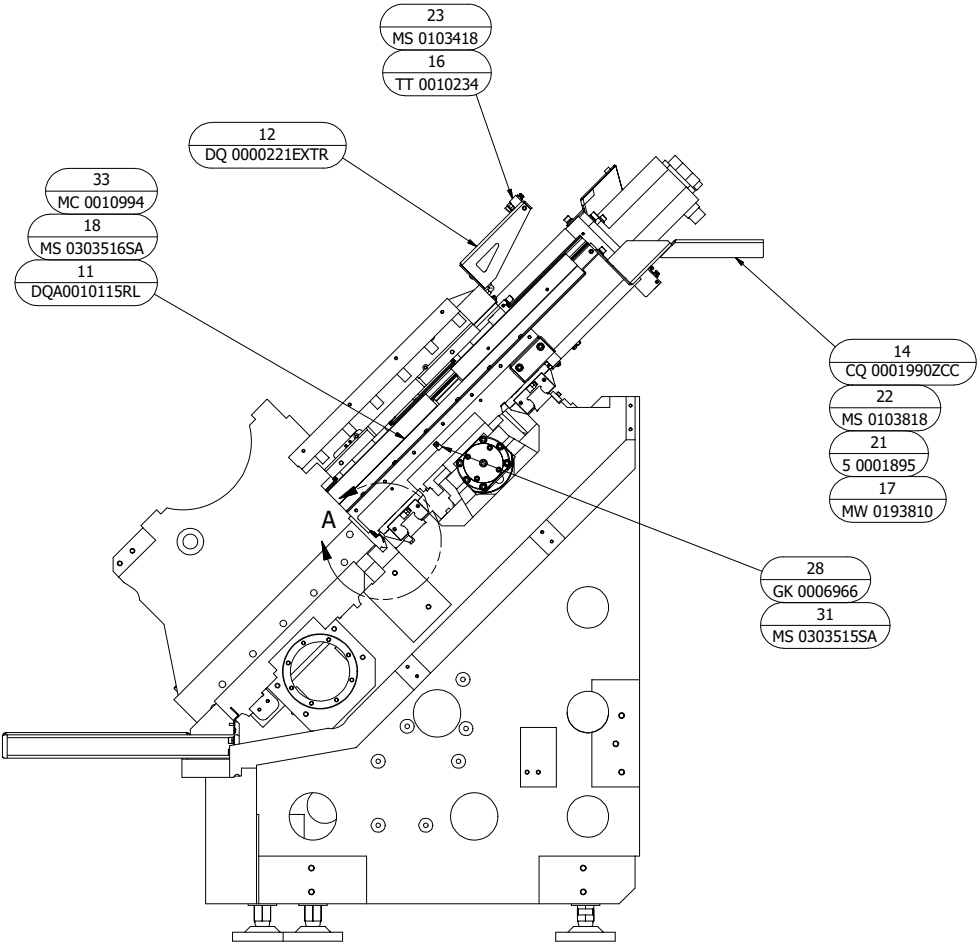
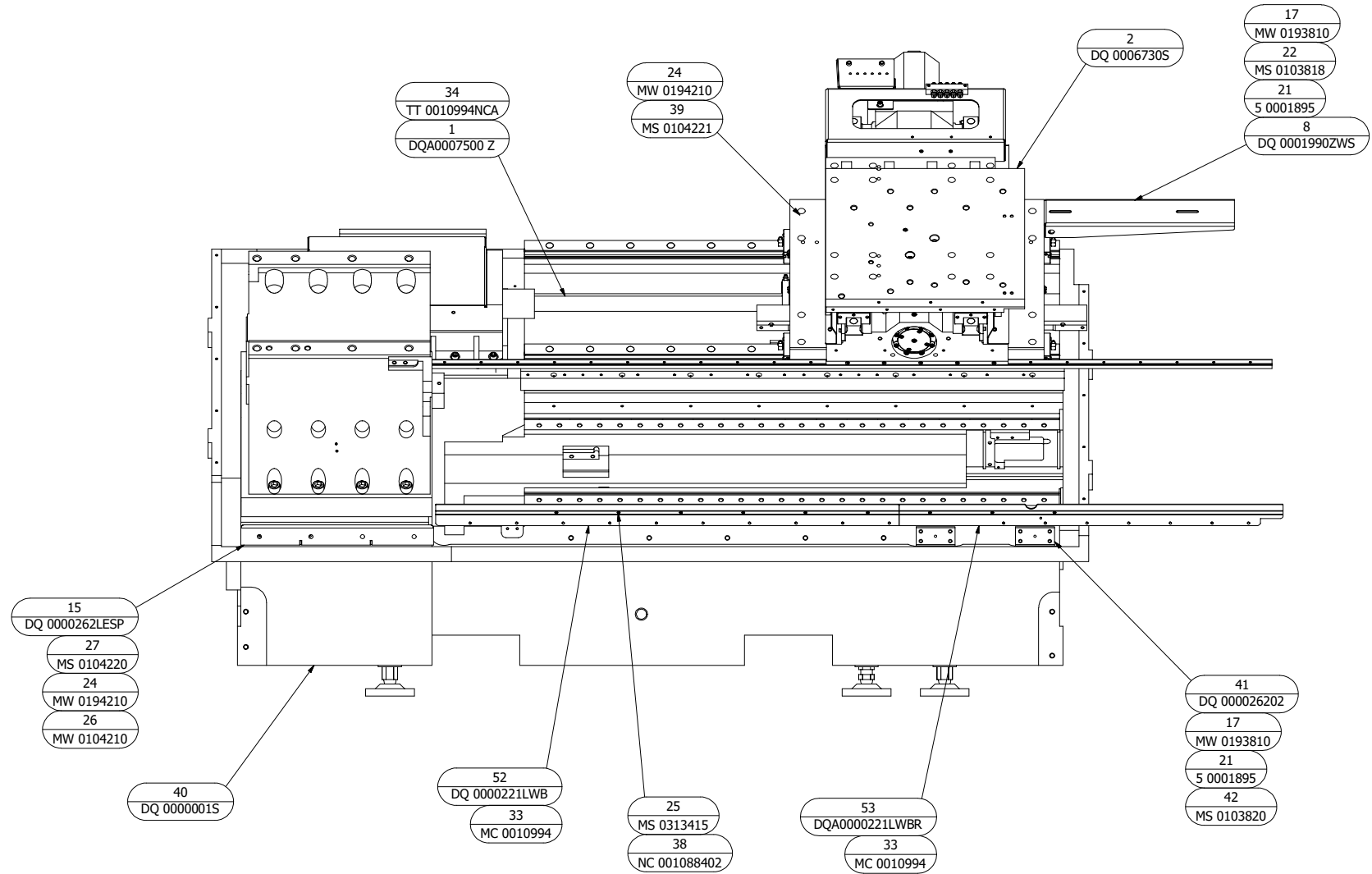
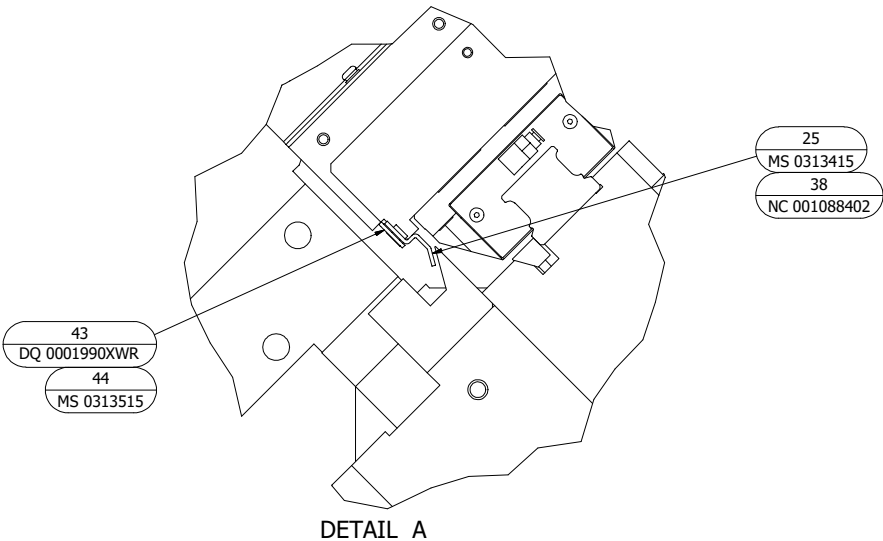


**Base Assembly, Machine without Tailstock or Sub-Spindle  
(THK Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQA0007500 Z	1	Z-AXIS SUB-ASSEMBLY
2	DQ 0006730	1	CARRIAGE AND CROSS SLIDE ASSEMBLY
3	MN 0283610	4	NUT, SERRATED HEX FLANGE, M6X1
4	MW 0193610	8	WASHER, LOCK, M6
5	MW 0103610	4	WASHER, FLAT, M6
6	CQ 0001990BZG	1	BRACKET, Z WAYCOVER GUIDE
7	CQ 0008050ZWG	1	GUIDE, Z WAYCOVER
8	DQ 0001990ZWS	1	BRACKET, Z WAYCOVER SUPPORT
9	DQA0000221UCPW	1	SUPPORT, Z-AXIS WIPER
10	DQA0010115LL	1	LABYRINTH, X-AXIS LEFT
11	DQA0010115RL	1	LABYRINTH, X-AXIS RIGHT
12	DQ 0000221EXTR	1	STIFFENER, X-AXIS COVER
13	DQ 0001990XCCL	1	BRACKET, X CABLE CARRIER LOWER
14	CQ 0001990ZCC	1	BRACKET, Z CABLE CARRIER
15	DQ 0000262LESP	1	MOUNT, FRAME
16	TT 0010234	2	MANIFOLD ASSEMBLY, LUBRICATION
17	MW 0193810	19	WASHER, LOCK, M8
18	MS 0303516SA	12	SCREW ASSEMBLY, BH M5X.8X12
19	MS 0103617	4	SCREW, SHC, M6X1X16
21	5 0001895	17	WASHER
22	MS 0103818	9	SCREW, SHC, M8X1.25X20
23	MS 0103418	4	SCREW, SHC, M4X0.7X20
24	MW 0194210	30	WASHER, LOCK, M12
25	MS 0313415	12	SCREW, FHCS, M4X0.7X10
26	MW 0104210	6	WASHER, FLAT, M12
27	MS 0104220	6	SCREW, SHC, M12X1.75X30
28	GK 0006966	2	CLAMP, HOSE 4 MM SINGLE
29	GK 000696601	2	CLAMP, HOSE 4MM DOUBLE
30	GK 000696602	1	CLAMP, HOSE TRIPLE
31	MS 0303515SA	11	SCREW ASSEMBLY, BH M5X.8X10
32	CH 000962302	2	CABLE CLAMP, 5/16
33	MC 0010994	0.02	GREASE, SILICONE
34	TT 0010994NCA	0.1	GREASE, NCA 15
35	DQ 0011083	2	SHIM, T-51 CARRIAGE
36	DQ 0001990CS	2	"BRACKET, CARRIAGE SHIM
37	TT 0007007	84"	TUBING, PLASTIC
38	NC 001088402	0.03	THREADLOCKER, LOCTITE 222
39	MS 0104221	24	SCREW, SHC, M12X1.75X35MM
40	DQ 0000001	1	BASE ASSEMBLY, LESS LOWER AXIS

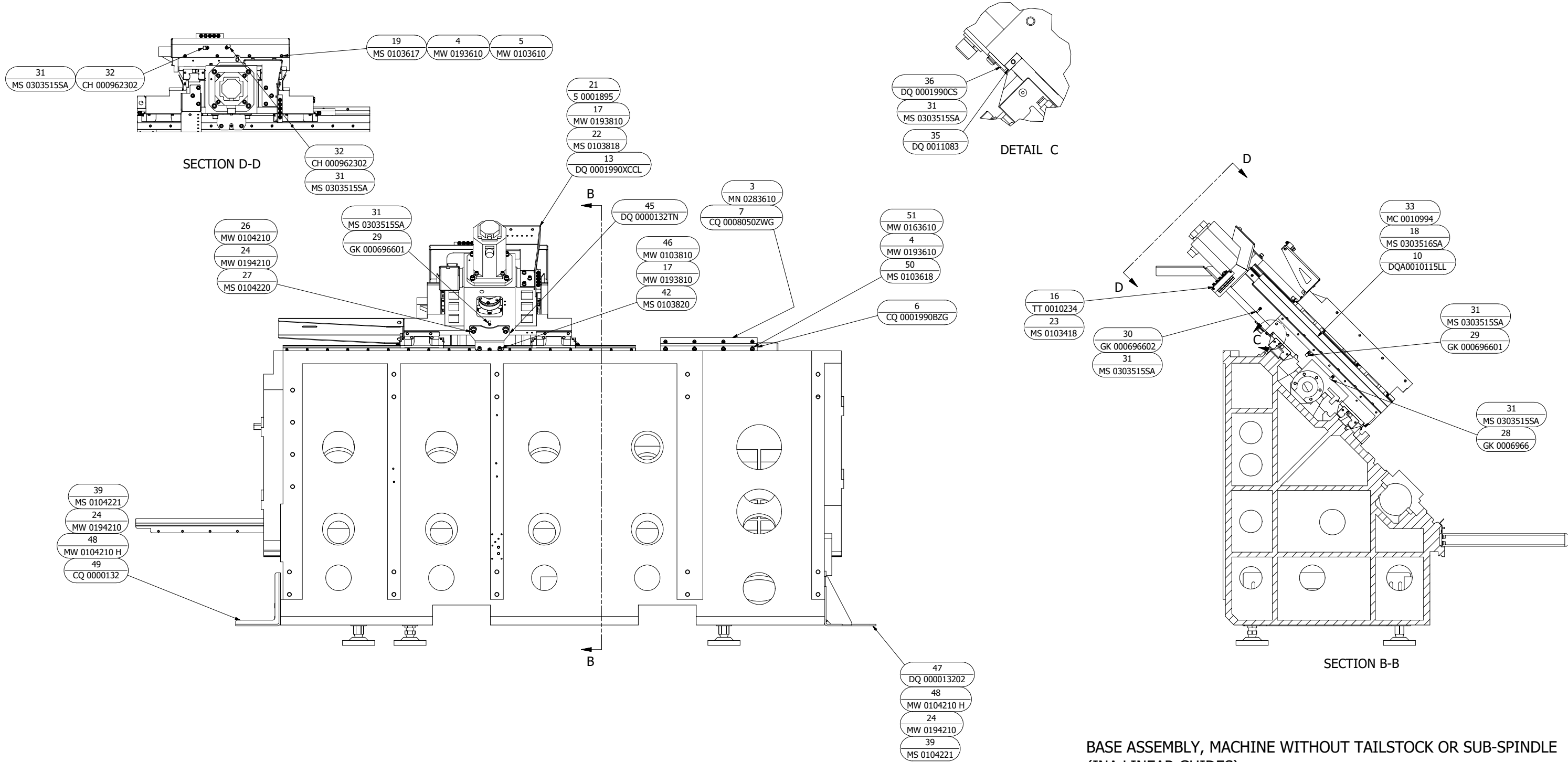
ITEM	PART NUMBER	QTY	DESCRIPTION
41	DQ 000026202	2	MOUNT, FRAME
42	MS 0103820	10	SCREW, SHC, M8X1.25X30
43	DQ 0001990XWR	1	RETAINER, X-AXIS WIPER
44	MS 0313515	5	SCREW, FHC, M5 X 0.8 X 1
45	DQ 0000132TN	1	BRACKET, Z-AXIS SHIPPING
46	MW 0103810	2	WASHER, FLAT, M8
47	DQ 000013202	1	BRACKET, SHIPPING LEFT
48	MW 0104210 H	8	WASHER, FLAT, HARD, M12
49	CQ 0000132	1	BRACKET, SHIPPING RIGHT
50	MS 0103618	4	SCREW, SHC, M6X1X20
51	MW 0163610	4	WASHER, M6 HEAVY
52	DQA0000221LWBR	1	LABYRINTH, LOWER WAYCOVER
53	DQ 0000221LWB	1	LABYRINTH, LOWER WAYCOVER

**Base Assembly, Machine without Tailstock or Sub-Spindle  
(INA Linear Guides)**



**BASE ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001HTS**

**Base Assembly, Machine without Tailstock or Sub-Spindle  
(INA Linear Guides)**

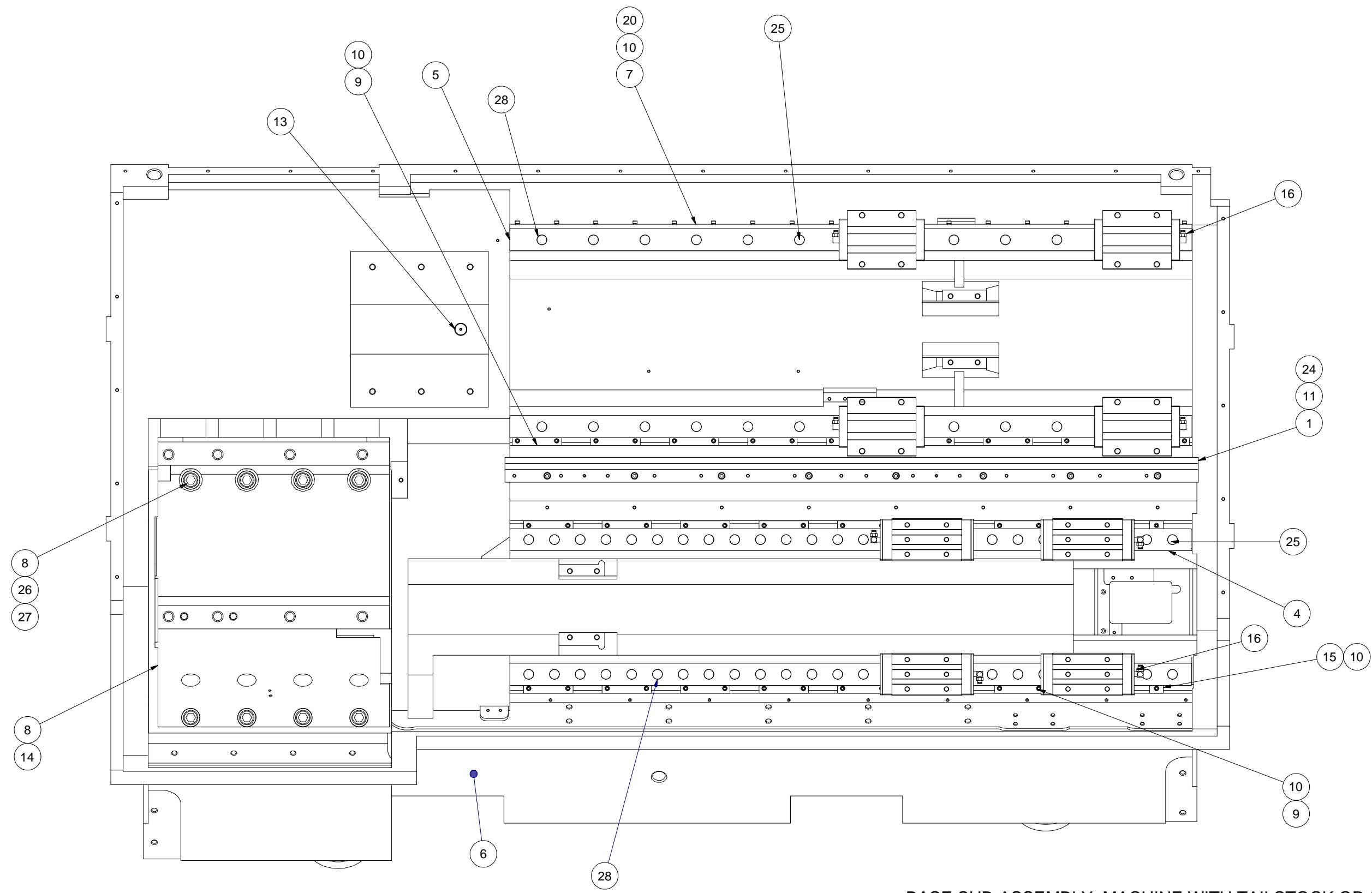


**BASE ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001HTS**

**Base Assembly, Machine without Tailstock or Sub-Spindle  
(INA Linear Guides)**

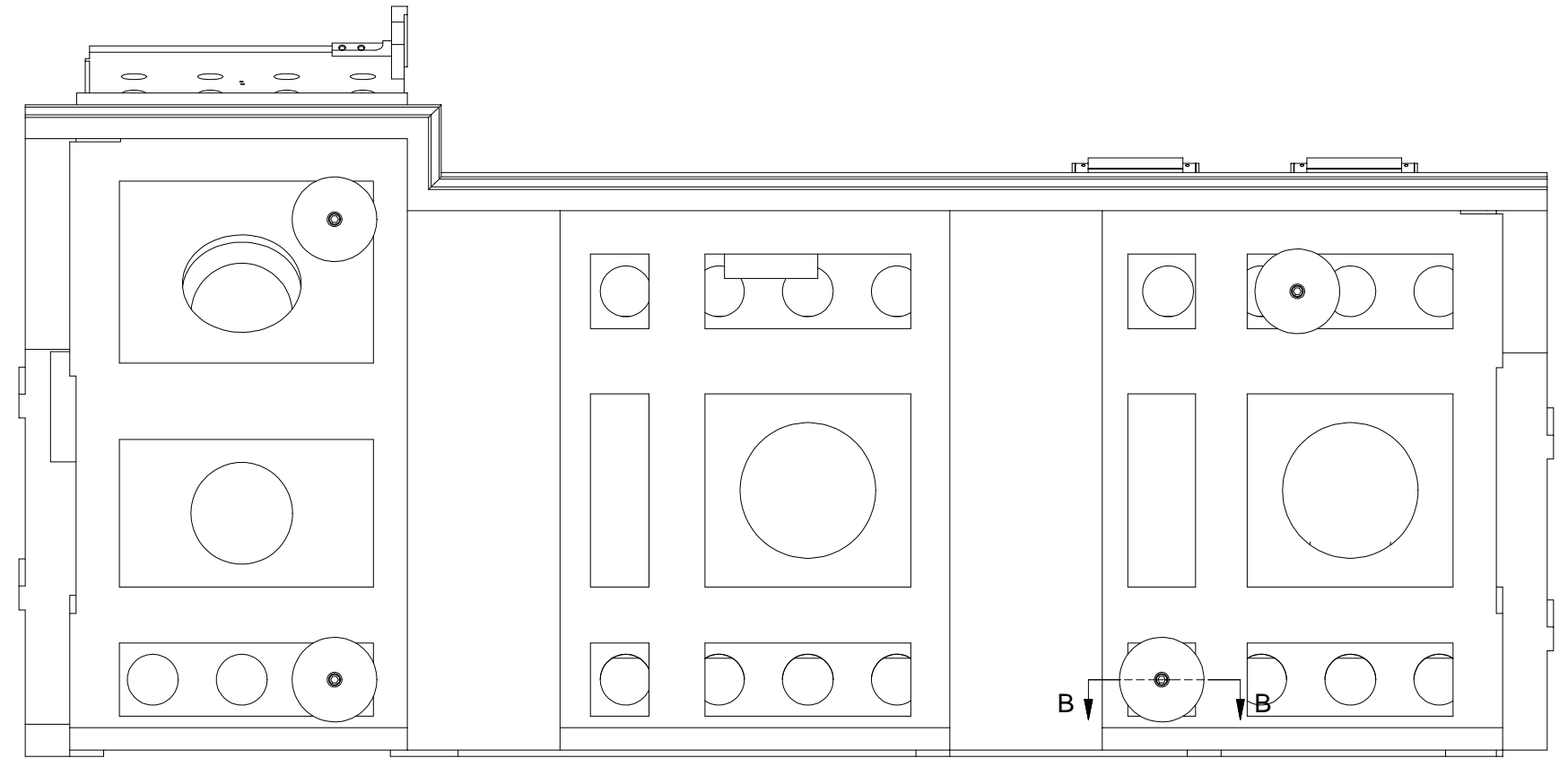
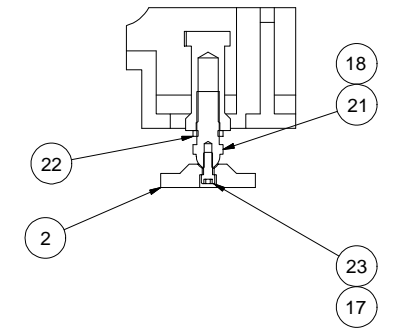
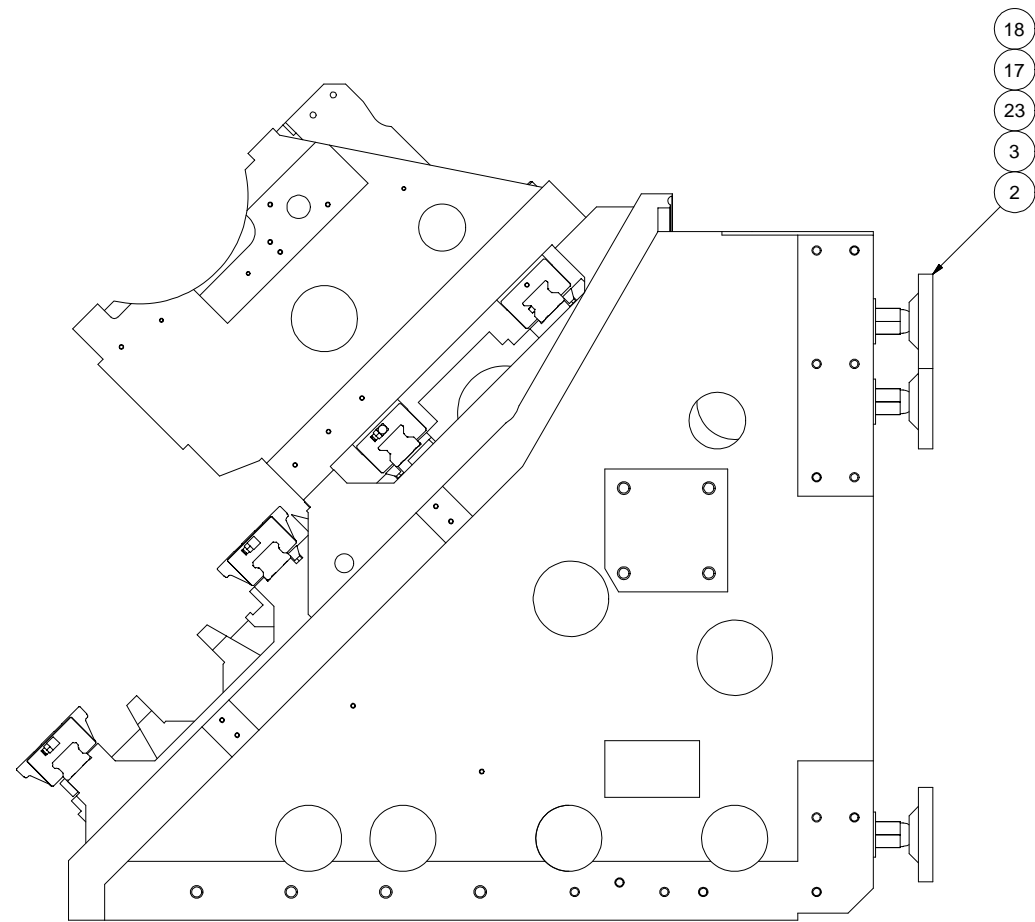
ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQA0007500 Z	1	Z-AXIS SUB-ASSEMBLY
2	DQ 0006730S	1	CARRIAGE AND CROSS SLIDE ASS'Y (INA)
3	MN 0283610	4	NUT, SERRATED HEX FLANGE, M6X1
4	MW 0193610	8	WASHER, LOCK, M6
5	MW 0103610	4	WASHER, FLAT, M6
6	CQ 0001990BZG	1	BRACKET, Z WAYCOVER GUIDE
7	CQ 0008050ZWG	1	GUIDE, Z WAYCOVER
8	DQ 0001990ZWS	1	BRACKET, Z WAYCOVER SUPPORT
9	DQA0000221UCPW	1	SUPPORT, Z-AXIS WIPER
10	DQA0010115LL	1	LABYRINTH, X-AXIS LEFT
11	DQA0010115RL	1	LABYRINTH, X-AXIS RIGHT
12	DQ 0000221EXTR	1	STIFFENER, X-AXIS COVER
13	DQ 0001990XCCL	1	BRACKET, X CABLE CARRIER LOWER
14	CQ 0001990ZCC	1	BRACKET, Z CABLE CARRIER
15	DQ 0000262LESP	1	MOUNT, FRAME
16	TT 0010234	2	MANIFOLD ASSEMBLY, LUBRICATION
17	MW 0193810	19	WASHER, LOCK, M8
18	MS 0303516SA	12	SCREW ASSEMBLY, BH M5X.8X12
19	MS 0103617	4	SCREW, SHC, M6X1X16
21	5 0001895	17	WASHER
22	MS 0103818	9	SCREW, SHC, M8X1.25X20
23	MS 0103418	4	SCREW, SHC, M4X0.7X20
24	MW 0194210	30	WASHER, LOCK, M12
25	MS 0313415	12	SCREW, FHC, M4 X 0.7 X 10
26	MW 0104210	6	WASHER, FLAT, M12
27	MS 0104220	6	SCREW, SHC, M12X1.75X30
28	GK 0006966	2	CLAMP, HOSE 4 MM SINGLE
29	GK 000696601	2	CLAMP, HOSE 4MM DOUBLE
30	GK 000696602	1	CLAMP, HOSE TRIPLE
31	MS 0303515SA	11	SCREW ASSEMBLY, BH M5X.8X10
32	CH 000962302	2	CABLE CLAMP, 5/16
33	MC 0010994	0.02	SILICONE GREASE
34	TT 0010994NCA	0.1	GREASE, NCA 15
35	DQ 0011083	2	SHIM, CARRIAGE
36	DQ 0001990CS	2	BRACKET, CARRIAGE SHIM
37	TT 0007007	84"	TUBING, PLASTIC
38	NC 001088402	0.03	THREADLOCKER, LOCTITE 222
39	MS 0104221	24	SCREW, SHC, M12X1.75X35
40	DQ 0000001S	1	BASE ASSEMBLY, LESS LOWER AXIS (INA)

ITEM	PART NUMBER	QTY	DESCRIPTION
41	DQ 000026202	2	MOUNT, FRAME
42	MS 0103820	10	SCREW, SHC, M8X1.25X30
43	DQ 0001990XWR	1	RETAINER, X-AXIS WIPER
44	MS 0313515	5	SCREW, FHC, M5 X 0.8 X 10
45	DQ 0000132TN	1	BRACKET, Z-AXIS SHIPPING
46	MW 0103810	2	WASHER, FLAT, M8
47	DQ 000013202	1	BRACKET, SHIPPING LEFT
48	MW 0104210 H	8	WASHER, FLAT, HARD, M12
49	CQ 0000132	1	BRACKET, SHIPPING-RIGHT
50	MS 0103618	4	SCREW, SHC, M6X1X20
51	MW 0163610	4	WASHER, M6 HEAVY
52	DQ 0000221LWB	1	LABYRINTH, LOWER WAYCOVER
53	DQA0000221LWBR	1	LABYRINTH, LOWER WAYCOVER



BASE SUB-ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQ 000001LA

**Base Sub-Assembly, Machine with Tailstock or Sub-Spindle  
(THK Linear Guides)**

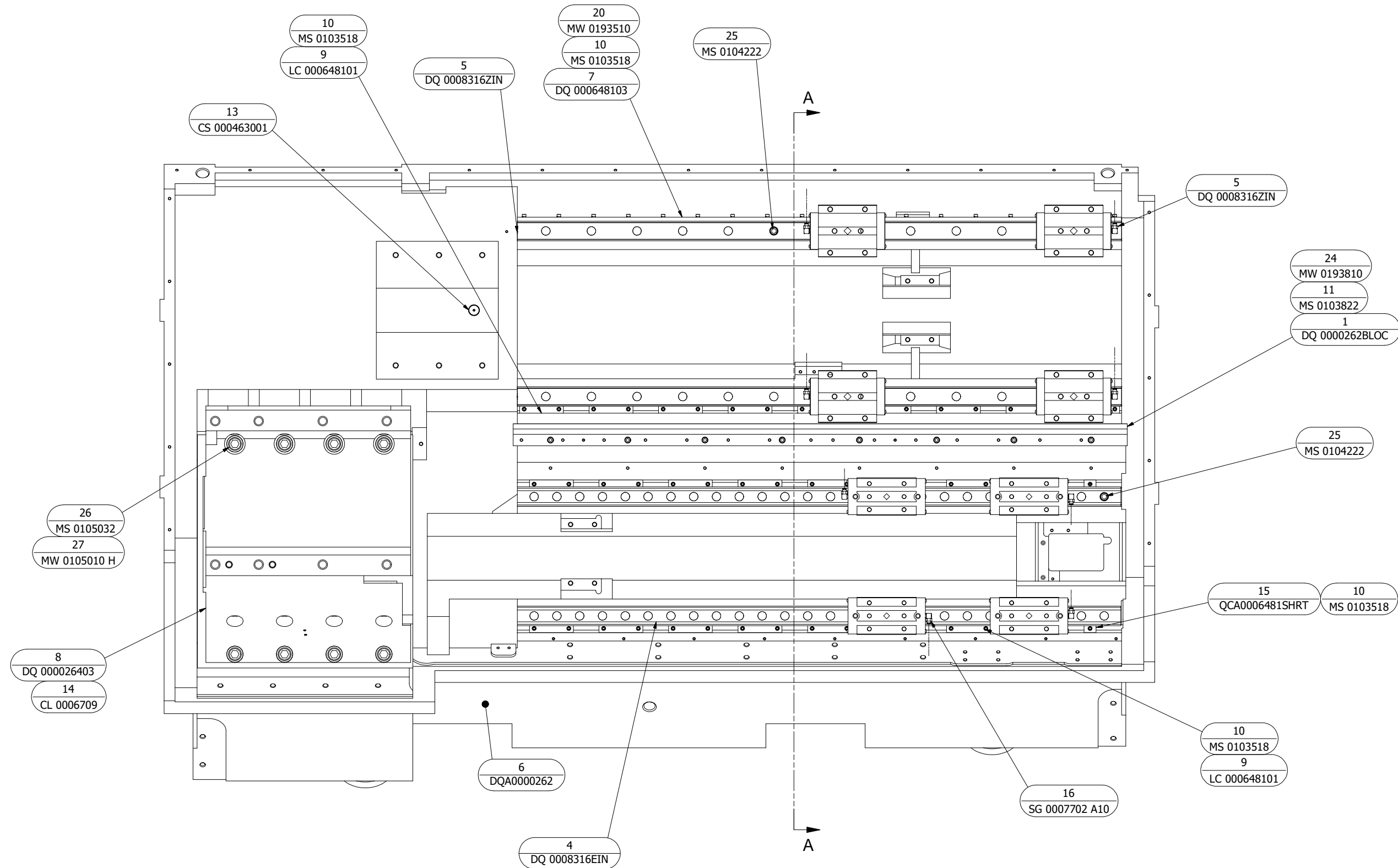


BASE SUB-ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQ 000001LA

**Base Sub-Assembly, Machine with Tailstock or Sub-Spindle  
(THK Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000262BLOC	1	BLOCK, WAYCOVER MOUNTING
2	CLA0009455	4	FOOT, BASE
3	CL 0009454	3	FOOT, FIXED - BASE
4	DQ 0008316 E	1	LINEAR GUIDEWAYS, E-AXIS
5	DQ 0008316 Z	1	LINEAR GUIDEWAYS, Z-AXIS
6	DQA0000262	1	BASE
7	DQ 000648103	1	GIB, GUIDE RAIL
8	DQ 000026403	1	HEADSTOCK RISER
9	LC 000648101	25	GIB GUIDE RAIL
10	MS 0103518	69	SCREW, SHC, M5X0.8X20MM
11	MS 0103822	8	SCREW, SHC, M8X1.25X40MM
13	CS 000463001	1	DOWEL, TURRET PIVOT
14	CL 0006709	2	PIN, PULL OUT DOWEL
15	QCA0006481SHRT	2	GIB, GUIDE RAIL SHORT
16	SG 0007702 A10	8	CONNECTOR MALE 4MMOD X1/8 BSP
17	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
18	HG 0010440	0.1	GREASE, ANTI-SIEZE, BLACK MOLLY
19	MS 0103821	1	SCREW, SHC, M8X1.25X35
20	MW 0193510	18	WASHER, LOCK, M5
21	HG 0009454	1	FOOT, ADJUSTABLE BASE
22	CS 0008325	1	NUT, LOCK ADJUSTABLE SCREW
23	MS 0104220	4	SCREW, SHC, M12X1.75X30
24	MW 0193810	8	WASHER, LOCK, M8
25	MS 0104222	78	SCREW, SHC, M12X1.75X40
26	MS 0105032	8	SCREW, SHC, M20X2.5X100
27	MW 0105010 H	8	WASHER, FLAT, HARD, M20
28	DQ 0008316P	78	PLUG, LINEAR GUIDE

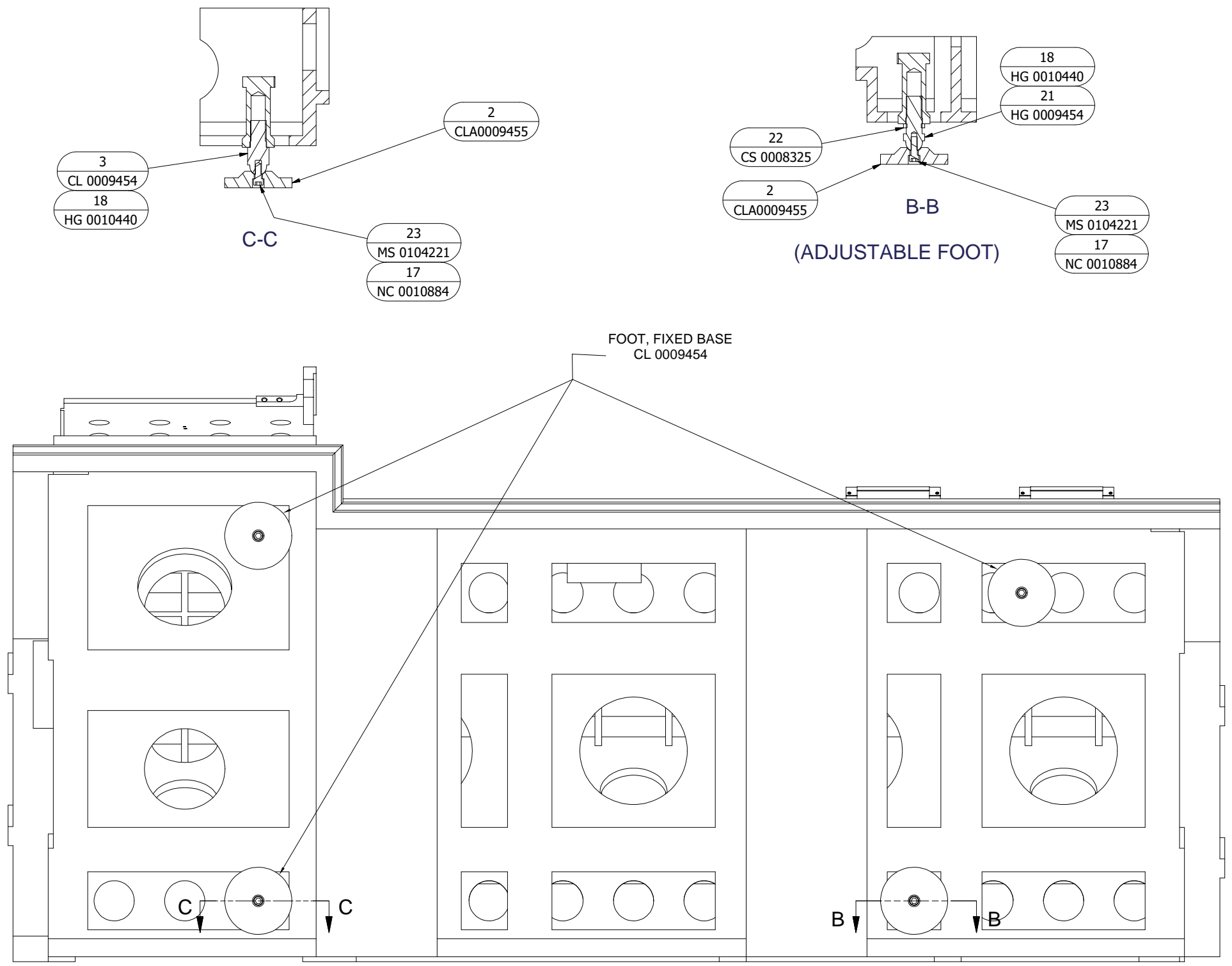
Base Sub-Assembly, Machine with Tailstock or Sub-Spindle  
(INA Linear Guides)



BASE SUB-ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001LAS



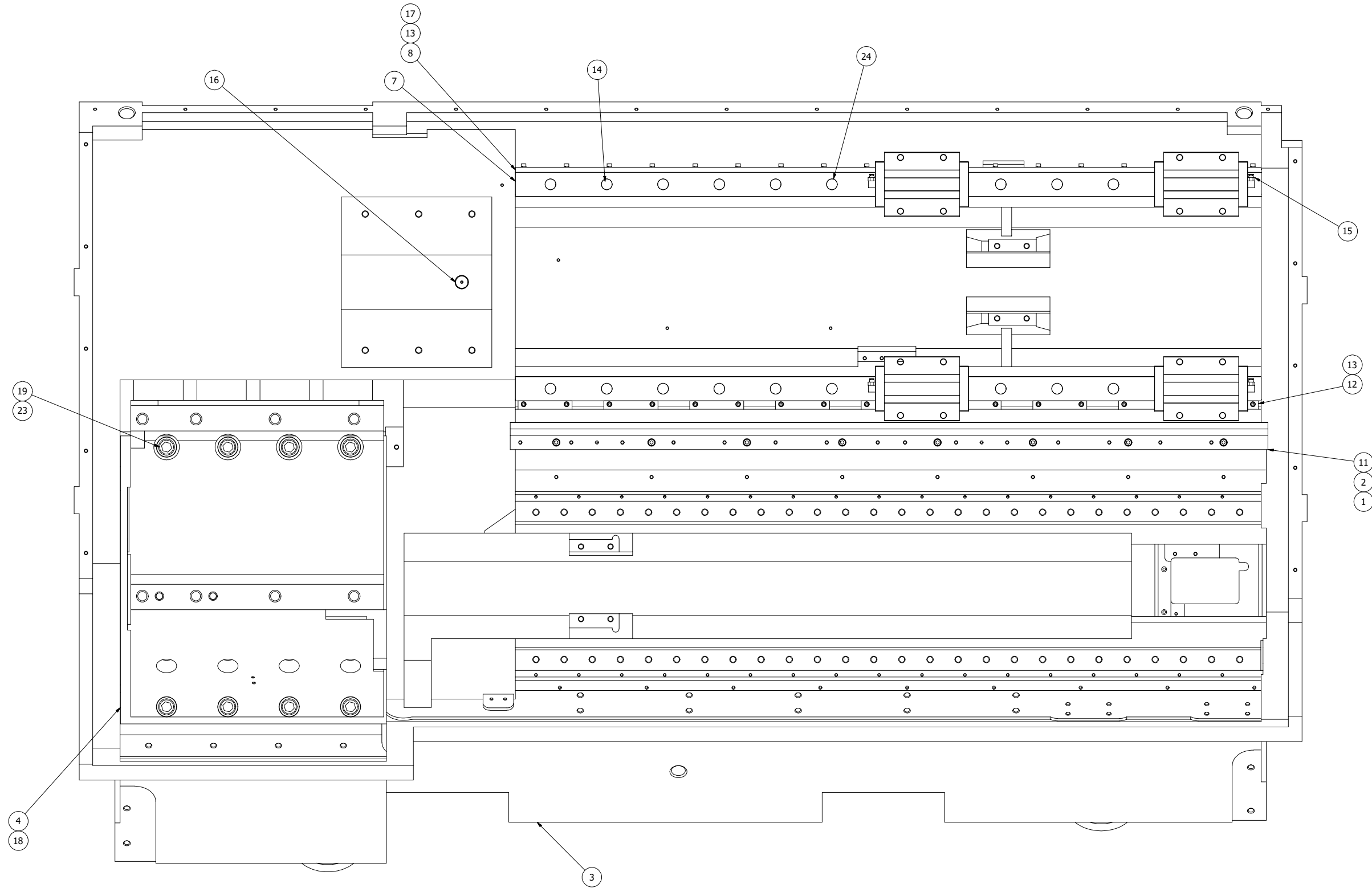
**Base Sub-Assembly, Machine with Tailstock or Sub-Spindle  
(INA Linear Guides)**



**BASE SUB-ASSEMBLY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001LAS**

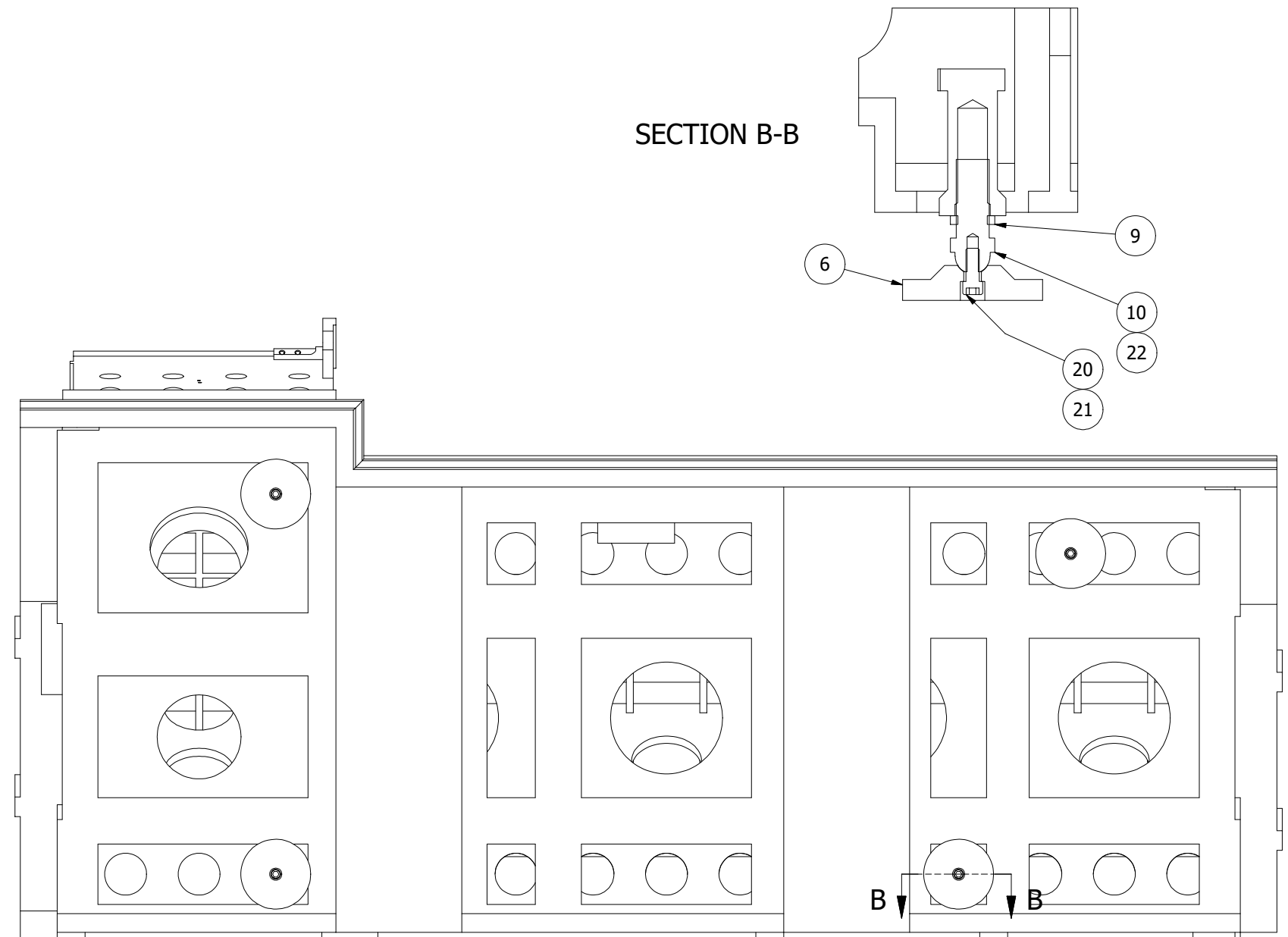
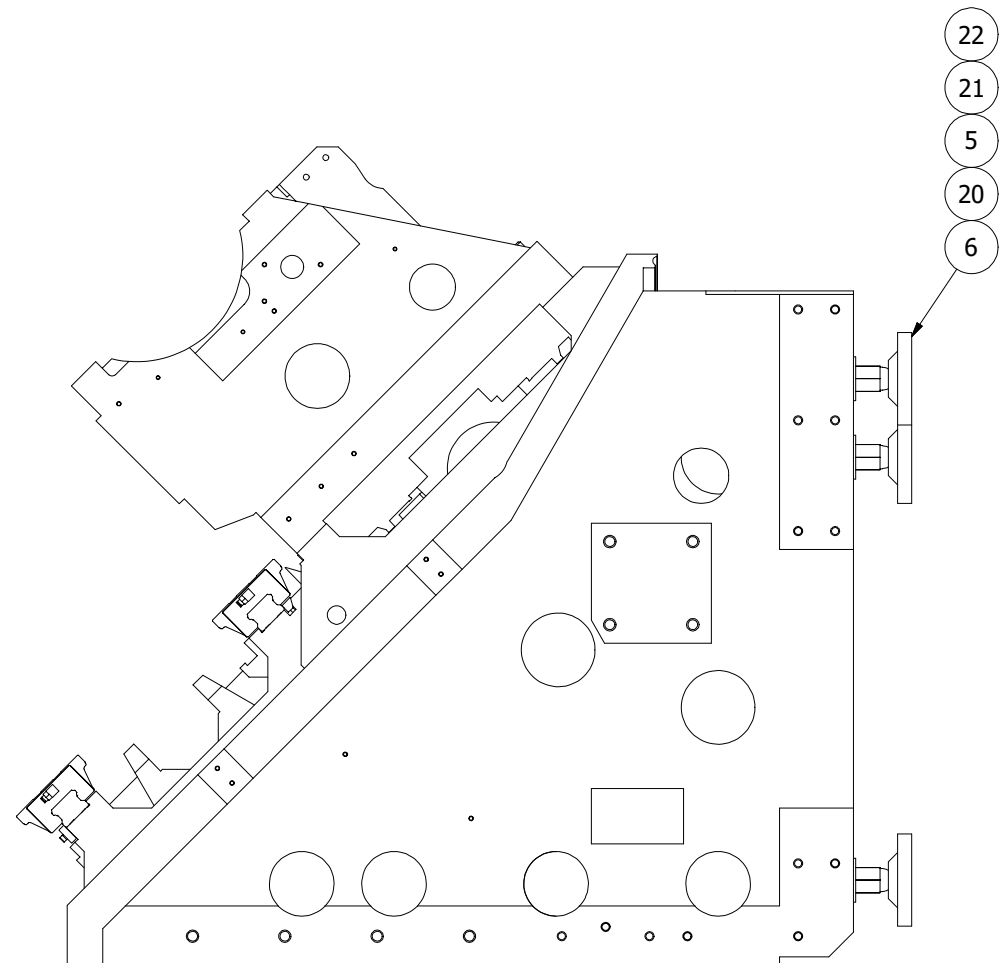
**Base Sub-Assembly, Machine with Tailstock or Sub-Spindle  
(INA Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000262BLOC	1	BLOCK, WAYCOVER MOUNTING
2	CLA0009455	4	FOOT, BASE
3	CL 0009454	3	FOOT, FIXED - BASE
4	DQ 0008316EIN	1	LINEAR GUIDEWAYS, E-AXIS
5	DQ 0008316ZIN	1	LINEAR GUIDEWAYS, Z AXIS
6	DQA0000262	1	BASE
7	DQ 000648103	1	GIB, GUIDE RAIL
8	DQ 000026403	1	HEADSTOCK RISER
9	LC 000648101	25	GIB GUIDE RAIL
10	MS 0103518	69	SCREW, SHC, M5X0.8X20
11	MS 0103822	8	SCREW, SHC, M8X1.25X40
13	CS 000463001	1	DOWEL, TURRET PIVOT
14	CL 0006709	2	PIN, PULL OUT DOWEL
15	QCA0006481SHRT	2	GIB, GUIDE RAIL SHORT
16	SG 0007702 A10	8	CONNECTOR, MALE 4MMOD X1/8 BSP
17	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
18	HG 0010440	0.1	GREASE, ANTI-SIEZE, BLACK MOLLY
20	MW 0193510	18	WASHER, LOCK, M5
21	HG 0009454	1	FOOT, ADJ -BASE
22	CS 0008325	1	NUT, LOCK ADJ SCREW
23	MS 0104221	4	SCREW, SHC, M12X1.75X35MM
24	MW 0193810	8	WASHER, LOCK, M8
25	MS 0104222	78	SCREW, SHC, M12X1.75X40
26	MS 0105032	8	SCREW, SHC, M20X2.5X100
27	MW 0105010 H	8	WASHER, FLAT, HARD, M20



BASE SUB-ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQ 000001

Base Sub-Assembly, Machine without Tailstock or Sub-Spindle  
(THK Linear Guides)

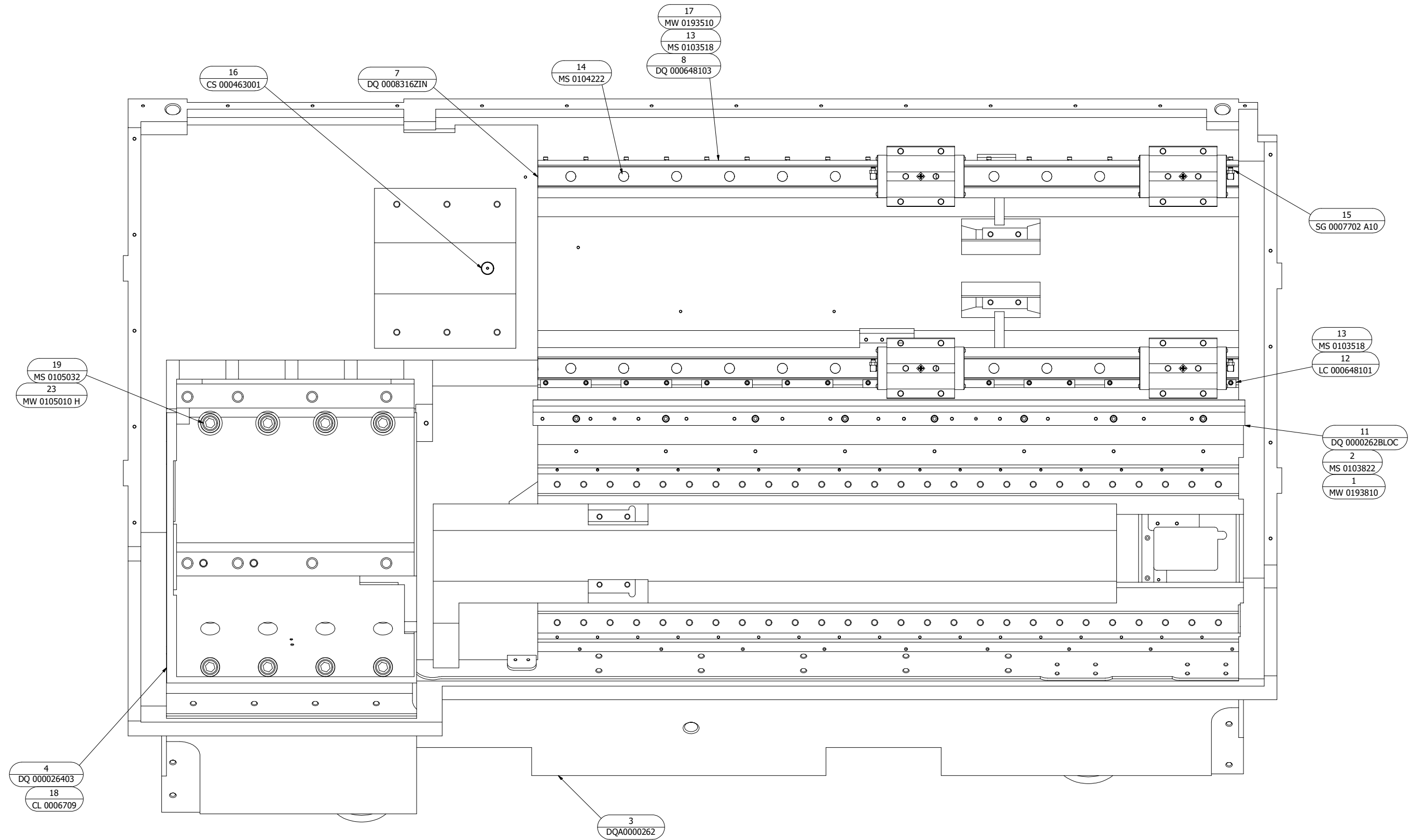


BASE SUB-ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(THK LINEAR GUIDES)  
DQ 000001

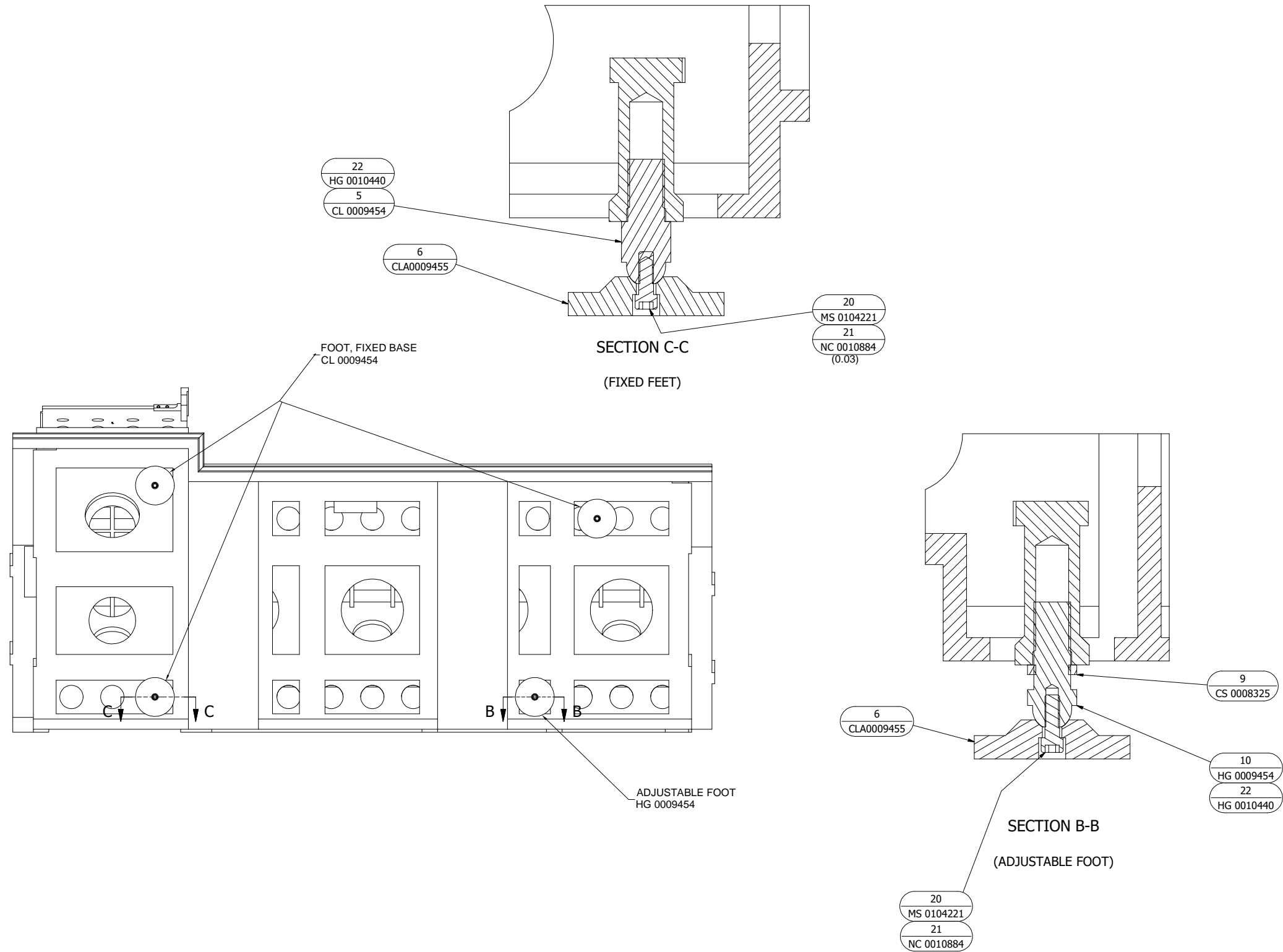
**Base Sub-Assembly, Machine without Tailstock or Sub-Spindle  
(THK Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	MW 0193810	8	WASHER, LOCK, M8
2	MS 0103822	8	SCREW, SHC, M8X1.25X40
3	DQA0000262	1	BASE
4	DQ 000026403	1	HEADSTOCK RISER
5	CL 0009454	3	FOOT, FIXED - BASE
6	CLA0009455	4	FOOT, BASE
7	DQ 0008316 Z	1	LINEAR GUIDEWAYS, Z-AXIS
8	DQ 000648103	1	GIB, GUIDE RAIL
9	CS 0008325	1	NUT, LOCK ADJ SCREW
10	HG 0009454	1	FOOT, ADJUSTABLE BASE
11	DQ 0000262BLOC	1	BLOCK, WAYCOVER MOUNTING
12	LC 000648101	9	GIB GUIDE RAIL
13	MS 0103518	36	SCREW, SHC, M5X0.8X20
14	MS 0104222	26	SCREW, SHC, M12X1.75X40
15	SG 0007702 A10	4	CONNECTOR, MALE 4MMOD X1/8 BSP
16	CS 000463001	1	DOWEL, TURRET PIVOT
17	MW 0193510	18	WASHER, LOCK, M5
18	CL 0006709	2	PIN, PULL OUT DOWEL
19	MS 0105032	8	SCREW, SHC, M20X2.5X100
20	MS 0104220	4	SCREW, SHC, M12X1.75X30
21	NC 0010884	0.07	THREADLOCKER, LOCTITE 242
22	HG 0010440	0.06	GREASE, ANTI-SIEZE, BLACK MOLY
23	MW 0105010 H	8	WASHER, FLAT, HARD, M20
24	DQ 0008316P	26	PLUG, LINEAR GUIDE

Base Sub-Assembly, Machine without Tailstock or Sub-Spindle  
(INA Linear Guides)



BASE SUB-ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001S

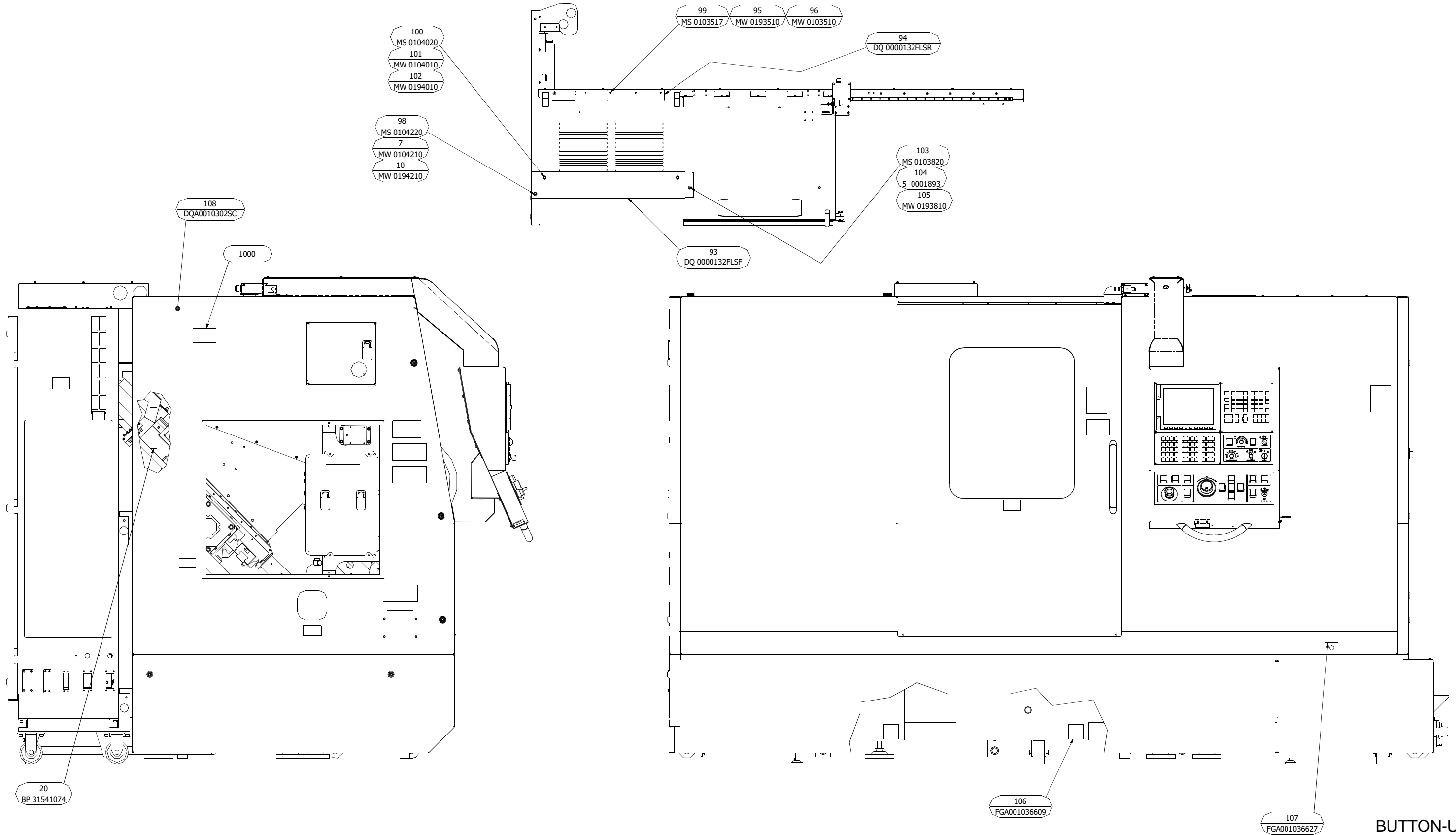


BASE SUB-ASSEMBLY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE  
(INA LINEAR GUIDES)  
DQ 0000001S

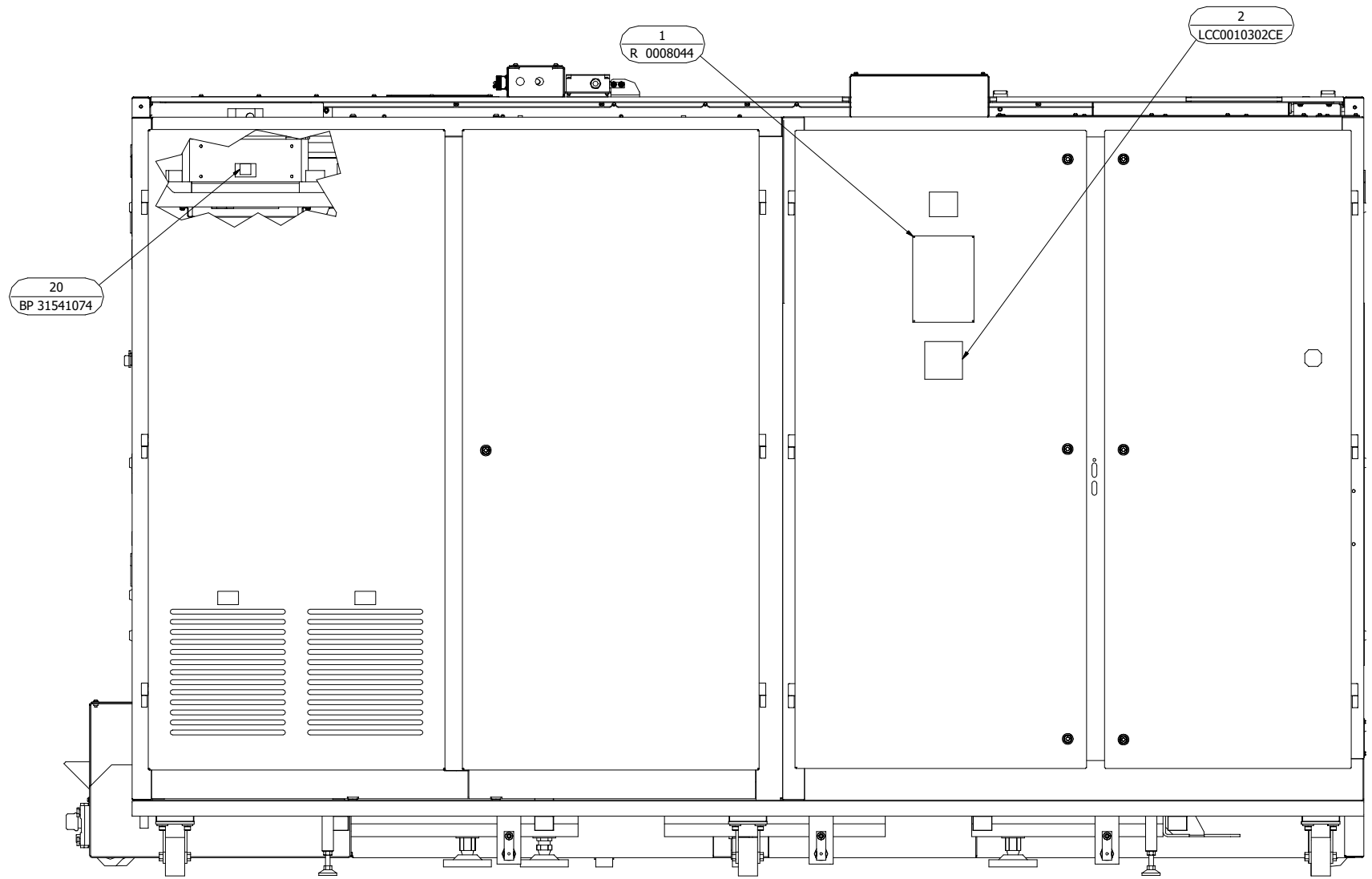
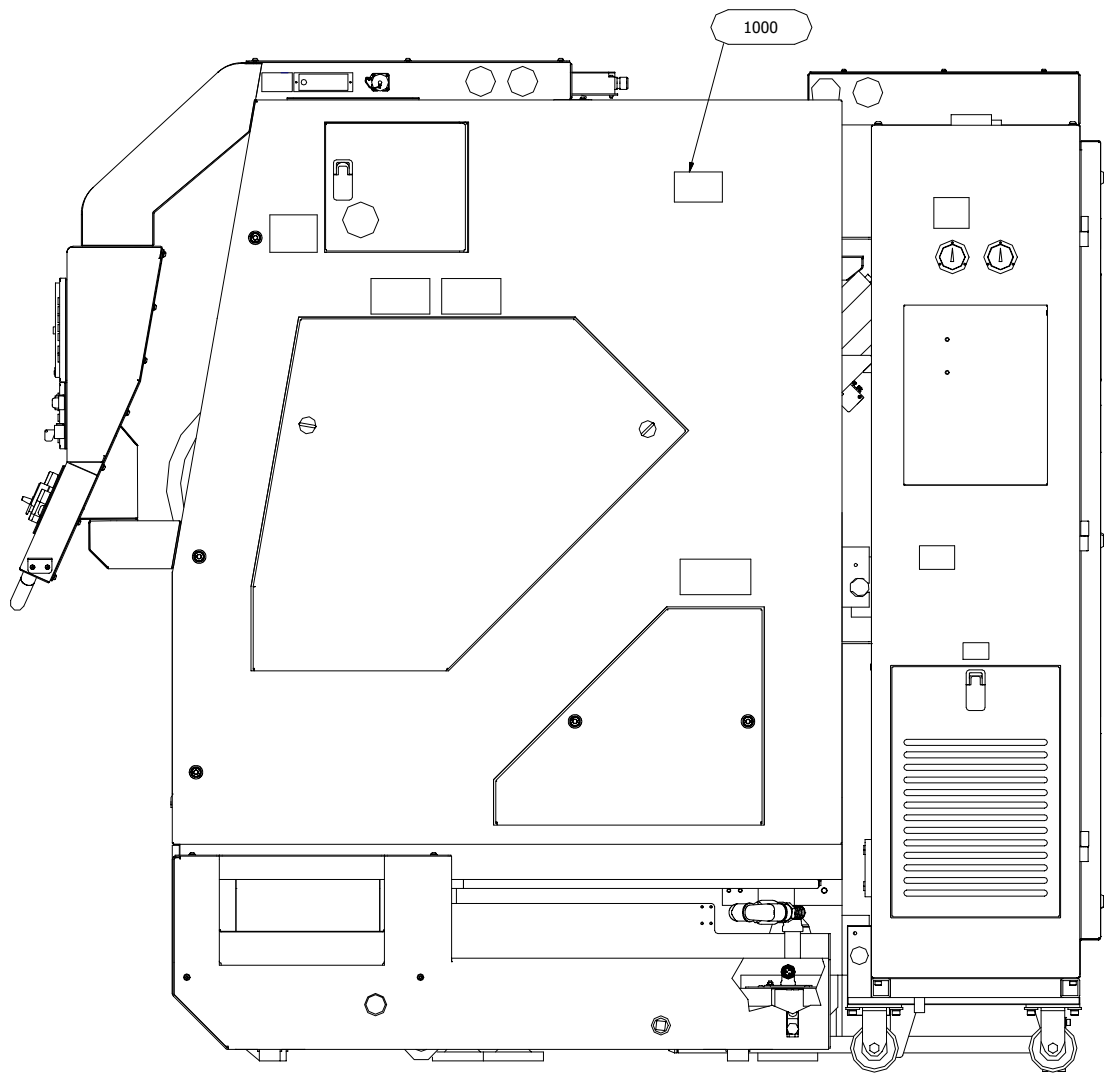
**Base Sub-Assembly, Machine without Tailstock or Sub-Spindle  
(INA Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	MW 0193810	8	WASHER, LOCK, M8
2	MS 0103822	8	SCREW, SHC, M8X1.25X40
3	DQA0000262	1	BASE
4	DQ 000026403	1	HEADSTOCK RISER
5	CL 0009454	3	FOOT, FIXED - BASE
6	CLA0009455	4	FOOT, BASE
7	DQ 0008316ZIN	1	LINEAR GUIDEWAYS, Z AXIS
8	DQ 000648103	1	GIB, GUIDE RAIL
9	CS 0008325	1	NUT, LOCK ADJ SCREW
10	HG 0009454	1	FOOT, ADJ -BASE
11	DQ 0000262BLOC	1	BLOCK, WAYCOVER MOUNTING
12	LC 000648101	9	GIB GUIDE RAIL
13	MS 0103518	36	SCREW, SHC, M5X0.8X20
14	MS 0104222	26	SCREW, SHC, M12X1.75X40
15	SG 0007702 A10	4	CONNECTOR, MALE 4MMOD X1/8 BSP
16	CS 000463001	1	DOWEL, TURRET PIVOT
17	MW 0193510	18	WASHER, LOCK, M5
18	CL 0006709	2	PIN, PULL OUT DOWEL
19	MS 0105032	8	SCREW, SHC, M20X2.5X100
20	MS 0104221	4	SCREW, SHC, M12X1.75X35
21	NC 0010884	0.07	THREADLOCKER, LOCTITE 242
22	HG 0010440	0.06	GREASE, ANTI-SIEZE, BLACK MOLY
23	MW 0105010 H	8	WASHER, FLAT, HARD, M20

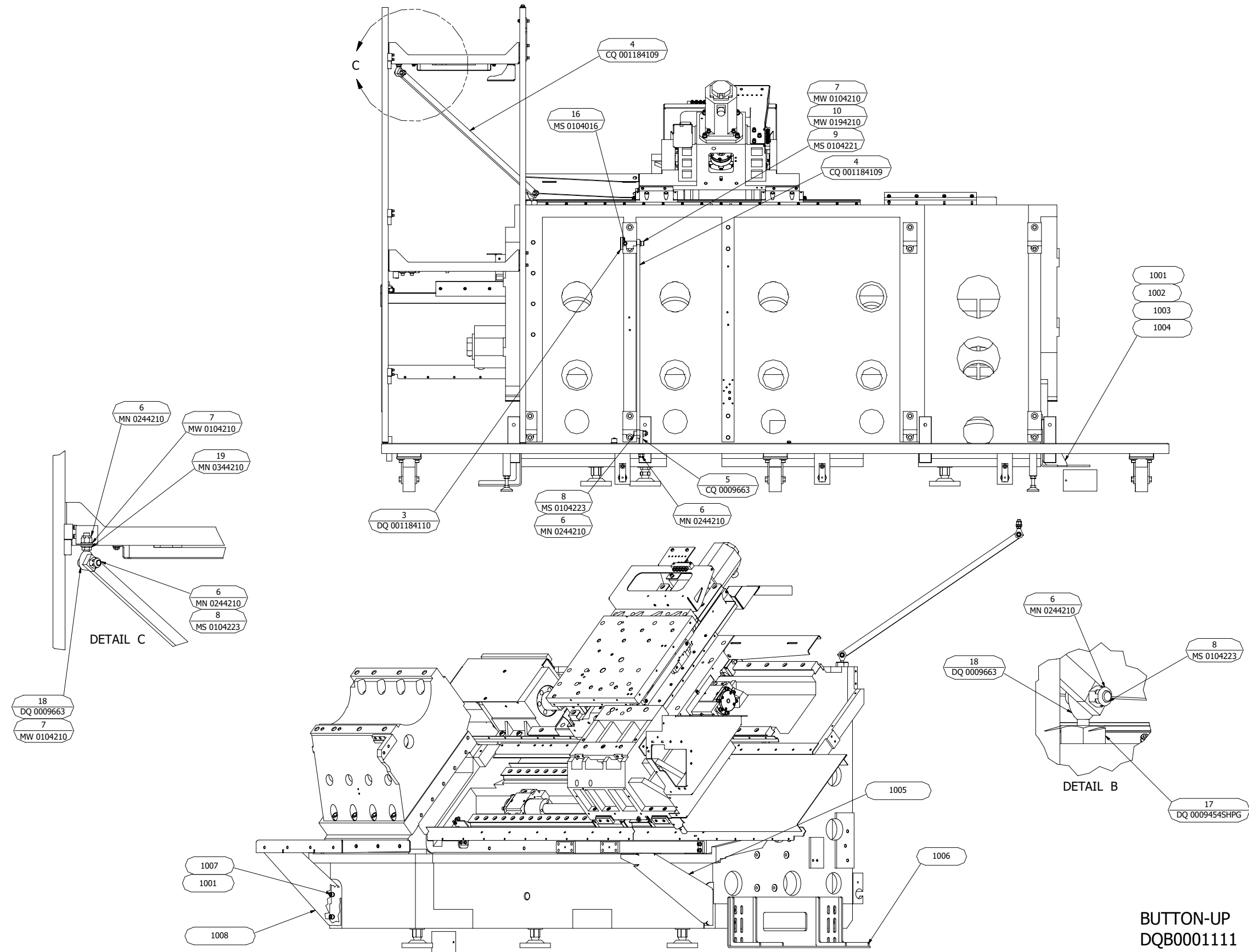




BUTTON-UP  
DQB0001111



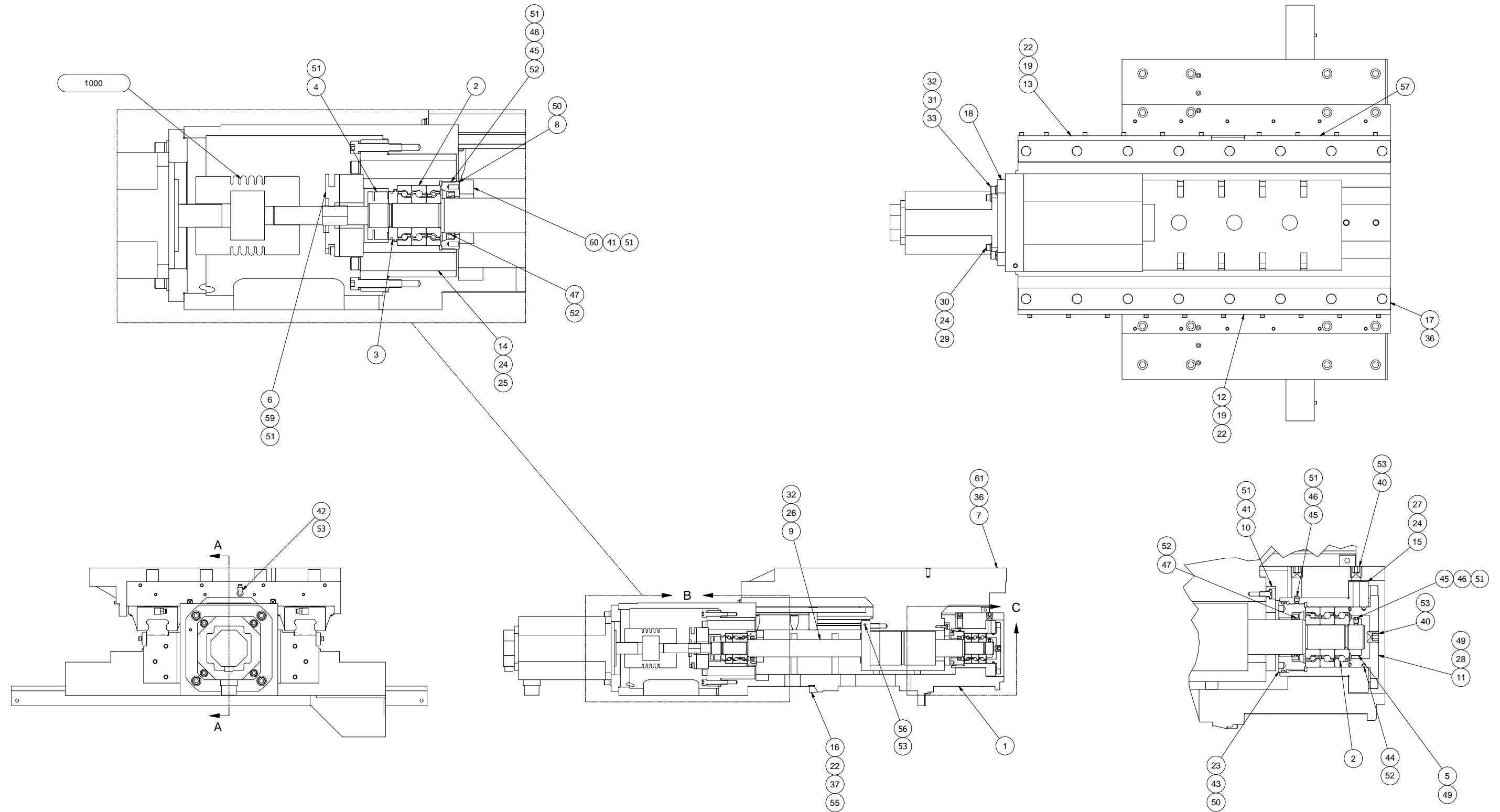
BUTTON-UP  
DQB0001111



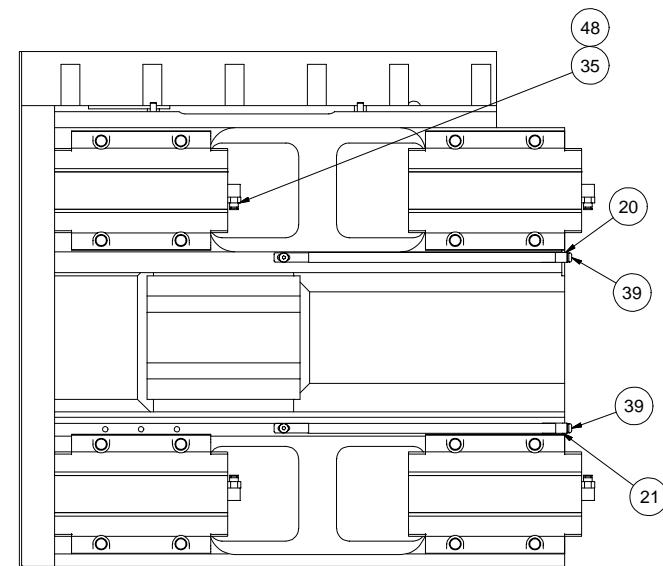
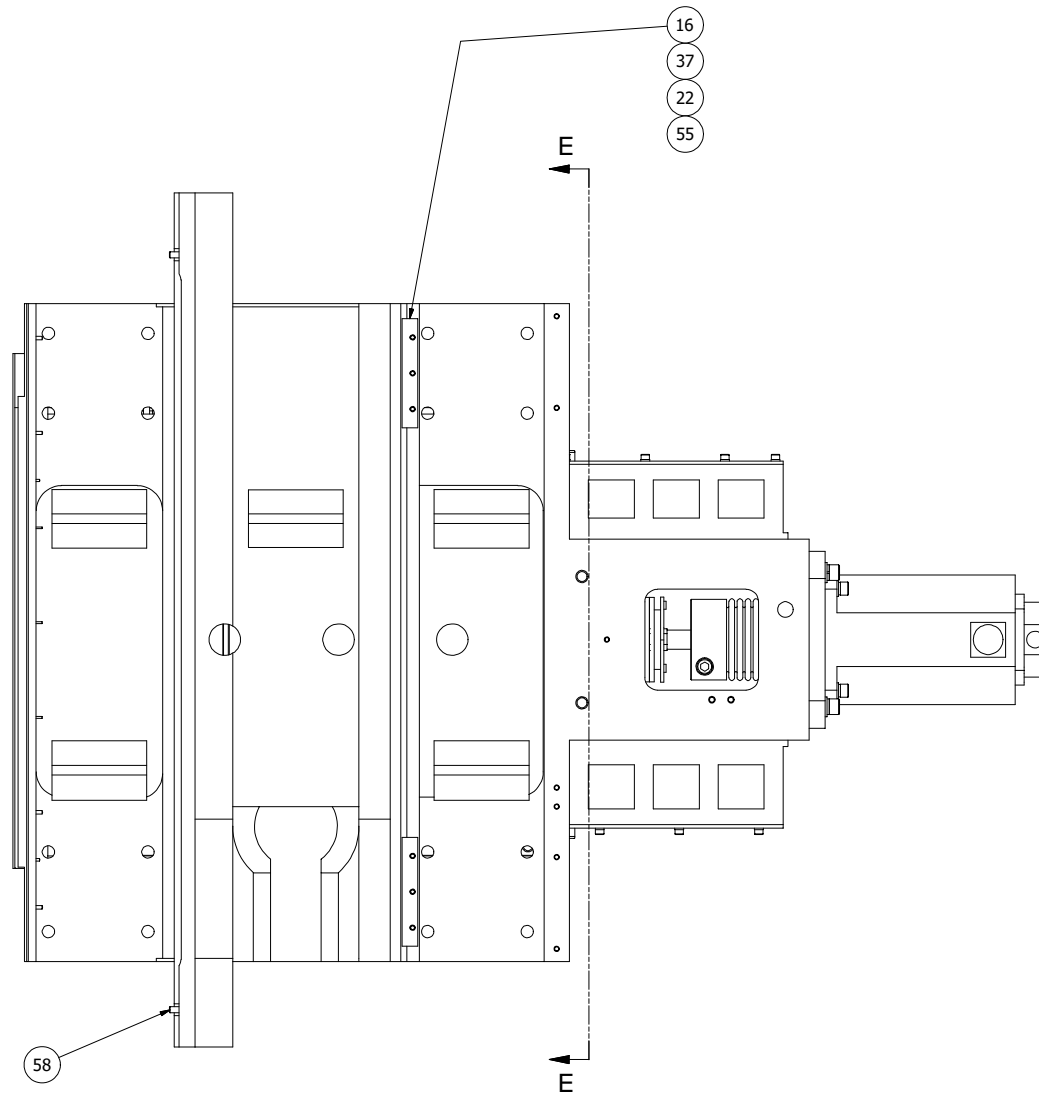
ITEM	PART NUMBER	QTY	DESCRIPTION
1	R 0008044	4	PIN, ESCUTCHEON
2	LCC0010302CE	2	TAG, ELECTRICAL HAZARD
3	DQ 001184110	1	PLUG, SHIPPING
4	CQ 001184109	2	BRACE, SHIPPING
5	CQ 0009663	1	BOLT, LIFTING M12
6	MN 0244210	5	NUT, M12 NYLOK
7	MW 0104210	4	WASHER, FLAT, M12
8	MS 0104223	3	SCREW, SHC, M12X1.75X45MM
9	MS 0104221	1	SCREW, SHC, M12X1.75X35MM
10	MW 0194210	1	WASHER, LOCK, M12
16	MS 0104016	1	SCREW, SHC, M10X1.5X12MM
17	DQ 0009454SHPG	1	BOLT, BASE SHIPPING
18	DQ 0009663	2	ROD END, M12 BEM, BN34
19	MN 0344210	1	NUT, FLANGE M12
20	BP 31541074	4	PAD, CABLE TIE ADHESIVE BACKED
93	DQ 0000132FLSF	1	BRACKET, FRONT PANEL FORWARD
94	DQ 0000132FLSR	1	BRACKET, FRONT PANEL REAR
95	MW 0193510	3	WASHER, LOCK, M5
96	MW 0103510	3	WASHER, FLAT, M5
98	MS 0104220	1	SCREW, SHC, M12X1.75X30MM
99	MS 0103517	3	SCREW, SHC, M5X0.8X16MM
100	MS 0104020	2	SCREW, SHC, M10X1.5X30MM
101	MW 0104010	2	WASHER, FLAT, M10
102	MW 0194010	2	WASHER, LOCK, M10
103	MS 0103820	1	SCREW, SHC, M8X1.25X30MM
104	5 0001893	1	WASHER
105	MW 0193810	1	WASHER, LOCK, M8
106	FGA001036609	2	TAG, LIFTING POINT
107	FGA001036627	1	TAG, AIR HOSE CONNECTION
108	DQA0010302SC	1	TAG, SHIPPING CONTAINER CAUTION
1000	BP 11012327	-	DECAL, FLAG OF THE USA
1001	MW 0194210	-	WASHER, LOCK, M12
1002	MS 0104221	-	SCREW, SHC, M12X1.75X35MM
1003	MW 0104210 H	-	WASHER, FLAT, M12, HARDENED
1004	DQ 000013201	-	BRACKET, SHIPPING - LEFT
1005	DQ 0000132SGU	-	BRACKET, GUARD SUPPORT, SHIPPING
1006	CQ 0000132	-	BRACKET, SHIPPING - RIGHT
1007	MS 0104218	-	SCREW, SHC, M12X1.75X20MM
1008	DQ 0000132SGUF	-	BRACKET, GUARD SUPPORT, SHIPPING

Refer to Maintenance Manual (M-506) for machine tag information.

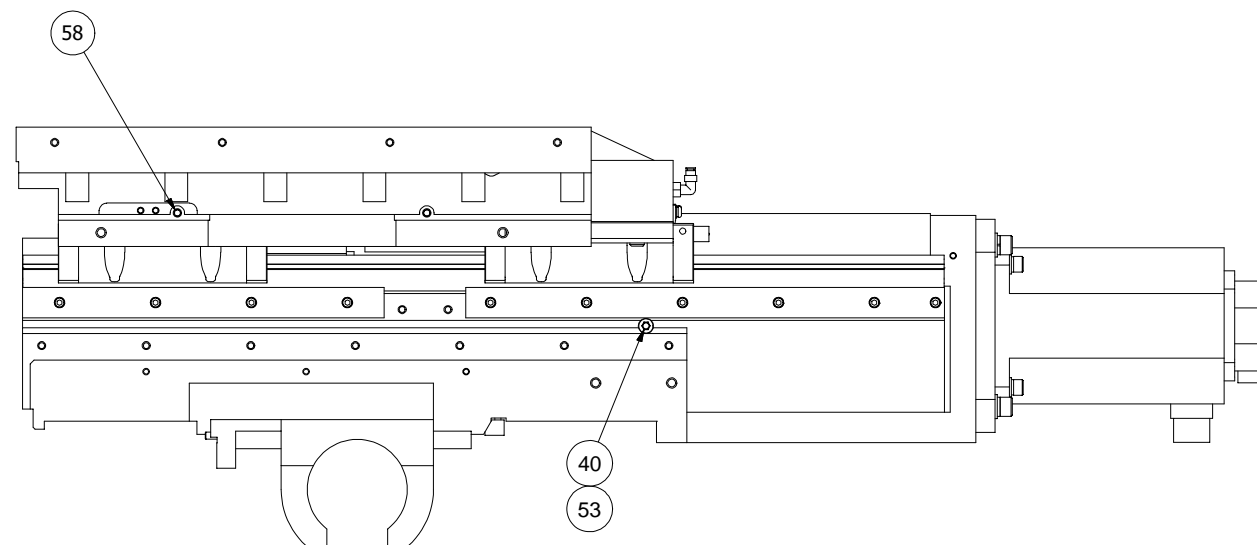
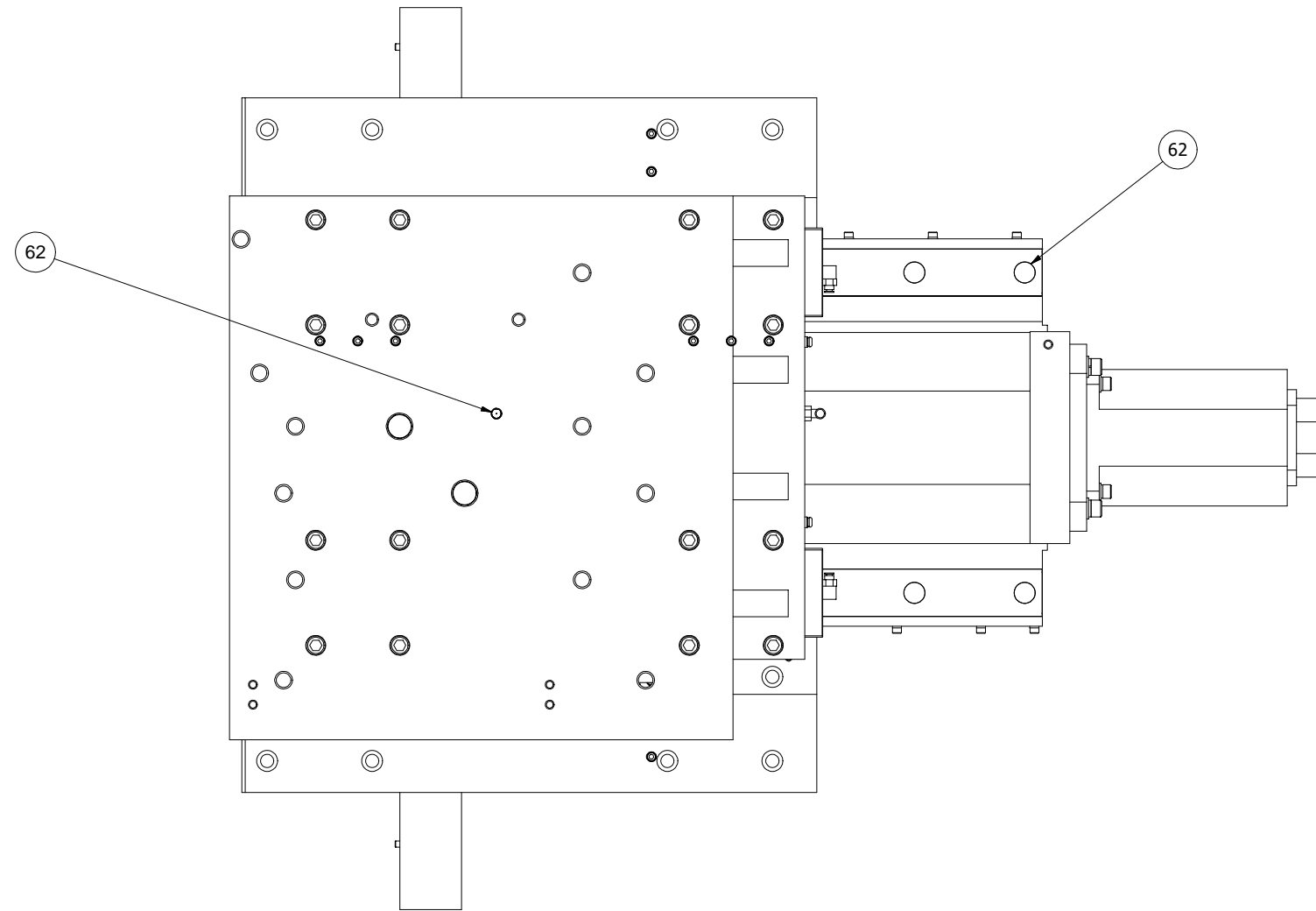
**Carriage and Cross Slide Assembly  
(THK Linear Guides)**



**CARRIAGE AND CROSS SLIDE ASSEMBLY  
(THK LINEAR GUIDES)  
DQ 0006730**



CARRIAGE AND CROSS SLIDE ASSEMBLY  
(THK LINEAR GUIDES)  
DQ 0006730



CARRIAGE AND CROSS SLIDE ASSEMBLY  
(THK LINEAR GUIDES)  
DQ 0006730

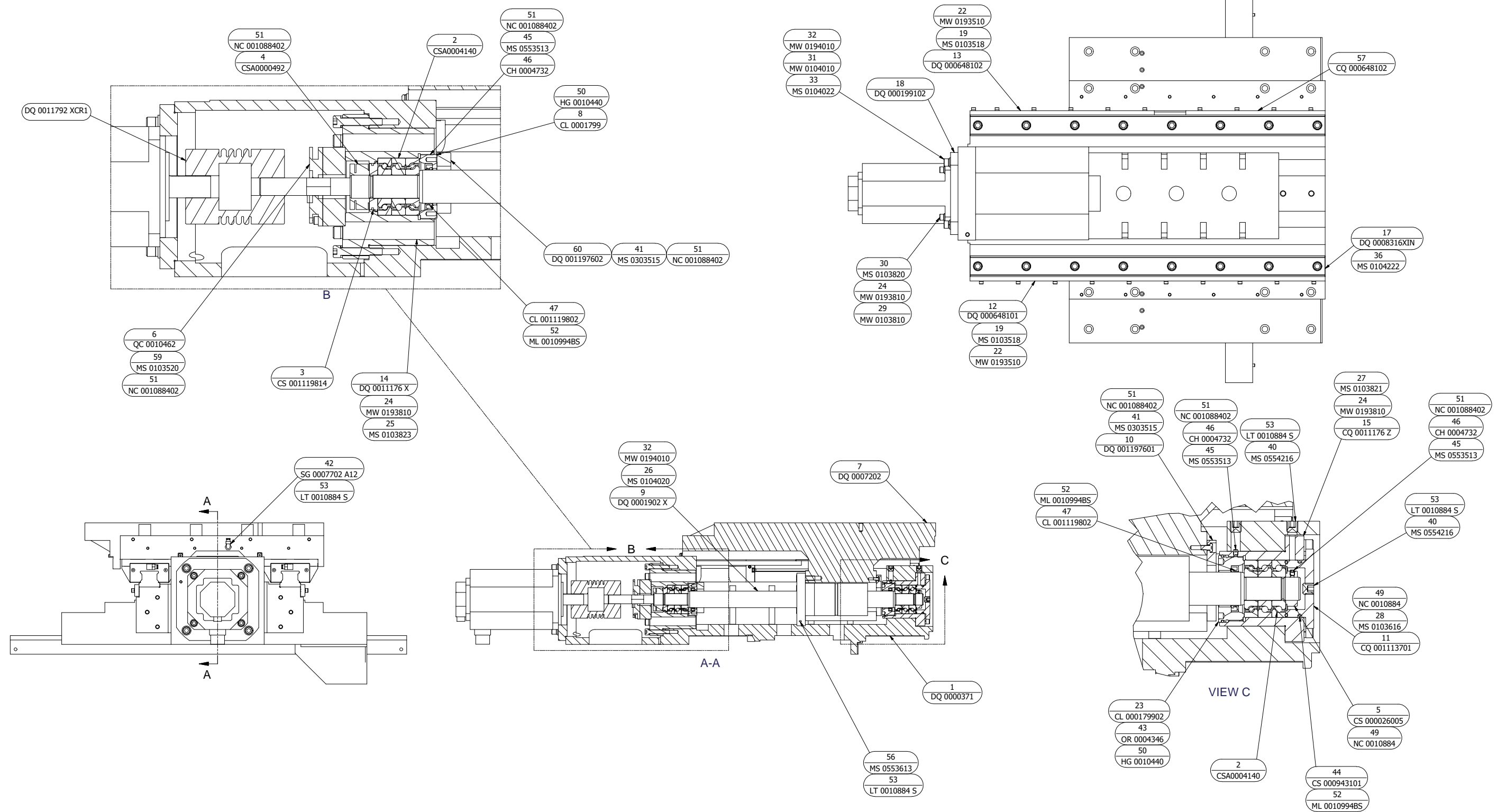
**Carriage and Cross Slide Assembly  
(THK Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000371	1	CARRIAGE
2	CSA0004140	6	BEARING, BALL
3	CS 001119814	1	SEAL, LABYRINTH
4	CSA0000492	1	NUT, ADJUSTABLE SPIETH
5	CS 000026005	1	NUT, LOCK
6	QC 0010462	1	BRAKE
7	DQ 0007202	1	CROSS SLIDE
8	CL 0001799	1	NUT, BEARING
9	DQ 0001902 X	1	BALLSCREW, X-AXIS
10	DQ 001197601	1	BUMPER
11	CQ 001113701	1	RETAINER, BEARING
12	DQ 000648101	1	GIB, GUIDE RAIL
13	DQ 000648102	1	GIB, GUIDE RAIL
14	DQ 0011176 X	1	HOUSING, BEARING
15	CQ 0011176 Z	1	HOUSING, BEARING
16	TT 0006481	4	GIB, LINEAR GUIDE
17	DQ 0008316 X	1	LINEAR GUIDEWAYS, X-AXIS
18	DQ 000199102	1	PLATE, MOTOR MOUNT
19	MS 0103518	20	SCREW, SHC, M5X0.8X20
20	CQ 0001990TUX	1	TUBE, X-AXIS GREASE
21	CQ 0001990TUX2	1	TUBE, X-AXIS GREASE
22	MW 0193510	32	WASHER, LOCK, M5
23	CL 000179902	1	NUT, BEARING
24	MW 0193810	20	WASHER, LOCK, M8
25	MS 0103823	8	SCREW, SHC, M8X1.25X45
26	MS 0104020	5	SCREW, SHC, M10X1.5X30
27	MS 0103821	8	SCREW, SHC, M8X1.25X35
28	MS 0103616	4	SCREW, SHC, M6X1X12
29	MW 0103810	4	WASHER, FLAT, M8
30	MS 0103820	4	SCREW, SHC, M8X1.25X30
31	MW 0104010	4	WASHER, FLAT, M10
32	MW 0194010	9	WASHER, LOCK, M10
33	MS 0104022	4	SCREW, SHC, M10X1.5X40MM
35	SG 0007702 A10	4	CONNECTOR MALE 4MMOD X1/8 BSP
36	MS 0104222	32	SCREW, SHC, M12X1.75X40MM
37	MS 0103519	12	SCREW, SHC, M5X0.8X25MM
39	MS 0303516SA	4	SCREW, BH M5X.8X12 ASSEMBLY
40	MS 0554216	4	SCREW, M12X1.75X12 SOC SET CUP PT

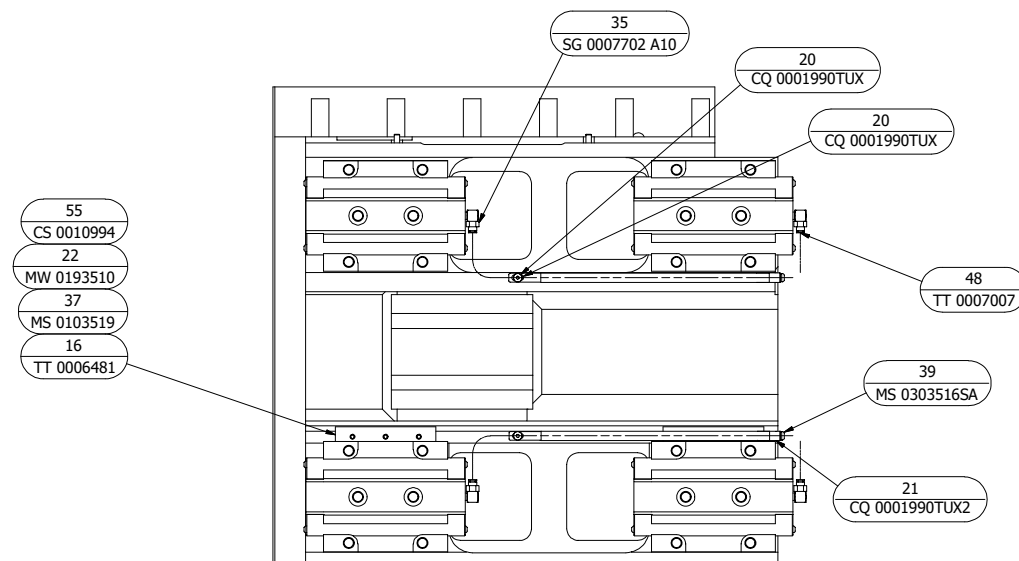
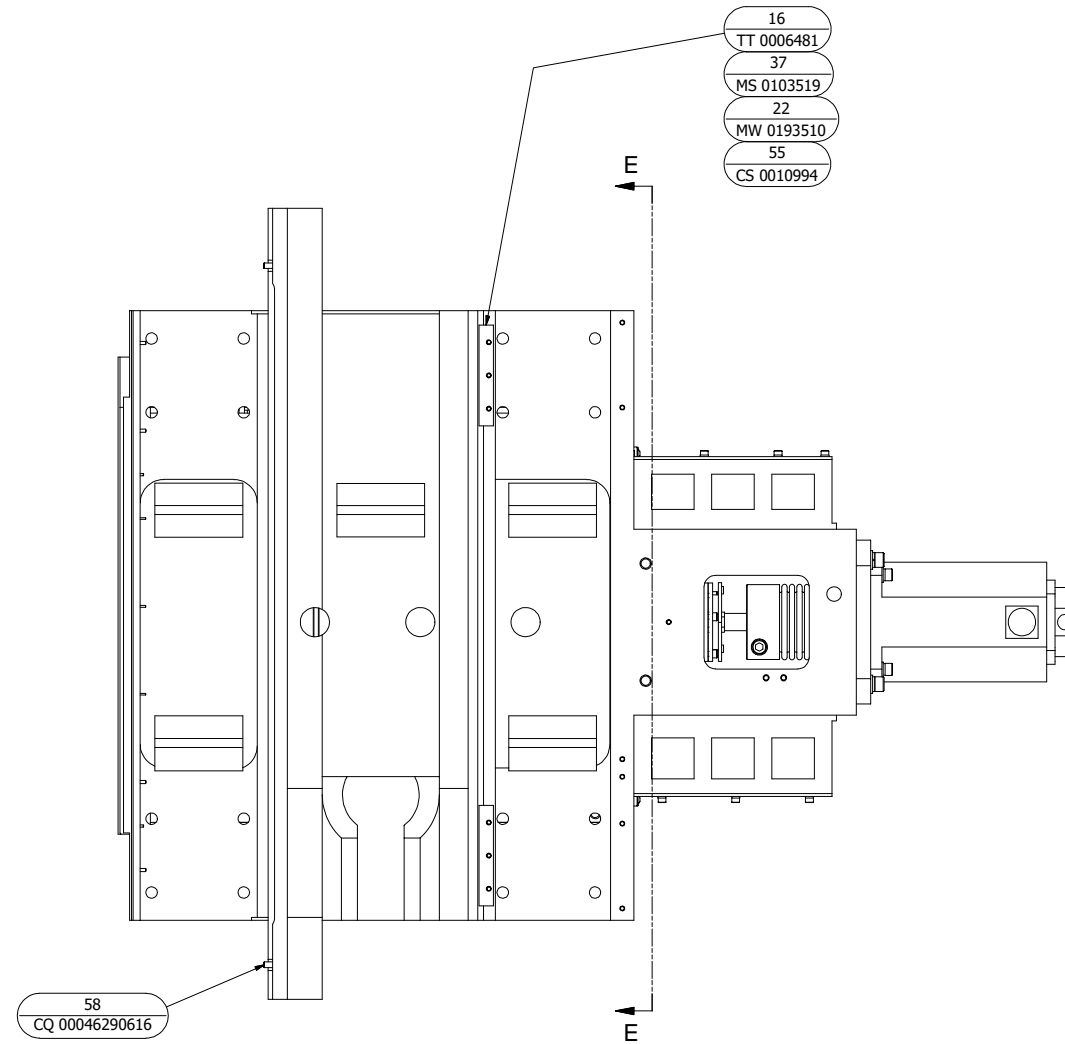
ITEM	PART NUMBER	QTY	DESCRIPTION
41	MS 0303515	5	SCREW, BTHD M5X0.8X10MM
42	SG 0007702 A12	1	ELBOW, MALE SWIVEL 4 MM X 1/8BS
43	OR 0004346	1	O-RING
44	CS 000943101	2	O-RING
45	MS 0553513	3	SCREW, SET, CUP, M5X.8X6
46	CH 0004732	3	PLUG, BRASS
47	CL 001119802	2	SEAL, LIP
48	TT 0007007	12 ft	TUBING, PLASTIC
49	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
50	HG 0010440	0.2	GREASE, ANTI-SIEZE BLACK MOLLY
51	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
52	ML 0010994BS	0.1	GREASE, BALLSCREW SEAL
53	LT 0010884 S	0.1	SEALANT, PIPE
54	S 001070009	1	LEE PLUG
55	CS 0010994	0.05	GREASE
56	MS 0553613	1	SCREW, SET, CUP, M6X1X6
57	CQ 000648102	1	GIB, GUIDE RAIL
58	CQ 00046290616	4	PIN, DOWEL M6X16
59	MS 0103520	3	SCREW, SHC, M5X0.8X30MM
60	DQ 001197602	1	STOP, Z-AXIS BALLSCREW
61	MW 0194210	16	WASHER, LOCK, M12
62	DQ 0008316P	16	PLUG, LINEAR GUIDE
1000	DQ 0011792 XCR1	1	COUPLING, X AXIS



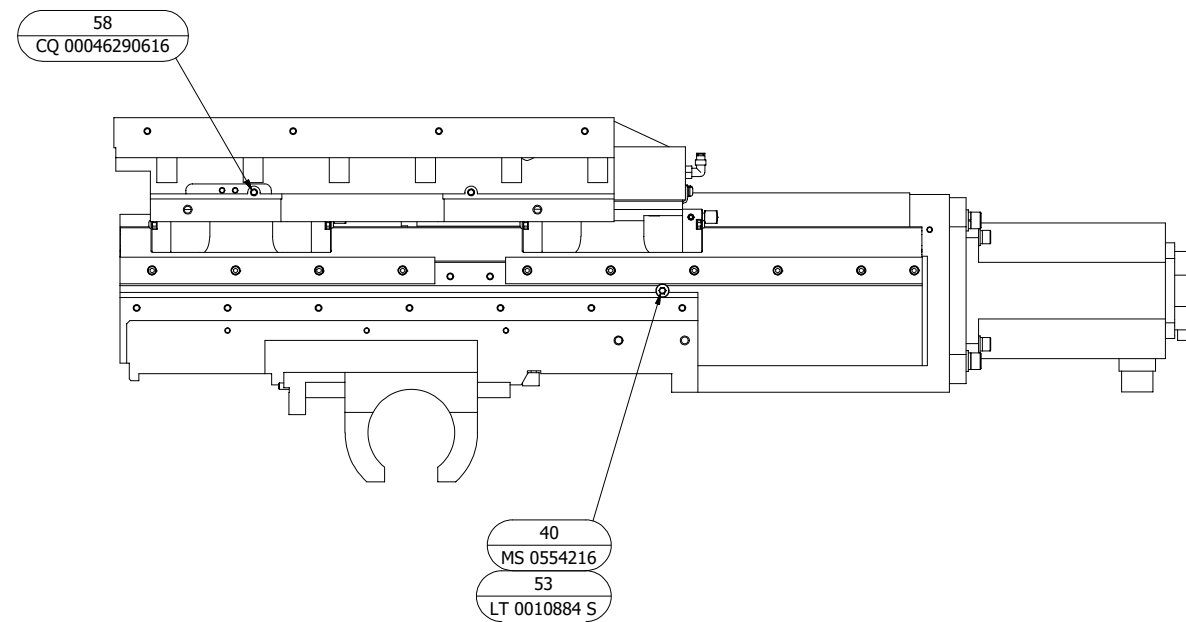
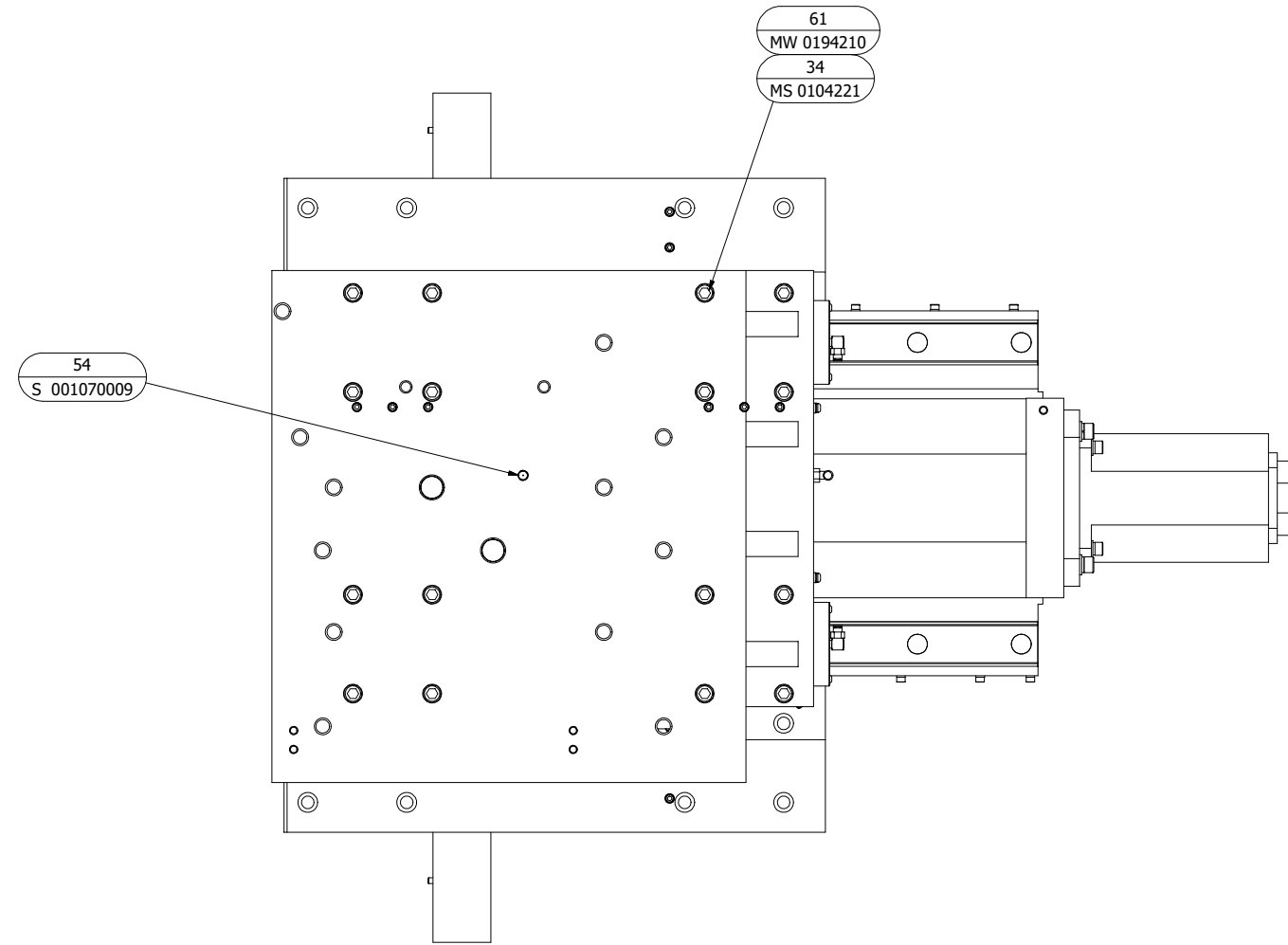
**Carriage and Cross Slide Assembly  
(INA Linear Guides)**



**CARRIAGE AND CROSS SLIDE ASSEMBLY  
(INA LINEAR GUIDES)  
DQ 0006730S**



CARRIAGE AND CROSS SLIDE ASSEMBLY  
(INA LINEAR GUIDES)  
DQ 0006730S

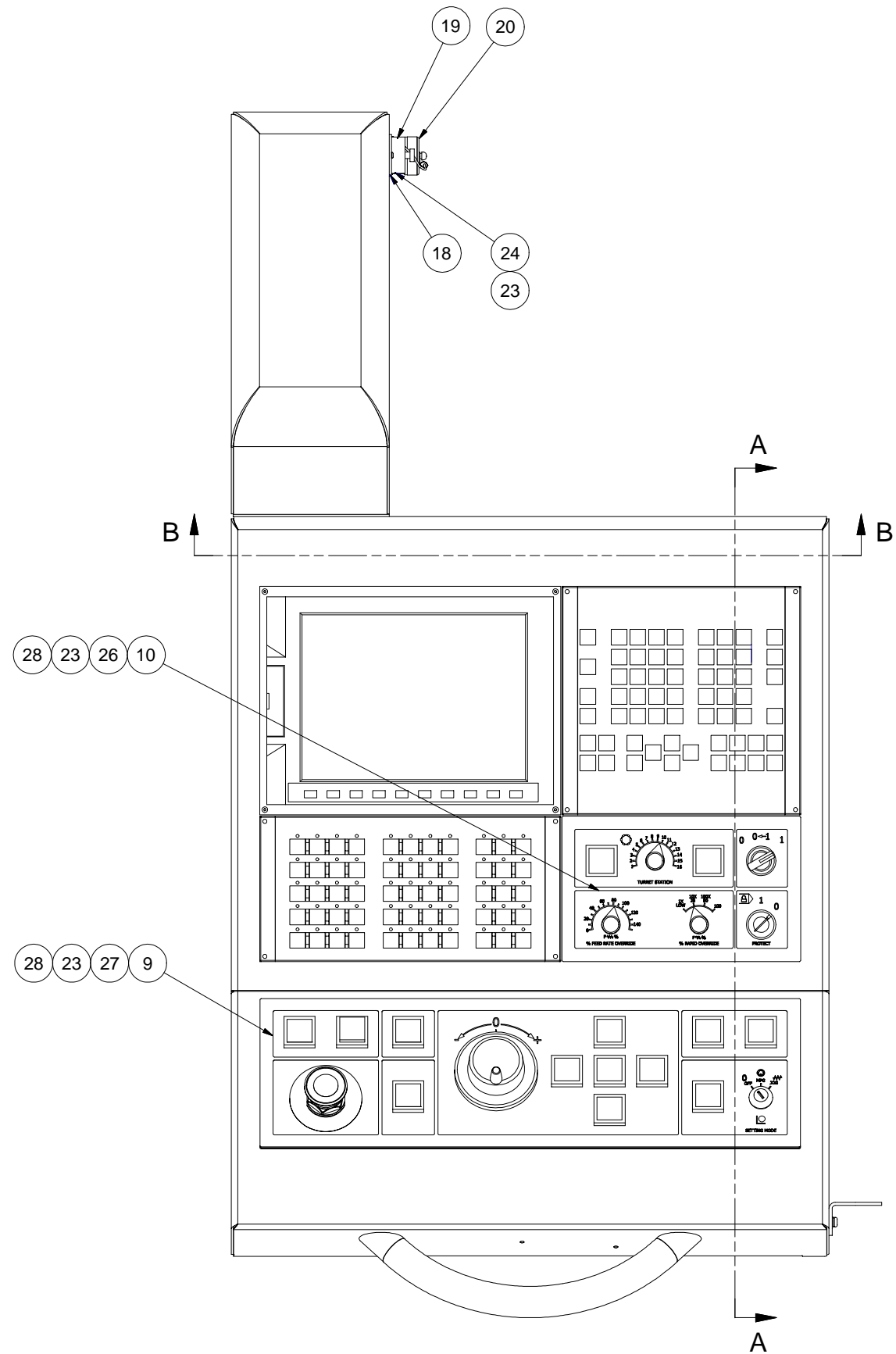


CARRIAGE AND CROSS SLIDE ASSEMBLY  
(INA LINEAR GUIDES)  
DQ 0006730S

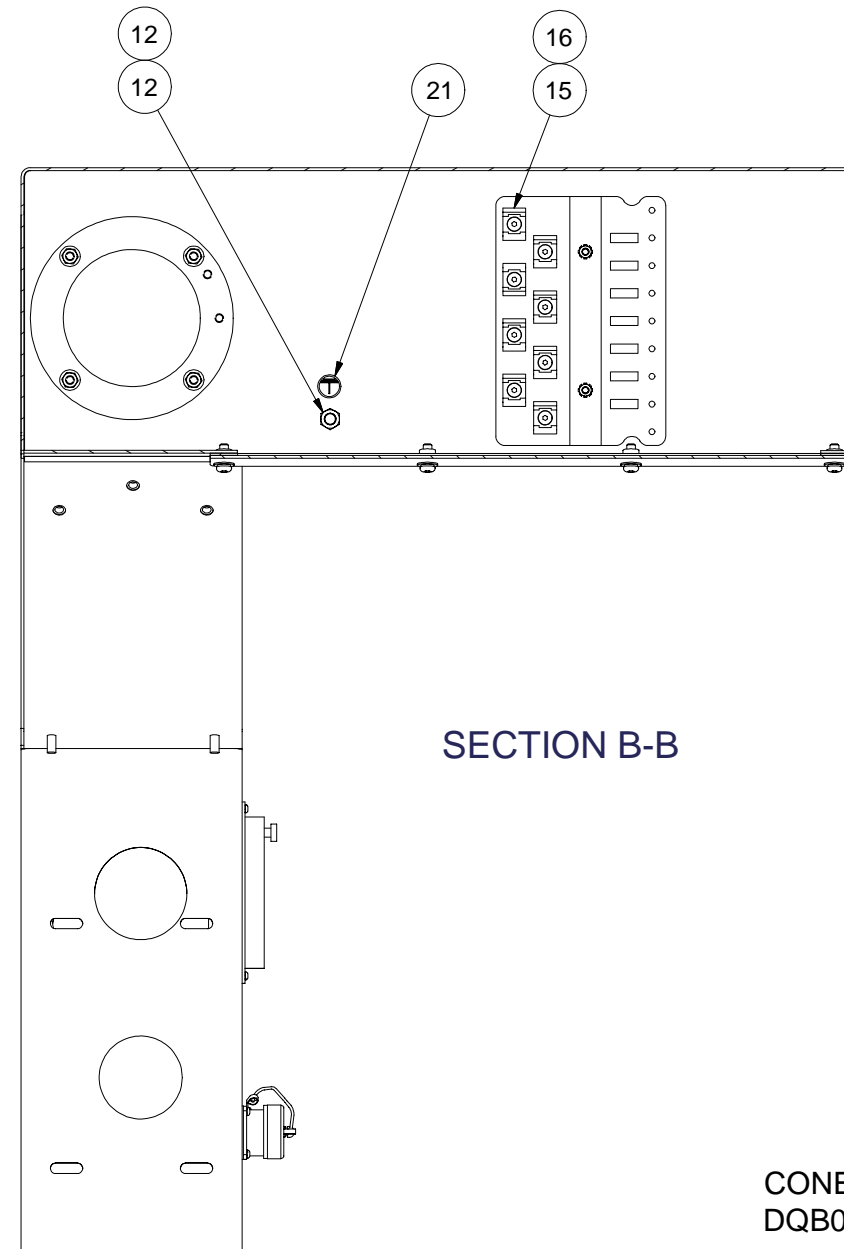
**Carriage and Cross Slide Assembly  
(INA Linear Guides)**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000371	1	CARRIAGE
2	CSA0004140	6	BEARING, BALL
3	CS 001119814	1	SEAL, LABYRINTH
4	CSA0000492	1	NUT, ADJUSTABLE SPIETH
5	CS 000026005	1	NUT, LOCK
6	QC 0010462	1	BRAKE
7	DQ 0007202	1	CROSS SLIDE
8	CL 0001799	1	NUT, BEARING
9	DQ 0001902 X	1	BALLSCREW, X-AXIS
10	DQ 001197601	1	BUMPER
11	CQ 001113701	1	RETAINER, BEARING
12	DQ 000648101	1	GIB, GUIDE RAIL
13	DQ 000648102	1	GIB, GUIDE RAIL
14	DQ 0011176 X	1	HOUSING, BEARING
15	CQ 0011176 Z	1	HOUSING, BEARING
16	TT 0006481	4	GIB, LINEAR GUIDE
17	DQ 0008316XIN	1	LINEAR GUIDEWAYS, X AXIS
18	DQ 000199102	1	PLATE, MOTOR MOUNT
19	MS 0103518	20	SCREW, SHC, M5X0.8X20
20	CQ 0001990TUX	1	TUBE, X-AXIS GREASE
21	CQ 0001990TUX2	1	TUBE, X-AXIS GREASE
22	MW 0193510	32	WASHER, LOCK, M5
23	CL 000179902	1	NUT, BEARING
24	MW 0193810	20	WASHER, LOCK, M8
25	MS 0103823	8	SCREW, SHC, M8X1.25X45
26	MS 0104020	5	SCREW, SHC, M10X1.5X30
27	MS 0103821	8	SCREW, SHC, M8X1.25X35
28	MS 0103616	4	SCREW, SHC, M6X1X12
29	MW 0103810	4	WASHER, FLAT, M8
30	MS 0103820	4	SCREW, SHC, M8X1.25X30
31	MW 0104010	4	WASHER, FLAT, M10
32	MW 0194010	9	WASHER, LOCK, M10
33	MS 0104022	4	SCREW, SHC, M10X1.5X40
34	MS 0104221	16	SCREW, SHC, M12X1.75X35
35	SG 0007702 A10	4	CONNECTOR, MALE 4MMOD X1/8 BSP
36	MS 0104222	16	SCREW, SHC, M12X1.75X40
37	MS 0103519	12	SCREW, SHC, M5X0.8X25
39	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
40	MS 0554216	4	SCREW, SOC SET CUP PT M12X1.75X12

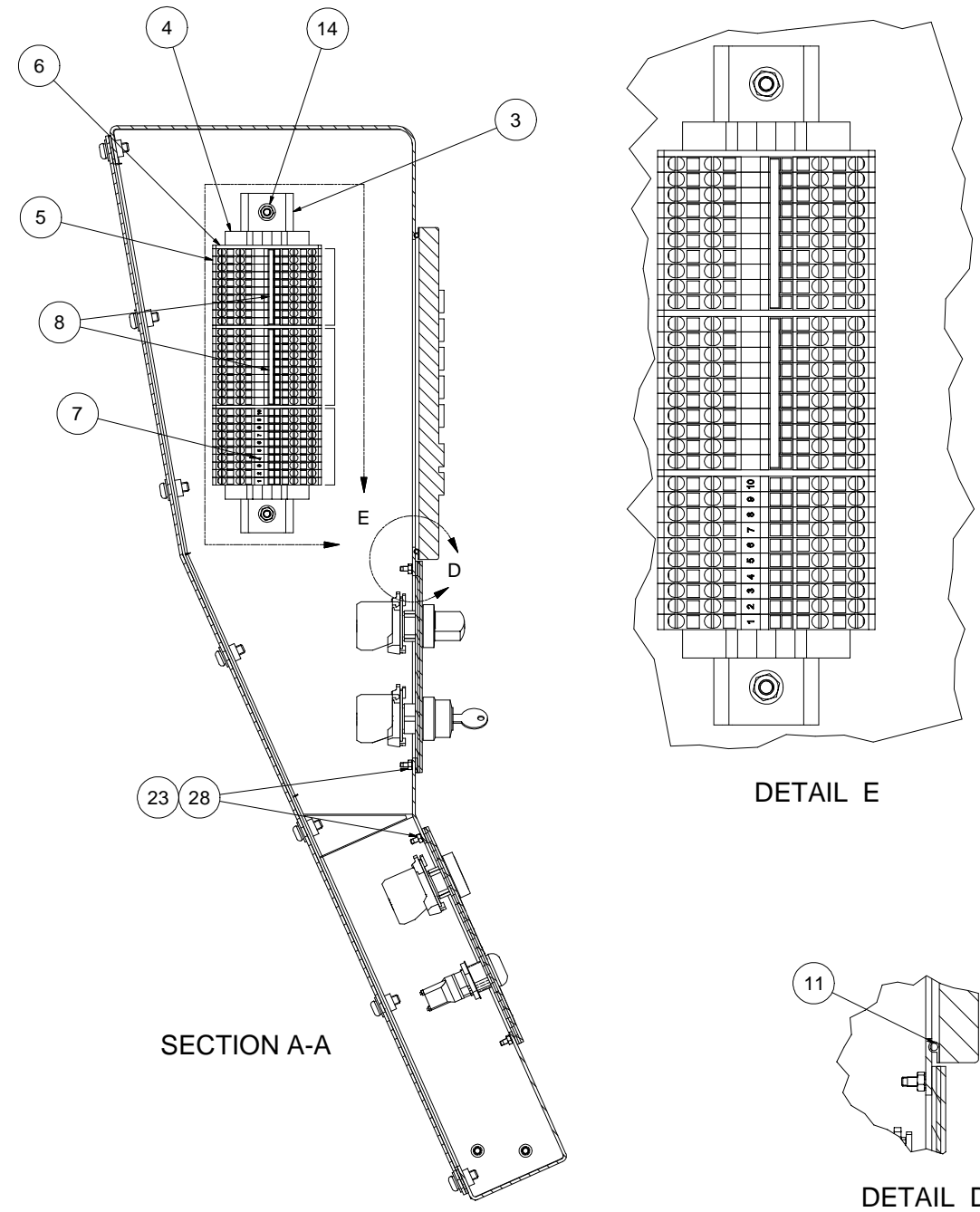
ITEM	PART NUMBER	QTY	DESCRIPTION
41	MS 0303515	5	SCREW, BTHD M5X0.8X10
42	SG 0007702 A12	1	ELBOW, MALE SWIVEL 4 MM X 1/8BS
43	OR 0004346	1	O-RING
44	CS 000943101	2	O-RING
45	MS 0553513	3	SCREW, SET, CUP, M5X.8X6
46	CH 0004732	3	PLUG, BRASS
47	CL 001119802	2	SEAL, LIP
48	TT 0007007	12 ft	TUBING, PLASTIC
49	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
50	HG 0010440	0.2	GREASE, ANTI-SIEZE, BLACK MOLLY
51	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
52	ML 0010994BS	0.1	GREASE, BALLSCREW SEAL
53	LT 0010884 S	0.1	SEALANT, PIPE
54	S 001070009	1	LEE PLUG
55	CS 0010994	0.05	GREASE
56	MS 0553613	1	SCREW, SET, CUP, M6X1X6
57	CQ 000648102	1	GIB, GUIDE RAIL
58	CQ 00046290616	4	PIN, DOWEL M6X16
59	MS 0103520	3	SCREW, SHC, M5X0.8X30
60	DQ 001197602	1	STOP, Z-AXIS BALLSCREW
61	MW 0194210	16	WASHER, LOCK, M12



CONE ASSEMBLY  
DQB0003279SPT



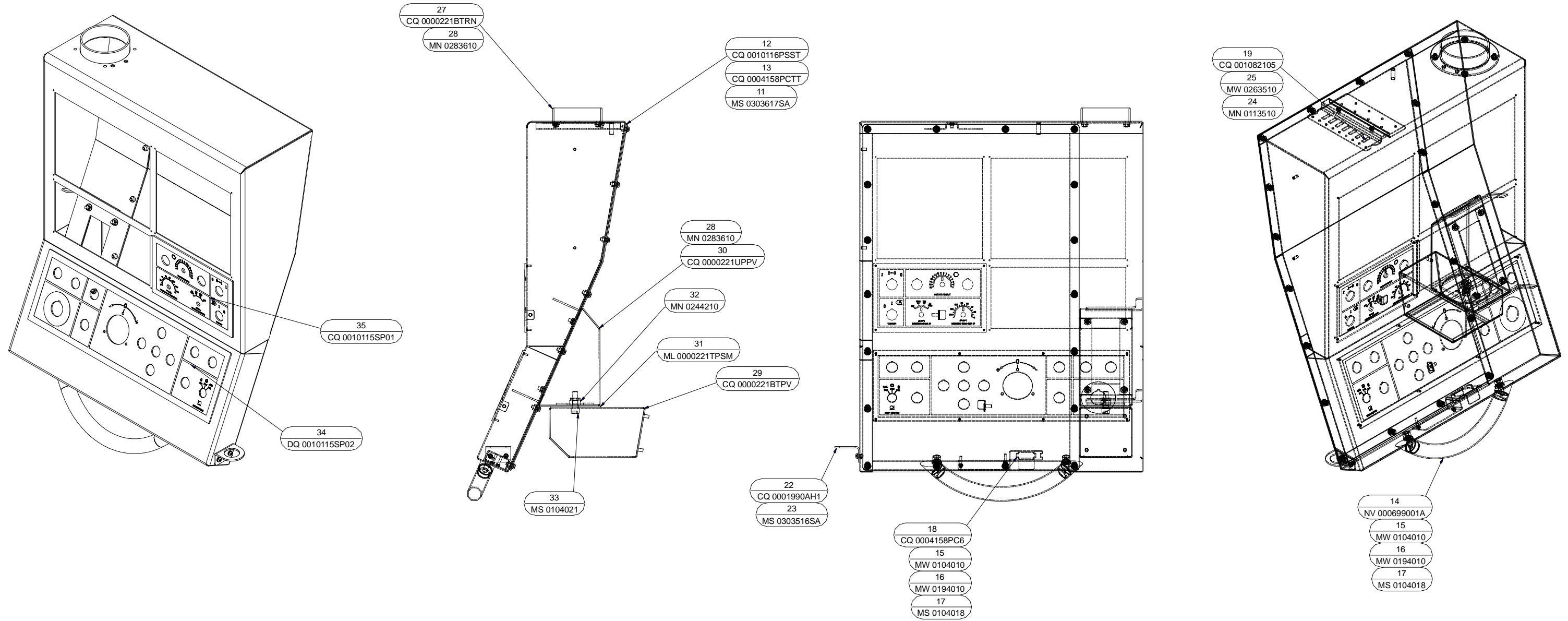
CONE ASSEMBLY  
DQB0003279SPT



CONE ASSEMBLY  
DQB0003279SPT

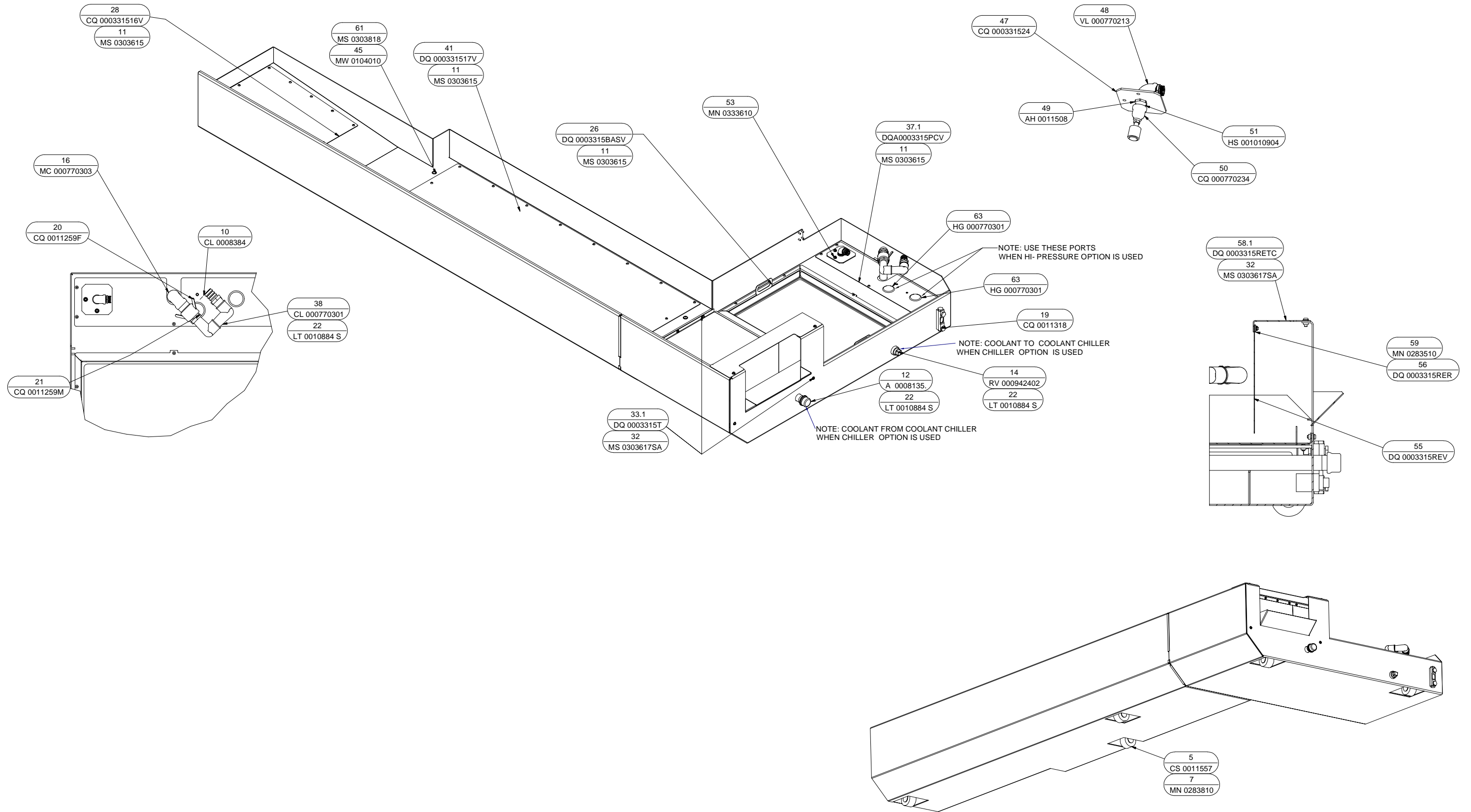
ITEM	PART NUMBER	QTY	DESCRIPTION
3	DQ 0011032D14	1	DIN RAIL, 225MM
4	ML 0011032ES	2	END STOPS
5	ML 0011032BU	30	TERMINAL BLOCK, BLUE
6	ML 0011032EC	3	END COVER
7	ML 00110320110	1	MARKER, 1-10
8	QC 001103204	2	JUMPER, 10 POINT
9	DQC001184401	1	ASSEMBLY, OPERATOR PANEL #1
10	DQA001184402	1	ASSEMBLY, OPERATOR PANEL #2
11	SG 001011603	120	GASKET EMI
12	MN 0113813	2	NUT, M8 X 1.25 BRASS
14	MN 0283510	2	NUT, SERRATED HEX FLANGE, M5X0.8
15	CN 0008104	8	MOUNT, CABLE TIE
16	MS 0303514	8	SCREW, BTHD M5X0.8X8MM
18	LP 0012042RJ4G	1	GASKET, RJ45 CONNECTOR
19	LP 0012042RJ4R	1	CONNECTOR, RJ45 RECEPTACLE
20	LP 0012042RJ4C	1	CAP, RJ45 CONNECTOR
21	ML 0010366 G	1	TAG, GROUND
22	DQ 0002873SPT	1	WIRE PACKAGE, PENDENT
23	MW 0263310	16	WASHER, EXTERNAL STAR M3
24	MS 0303315	8	SCREW, BTHD M3X0.5X10MM
25	F3 000997701	11	LABEL, ID
26	CQ 0010116SP04	1	GASKET
27	CQ 0010116SP02	1	GASKET
28	MN 0113310	12	NUT, HEX, M3X0.5
29	DQ 00030100110	1	CABLE, 2012CBL
30	DQ 00030100120	1	CABLE, 2014CBL
31	DQ 00030100130	1	CABLE, 2018CBL
32	DQ 00030100150	1	CABLE, 2103CBL
33	DQ 00030100200	1	CABLE, 3110CBL



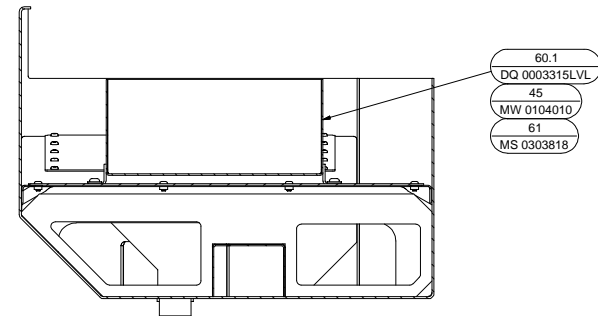


CONTROL HOUSING  
DQ 0004159PCA

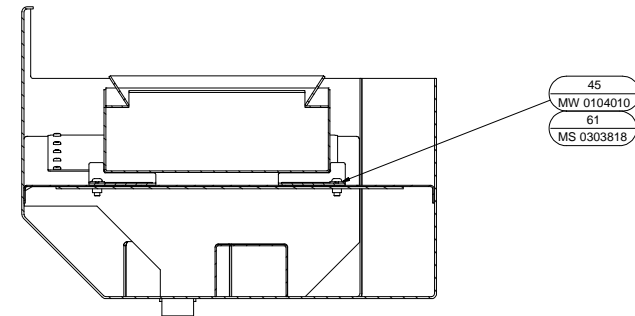
ITEM	PART NUMBER	QTY	DESCRIPTION
11	MS 0303617SA	18	SCREW ASSEMBLY, M6X1X16MM
12	CQ 0010116PSSST	1	GASKET, CONTROL HOUSING
13	CQ 0004158PCTT	1	COVER, CONTROL HOUSING
14	NV 000699001A	1	HANDLE, DOOR
15	MW 0104010	2	WASHER, FLAT, M10
16	MW 0194010	2	WASHER, LOCK, M10
17	MS 0104018	2	SCREW, SHC, M10X1.5X20MM
18	CQ 0004158PC6	1	RETAINER, CONTROL HOUSING
19	CQ 001082105	1	BAR, GROUND
22	CQ 0001990AH1	1	BRACKET, AIR HOSE
23	MS 0303516SA	2	SCREW ASSEMBLY, BH M5X.8X12
24	MN 0113510	2	NUT, HEX, M5X0.8
25	MW 0263510	2	WASHER, EXTERNAL STAR M5
27	CQ 0000221BTRN	1	RING, CONTROL HOUSING BOTTOM
28	MN 0283610	8	NUT, SERRATED HEX FLANGE, M6X1
29	CQ 0000221BTPV	1	PIVOT, BOTTOM CONE
30	CQ 0000221UPPV	1	PIVOT, UPPER CONE
31	ML 0000221TPSM	1	SHIM, CONTROL HOUSING TOP
32	MN 0244210	1	NUT, M12 NYLOK
33	MS 0104021	1	SCREW, SHC, M10X1.5X35MM
34	DQ 0010115SP02	1	PANEL, MPG
35	CQ 0010115SP01	1	PANEL, OPERATOR #2



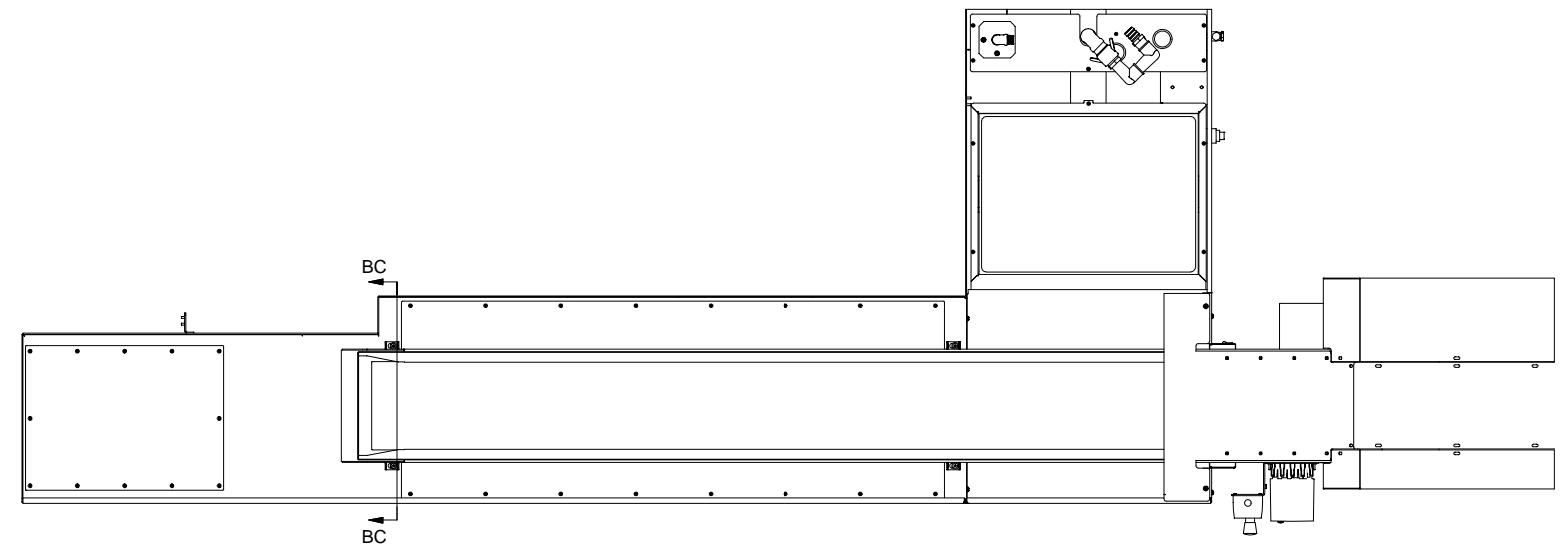
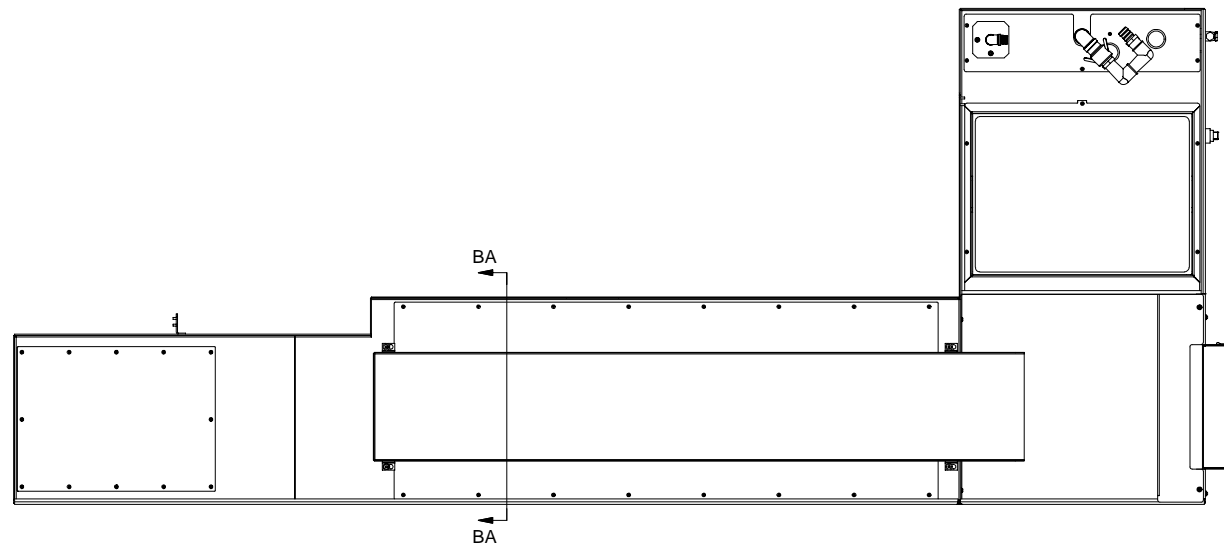
COOLANT TANK ASSEMBLY  
DQC0003315



SECTION BA-BA



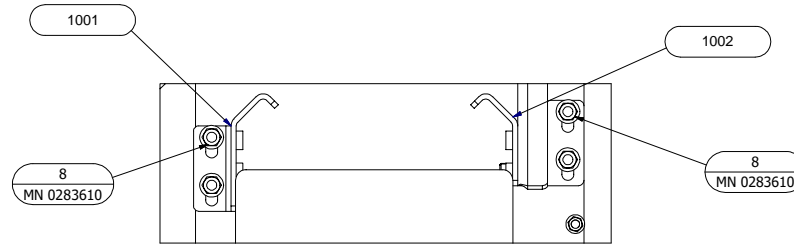
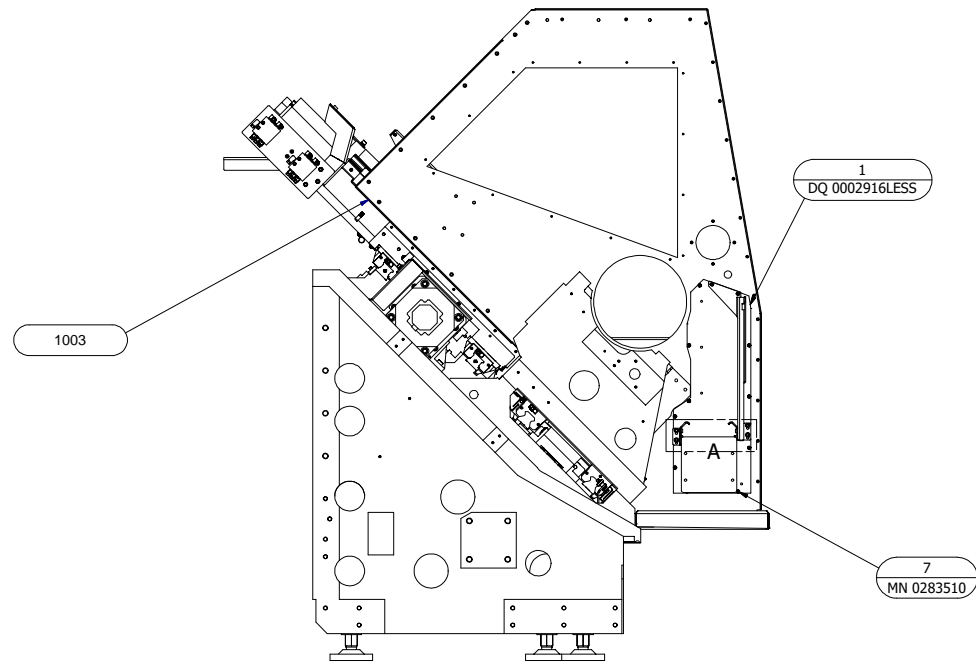
SECTION BC-BC



COOLANT TANK ASSEMBLY  
DQC0003315

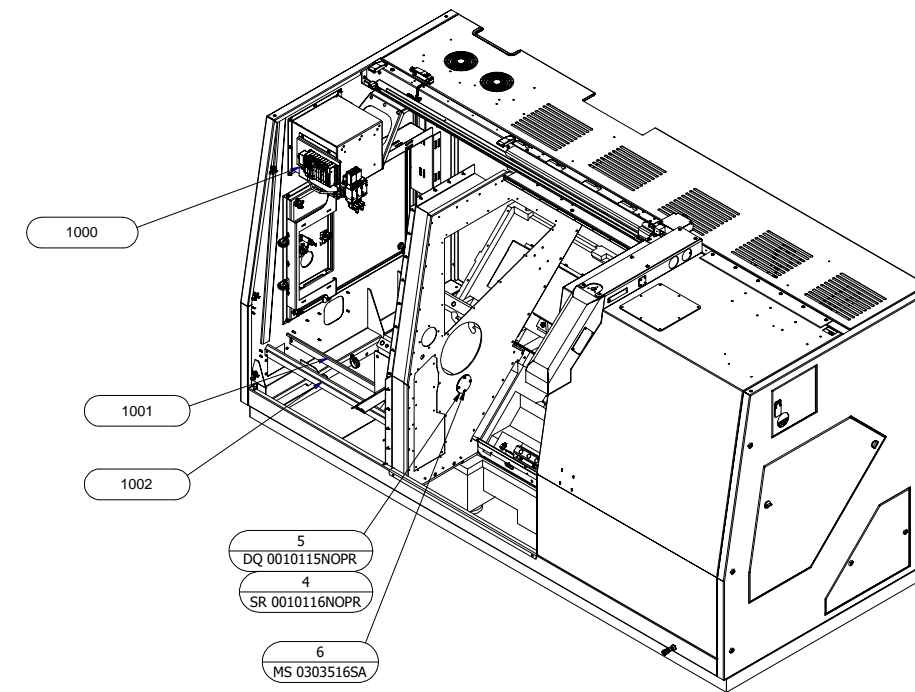
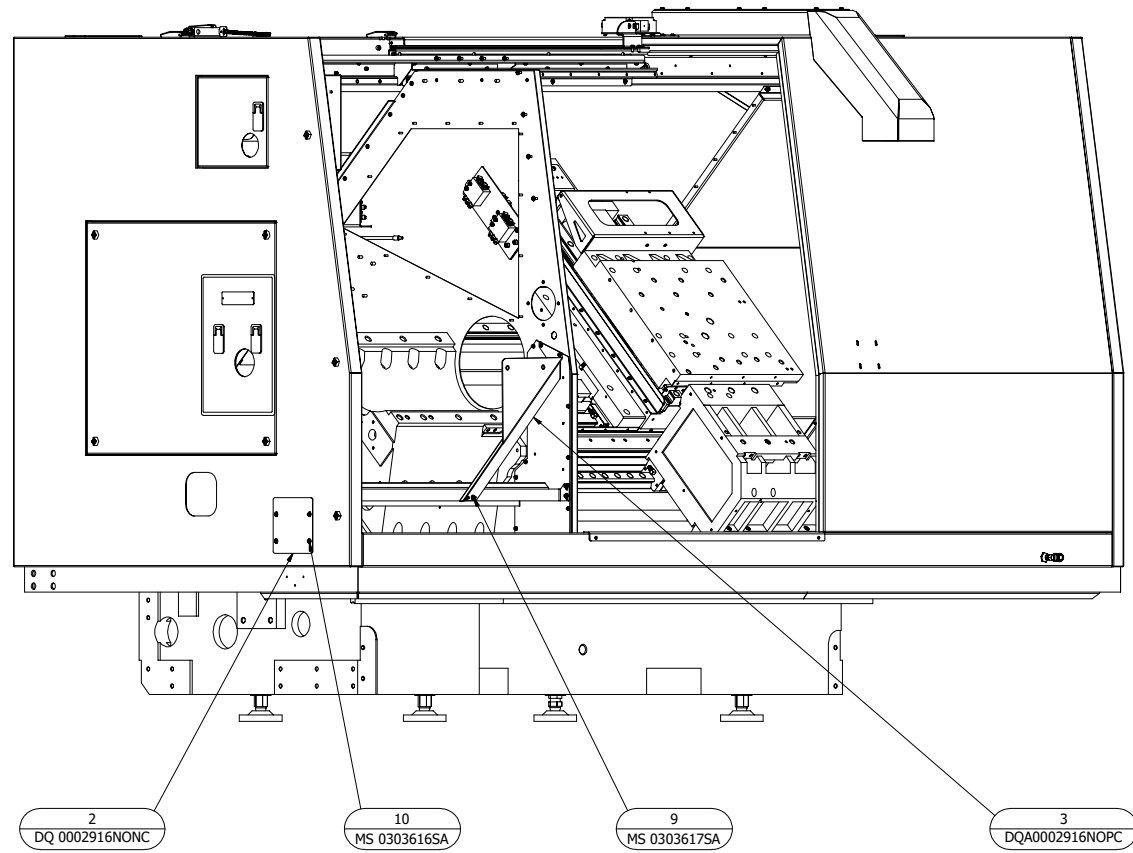
ITEM	PART NUMBER	QTY	DESCRIPTION
5	CS 0011557	5	CASTER, SWIVEL
7	MN 0283810	20	NUT, SERRATED HEX FLANGE, M8X1.25
10	CL 0008384	1	HOSE BARB, 1" NPT X 1" HOSE
11	MS 0303615	42	SCREW, BTHD M6X1X10MM
12	A 0008135.	1	CAP, 1" PIPE
14	RV 000942402	2	PLUG, 1" NPT
16	MC 000770303	1	ELBOW, 1" NPT 90 DEGREE FEMALE
19	CQ 0011318	1	GAGE, LEVEL
20	CQ 0011259F	1	GASKET, CAM & GROOVE 1" TYPE B
21	CQ 0011259M	1	ADAPTER 1" BOSS LOCK TYPE A
22	LT 0010884 S	1	SEALANT, THREAD, LOCTITE 59231
26	DQ 0003315BASV	1	BASKET, CHIP ASSEMBLY
28	CQ 000331516V	1	COVER, TANK
32	MS 0303617SA	8	SCREW ASSEMBLY, M6X1X16MM
33.1	DQ 0003315T	1	TRAY, COOLANT
37.1	DQA0003315PCV	1	COVER, TANK
38	CL 000770301	2	ELBOW, 1" NPT STREET
41	DQ 000331517V	1	TANK, COVER CHIP
45	MW 0104010	4	WASHER, FLAT, M10
47	CQ 000331524	1	4MM (0.157) CRSS
48	VL 000770213	1	ELBOW, 1/2 90 DEGREE FEMALE
49	AH 0011508	1	NUT, LOCK
50	CQ 000770234	1	ADAPTER, BELL - 1/2 TO 1/8 NPT
51	HS 001010904	1	PIPE NIPPLE, 1/2" NPT CLOSE NIPPLE
53	MN 0333610	2	NUT, PREVAILING LOCK M6 X 1
55	DQ 0003315REV	1	MIST SHIELD
56	DQ 0003315RER	1	2MM (0.078) CRSS
58.1	DQ 0003315RETC	1	2MM (0.078) CRSS
59	MN 0283510	8	NUT, SERRATED HEX FLANGE, M5X0.8
60.1	DQ 0003315LVL	1	CHIP BOX
61	MS 0303818	4	SCREW, BTHD M8X1.25X20MM
63	HG 000770301	2	PLUG, HOLE - 1

**Cover Assembly, Machine without Parts Catcher**

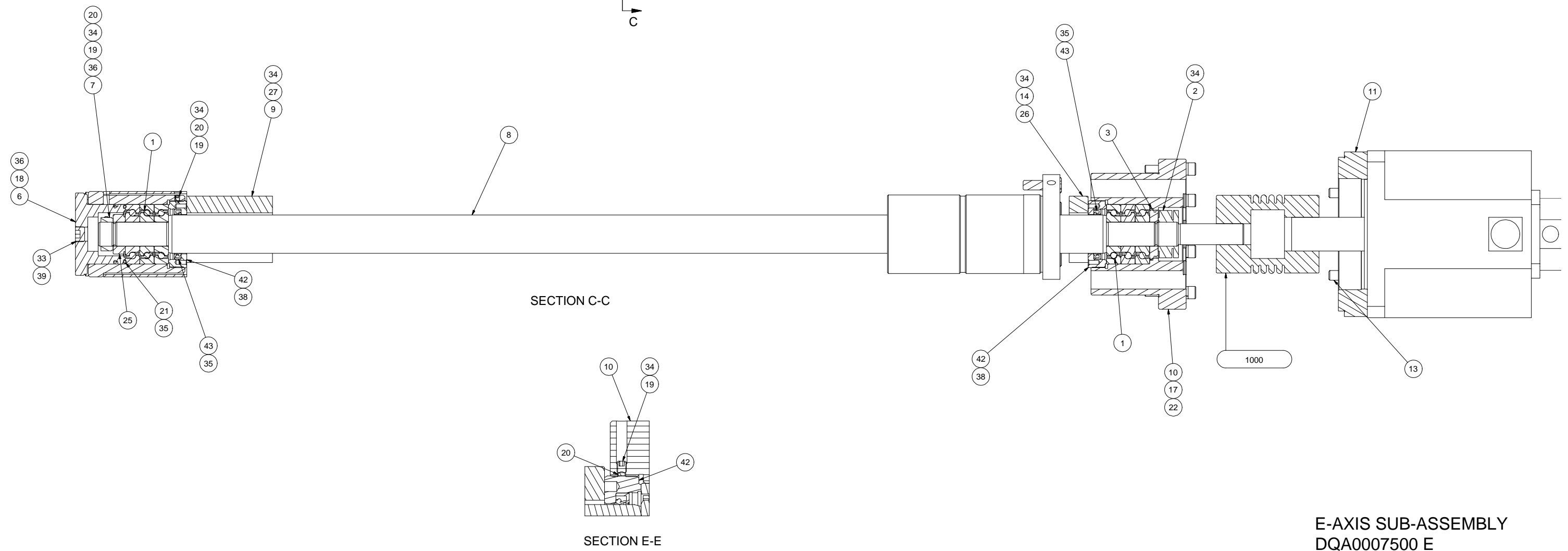
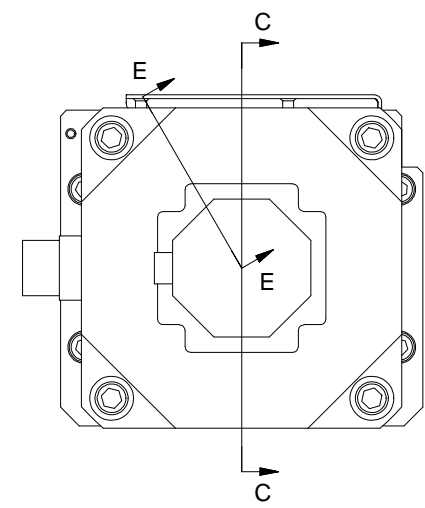


DETAIL A

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0002916LESS	1	COVER, NON PARTS CATCHER
2	DQ 0002916NONC	1	COVER, NON CONVEYOR
3	DQA0002916NOPC	1	STIFFENER, NON PARTS CATCHER
4	SR 0010116NOPR	1	GASKET, NON PARTS CATCHER
5	DQ 0010115NOPR	1	COVER, NON PARTS CATCHER
6	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
7	MN 0283510	12	FLANGE NUT, SER HEX, M5X0.8
8	MN 0283610	4	FLANGE NUT, SER HEX, M6X1
9	MS 0303617SA	2	SCREW ASSEMBLY, M6X1X16MM LO
10	MS 0303616SA	4	SCREW ASSEMBLY, 6MX1X12MM LO
1000	DQ 0002915	-	AIR PANEL, MAIN
1001	DQ 000632402	-	GUIDE RAIL, PART CATCHER
1002	DQ 000632401	-	GUIDE RAIL, PART CATCHER
1003	DQ 0000221HW	-	HEADWALL



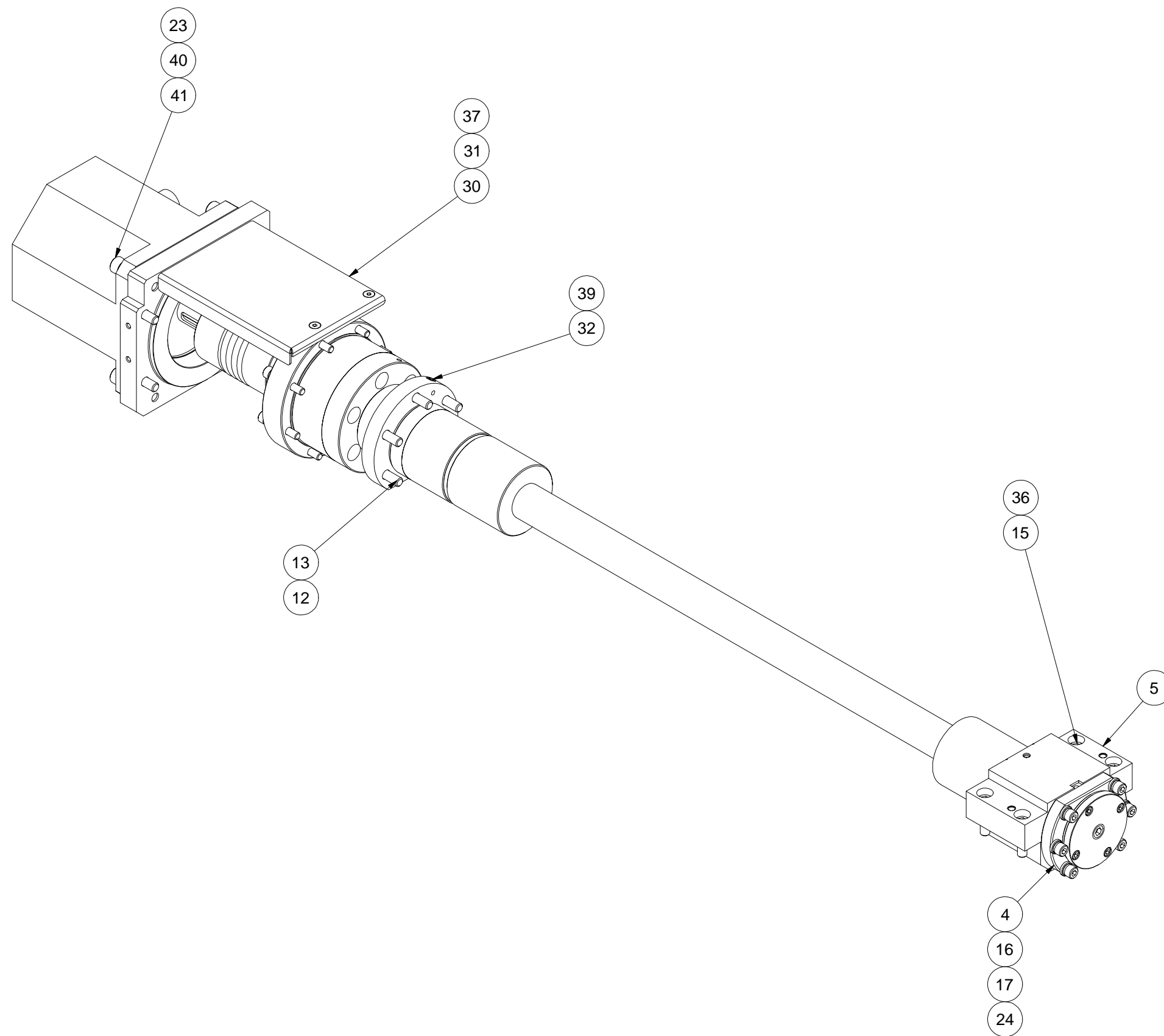
NON PARTS CATCHER COVERS ASSEMBLY  
DQ 0002916NPC



SECTION C-C

SECTION E-E

E-AXIS SUB-ASSEMBLY  
DQA0007500 E

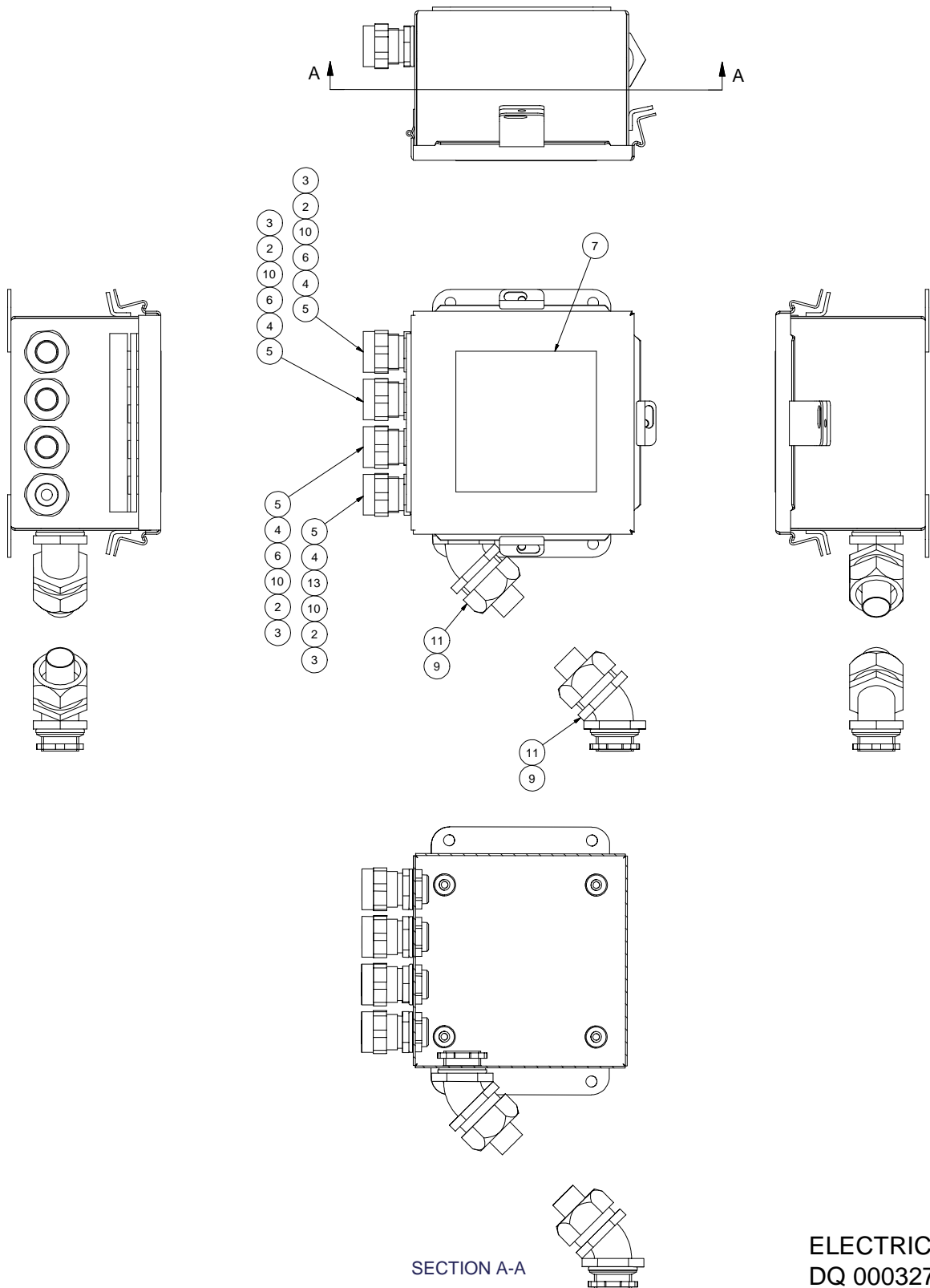


E-AXIS SUB-ASSEMBLY  
DQA0007500 E



ITEM	PART NUMBER	QTY	DESCRIPTION
1	CSA0004140	6	BEARING, BALL
2	CSA0000492	1	NUT, ADJUSTABLE SPIETH
3	CS 001119814	1	SEAL, LABYRINTH
4	QC 0011176 Z	1	HOUSING, BEARING
5	QCA0011932ZH	1	BALLSCREW SUPPORT
6	QCB0011137 Z	1	RETAINER RING
7	CS 000026005	1	NUT, LOCK
8	DQ 0001902 Z	1	BALL SCREW, Z AXIS
9	DQ 001197604	1	STOP, BALLSCREW
10	DQ 0011176 X	1	HOUSING, BEARING
11	DQA0001991	1	PLATE, MOTOR MOUNTING
12	MW 0194010	5	WASHER, LOCK, M10
13	MS 0104020	9	SCREW, SHC, M10X1.5X30MM
14	MS 0303515	2	SCREW, BTHD M5X0.8X10MM
15	MS 0104021	4	SCREW, SHC, M10X1.5X35MM
16	MS 0103821	6	SCREW, SHC, M8X1.25X35MM
17	MW 0193810	14	WASHER, LOCK, M8
18	MS 0103618	4	SCREW, SHC, M6X1X20MM
19	MS 0553513	3	SCREW, SET, CUP, M5X.8X6
20	CH 0004732	3	PLUG, BRASS
21	CS 000943101	2	O-RING
22	MS 0103823	8	SCREW, SHC, M8X1.25X45MM
23	MW 0104210	4	WASHER, FLAT, M12
24	5 0001895	6	WASHER
25	CL 001082801	1	SPACER
26	QCA001197603	1	STOP, Z-AXIS BALL SCREW
27	MS 0103520	2	SCREW, SHC, M5X0.8X30MM
30	DQ 0010115ECC	1	COVER, E-AXIS COUPLING
31	MS 0313616	2	SCREW, FHD SOC, M6 X 1.0 X 12
32	5 0001467	1	PLUG, 1/8 NPT
33	CN 0001467	1	PLUG, 3/8" NPTF PIPE FLUSH
34	NC 001088402	0.10	THREADLOCKER, LOCTITE 222
35	ML 0010994BS	0.02	GREASE, BALLSCREW SEAL
36	NC 0010884	0.04	THREADLOCKER, LOCTITE 242
37	GE 0010884	0.02	SEALER, CLEAR
38	HG 0010440	0.01	GREASE, ANTI-SIEZE
39	LT 0010884 S	0.0	SEALANT, PIPE
40	MW 0194210	4	WASHER, LOCK, M12
41	MS 0104223	4	SCREW, SHC, M12X1.75X45MM
42	DQ 0001799	2	NUT, BEARING
43	MC 0011198	2	SEAL, LIP
1000	DQ 0011792 ZCR1	1	COUPLING, Z AXIS

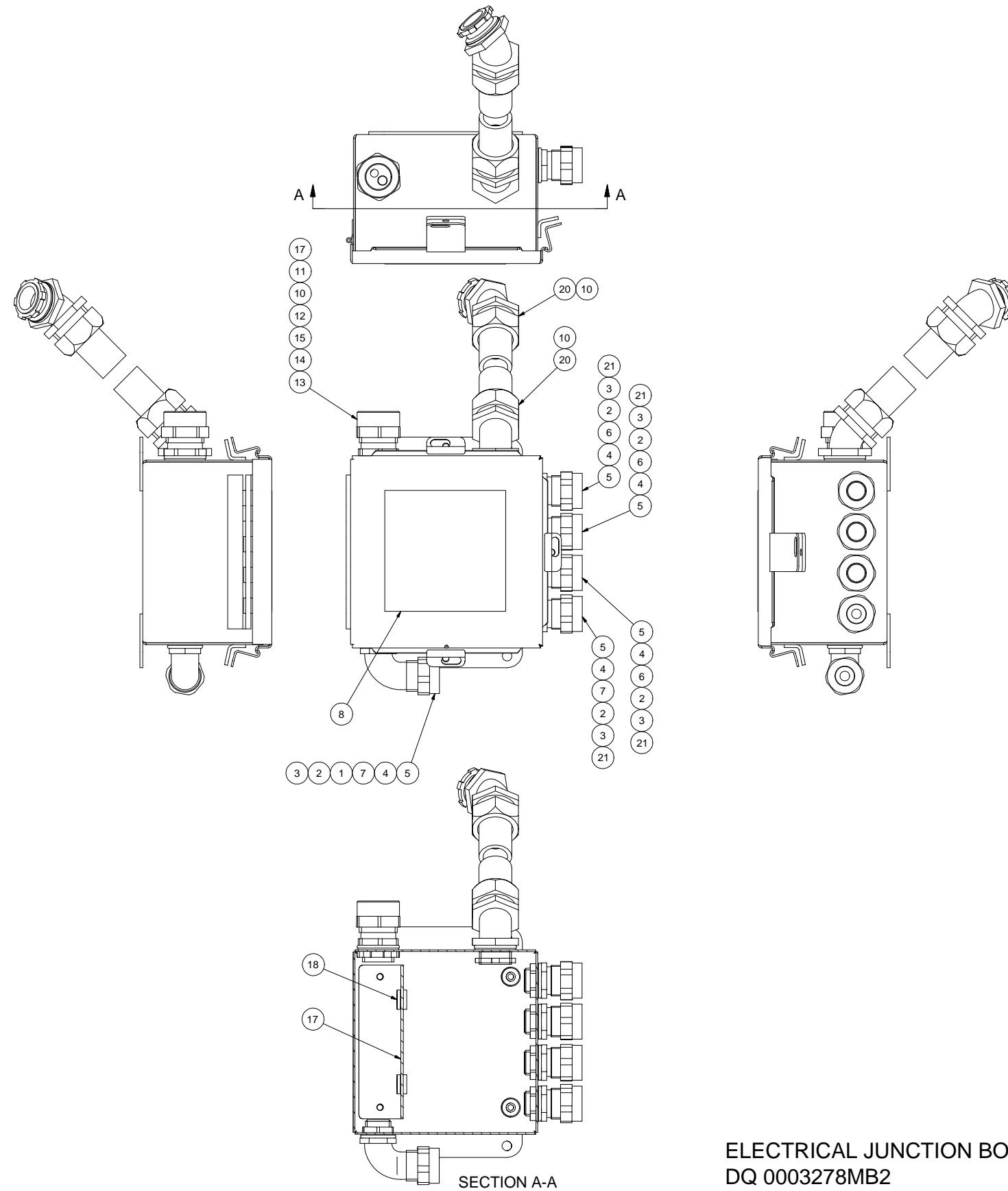
**Electrical Junction Box Assembly, Main Spindle Compartment**



ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 9010475	1	JUNCTION BOX
2	50 0010226	4	GASKET ASSEMBLY, 1/2 INCH
3	AH 0011508	4	NUT, LOCK
4	DB 0009207 W	4	WASHER, CONNECTOR
5	DB 00092079B	4	NUT, COMPRESSION, F2
6	DB 00092079U	3	GROMMET, F2, .437-.562
7	LCC0010302CE	1	TAG, ELECTRICAL HAZARD
9	75 0010226	2	SEAL, .75 INCH
10	DB 00092079A	4	BODY, CONNECTOR
11	QC 001125904	2	FITTING, 45 DEGREE 3/4"
13	DB 00092079V	1	GROMMET
14	6 0002874	41"	WIRE, 6 AWG, GREEN-YELLOW
15	26 0009188 E	3	TERMINAL, 6 AWG, #10 RING
16	E6 000918838	1	TERMINAL, 6 AWG, 3/8" RING

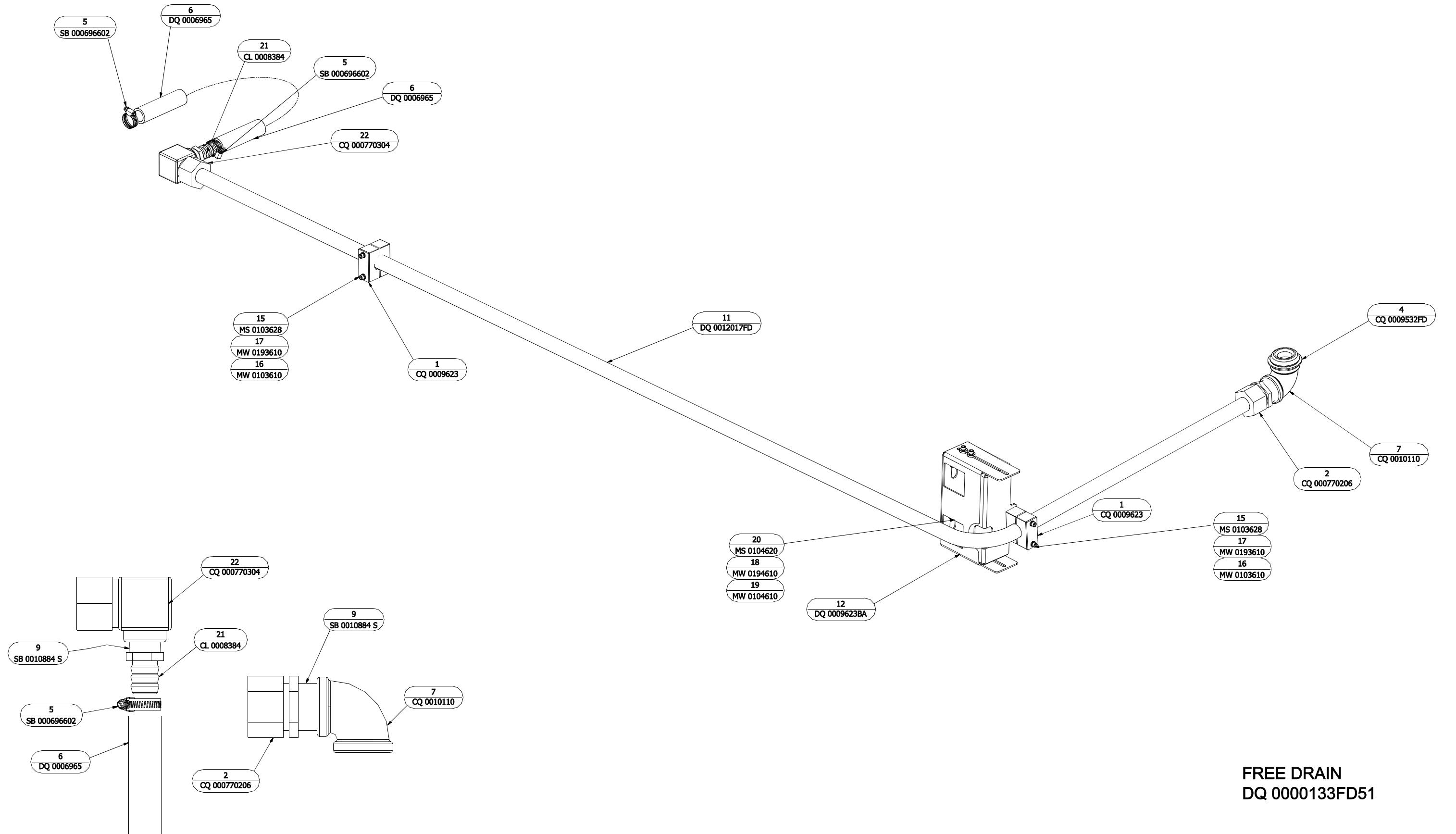
**ELECTRICAL JUNCTION BOX, MAIN SPINDLE COMPARTMENT**  
**DQ 0003278MB1**

**Electrical Junction Box Assembly, Sub-Spindle Compartment**



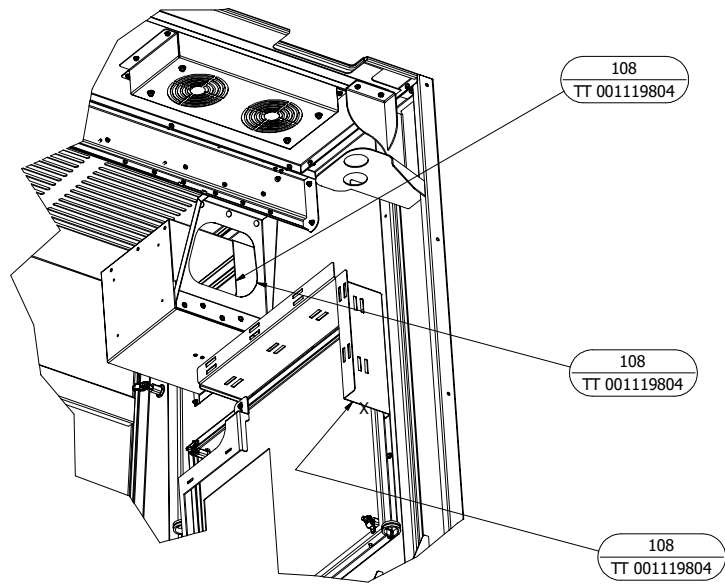
ITEM	PART NUMBER	QTY	DESCRIPTION
1	SB 0010785	1	BODY, 90 DEGREE CONNECTOR
2	50 0010226	5	GASKET ASSEMBLY, 1/2 INCH
3	AH 0011508	5	NUT, LOCK
4	DB 0009207 W	5	WASHER, CONNECTOR
5	DB 00092079B	5	NUT, COMPRESSION, F2
6	DB 00092079U	3	GROMMET, F2, .437-.562
7	DB 00092079V	2	GROMMET
8	LCC0010302CE	1	TAG, ELECTRICAL HAZARD
10	75 0010226	3	SEAL, .75 INCH
11	AH 001150801	1	LOCKNUT, .75 INCH
12	DB 00092073B	1	BODY, CORD GRIP, 3/4" FORM 3
13	DB 0009207 B	1	NUT, CORD GRIP
14	NT 000920711	1	WASHER
15	DB 00092072X3A	1	GROMMET, FORM 3 2 X .328
16	CD 0004900	1	PIN, DOWEL
17	CQ 0004158P1	1	PLATE, DIVIDER
18	NC 000953205	2	GROMMET
19	CQ 9010475	1	JUNCTION BOX
20	QC 001125904	2	FITTING, 45 DEGREE 3/4"
21	DB 00092079A	4	BODY, CONNECTOR
22	75 0010229	15.75	CONDUIT, LIQUID TIGHT 3/4"
23	6 0002874	41"	WIRE, 6 AWG, GREEN-YELLOW
24	26 0009188 E	4	TERMINAL, 6 AWG, #10 RING

**ELECTRICAL JUNCTION BOX, SUB-SPINDLE COMPARTMENT**  
**DQ 0003278MB2**

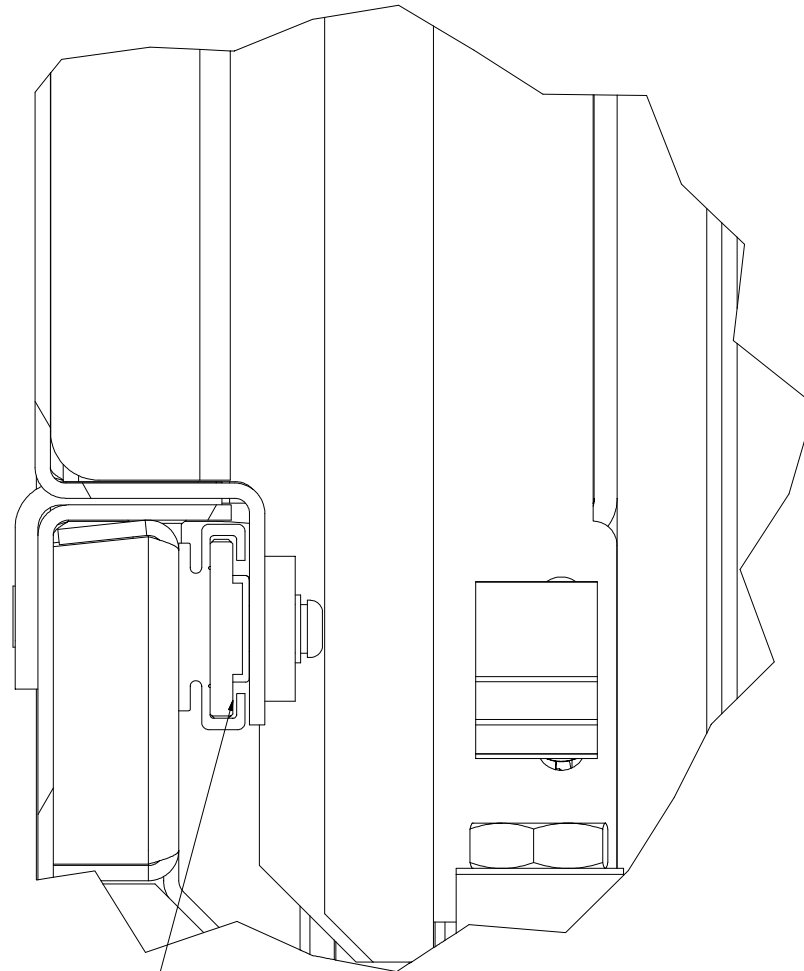


FREE DRAIN  
DQ 000133FD51

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0009623	2	CLAMP, TUBE
2	CQ 000770206	1	CONN, STR 1-1/2" NPT X 1-1/4" TUBE
4	CQ 0009532FD	1	GROMMET, SEALING
5	SB 000696602	2	CLAMP HOSE 13/16" TO 1-1/2"
6	DQ 0006965	48"	HOSE 1"
7	CQ 0010110	1	ELBOW, 1-1/2" X 90 DEG FEMALE
9	SB 0010884 S	1	SEALANT, LOCTITE 569 HYDRAULIC
11	DQ 0012017FD	1	TUBE, FREE DRAIN
12	DQ 0009623BA	1	BRACKET ASSEMBLY, FREE DRAIN
15	MS 0103628	4	SCREW, SHC, M6X1X70MM
16	MW 0103610	4	WASHER, FLAT, M6
17	MW 0193610	4	WASHER, LOCK, M6
18	MW 0194610	2	WASHER, LOCK, M16
19	MW 0104610	2	WASHER, FLAT, M16
20	MS 0104620	2	SCREW, SHC, M16X2X30MM
21	CL 0008384	1	HOSE BARB, 1" NPT X 1" HOSE
22	CQ 000770304	1	ELBOW, 1" NPT X 1-1/4 TUBE

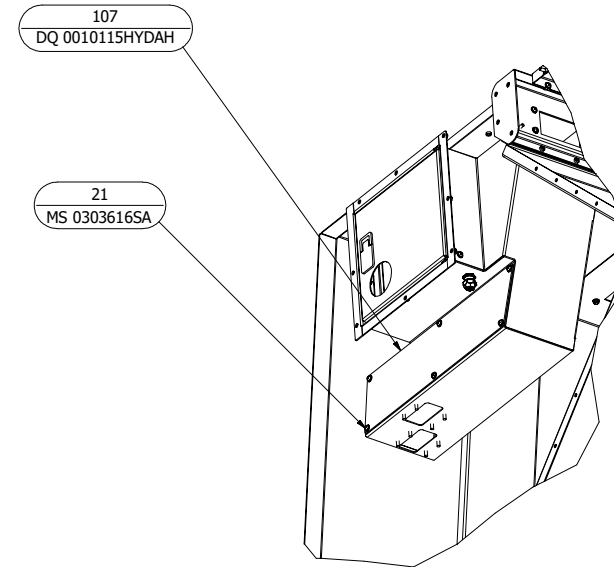


DETAIL N  
FROM SHEET 3 OF 4



DETAIL K

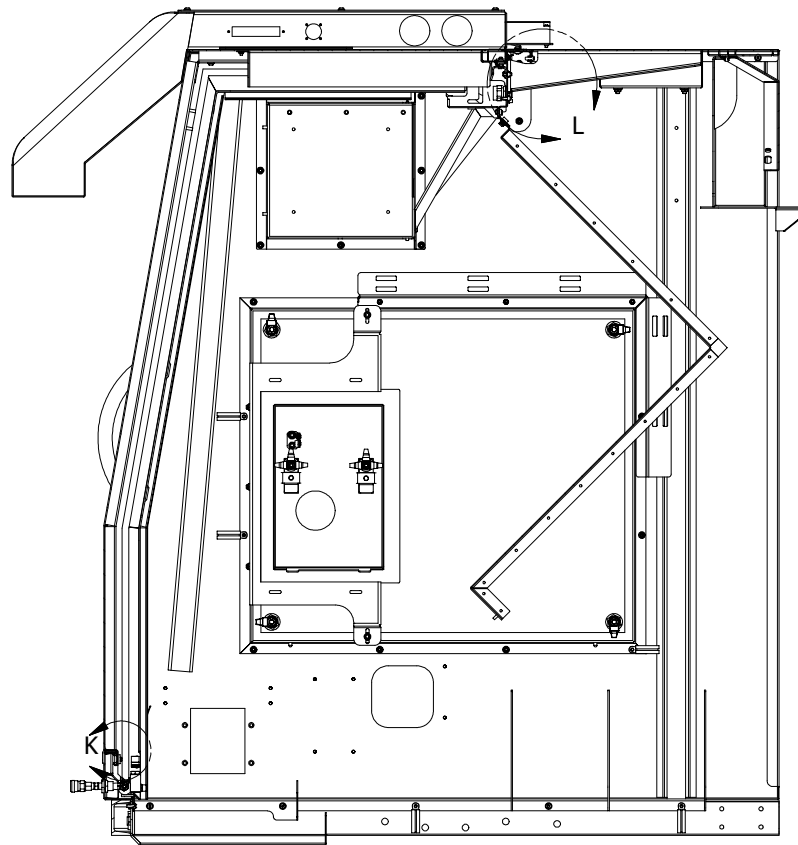
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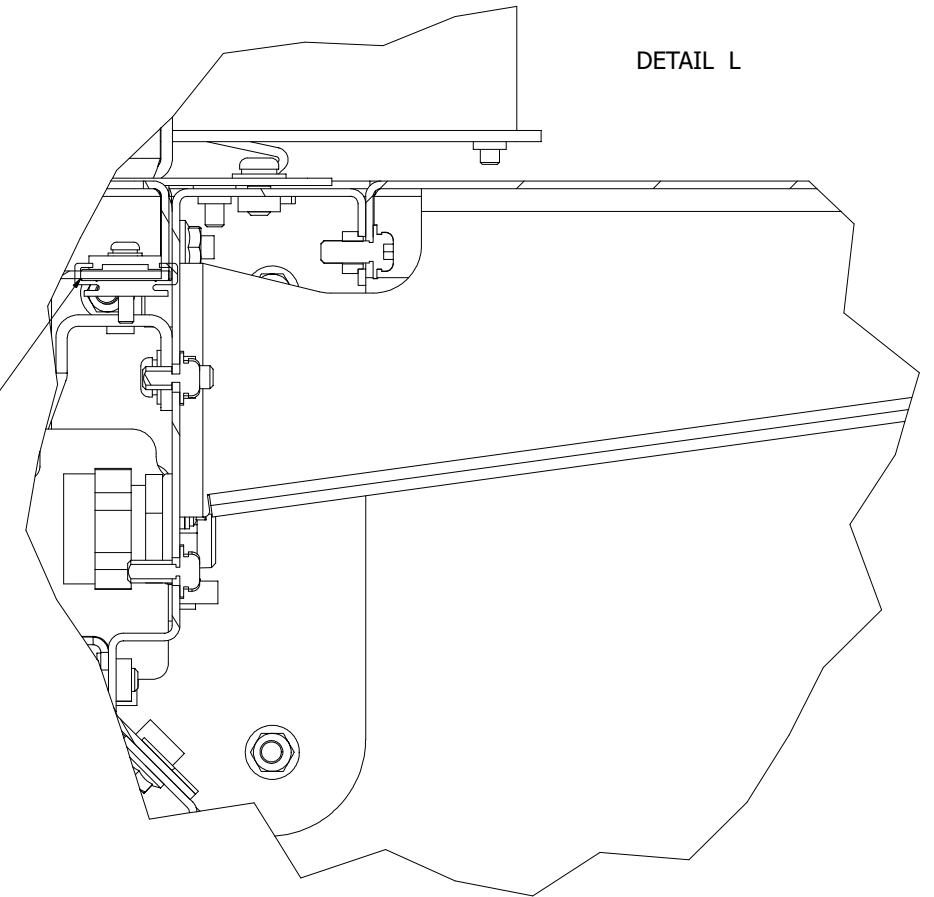
DETAIL P

107  
DQ 0010115HYDAH

21  
MS 0303616SA



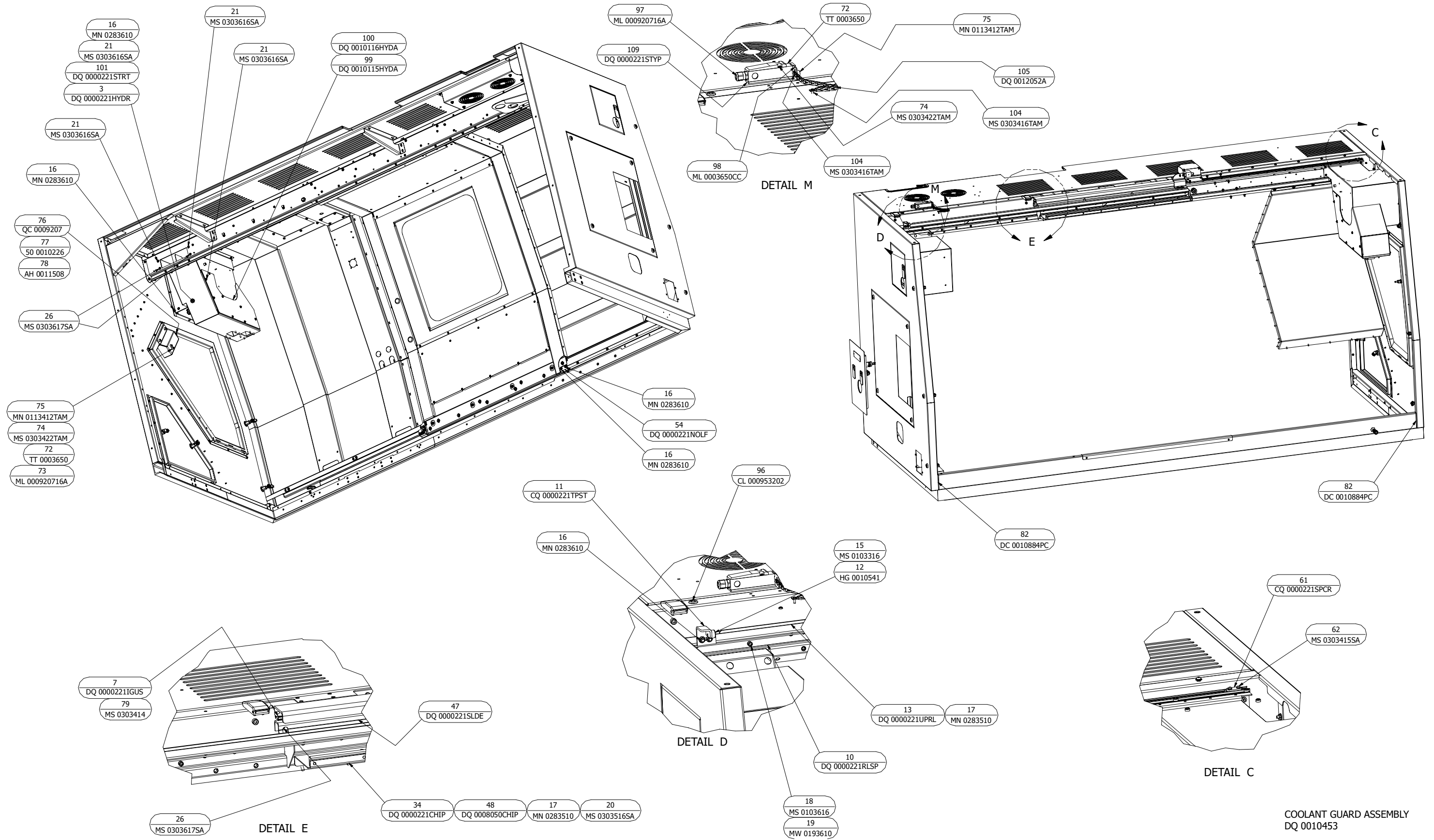
SECTION J-J



DETAIL L

102  
CS 0010994

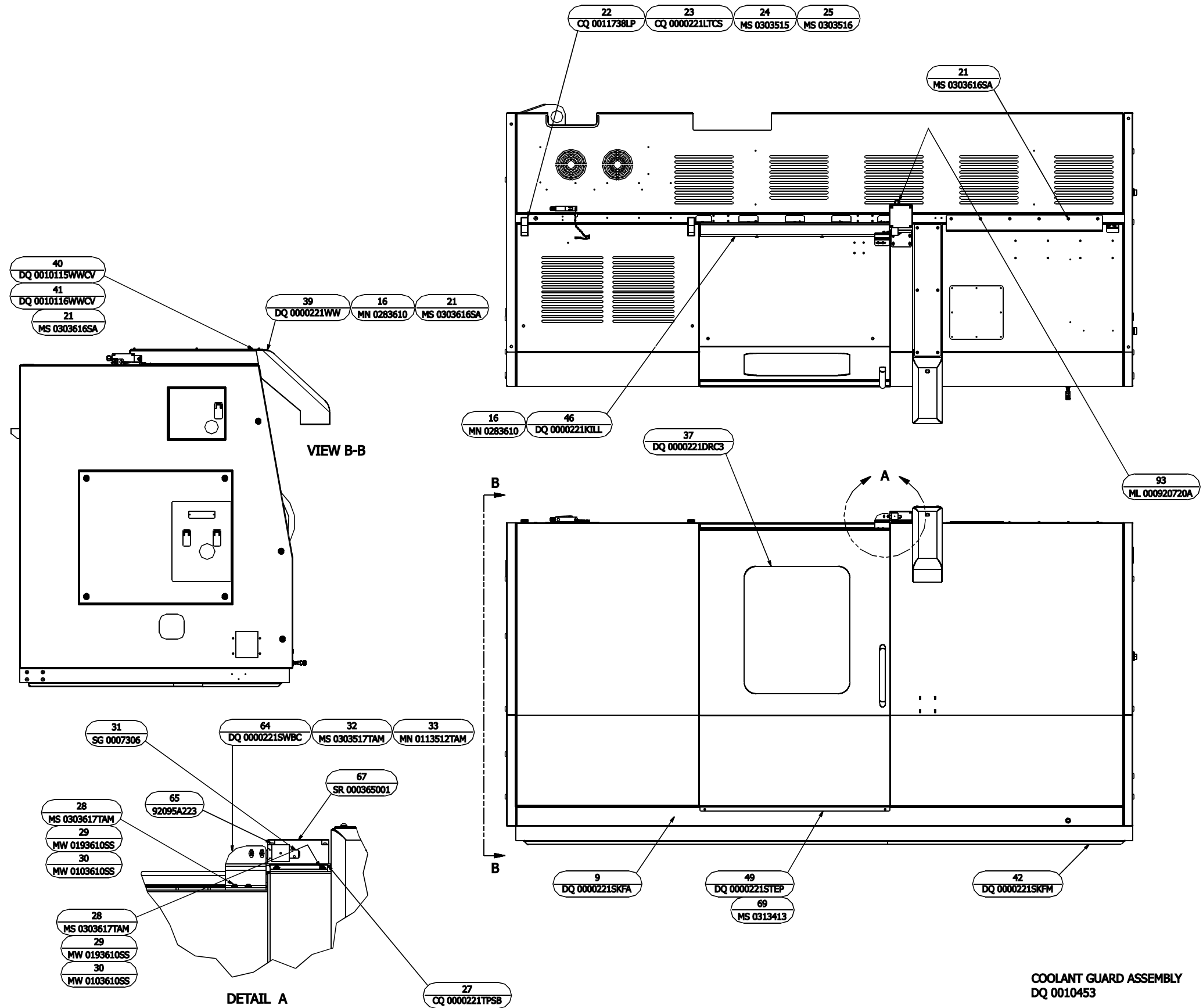
COOLANT GUARD ASSEMBLY  
DQ 0010453



COOLANT GUARD ASSEMBLY  
DQ 0010453



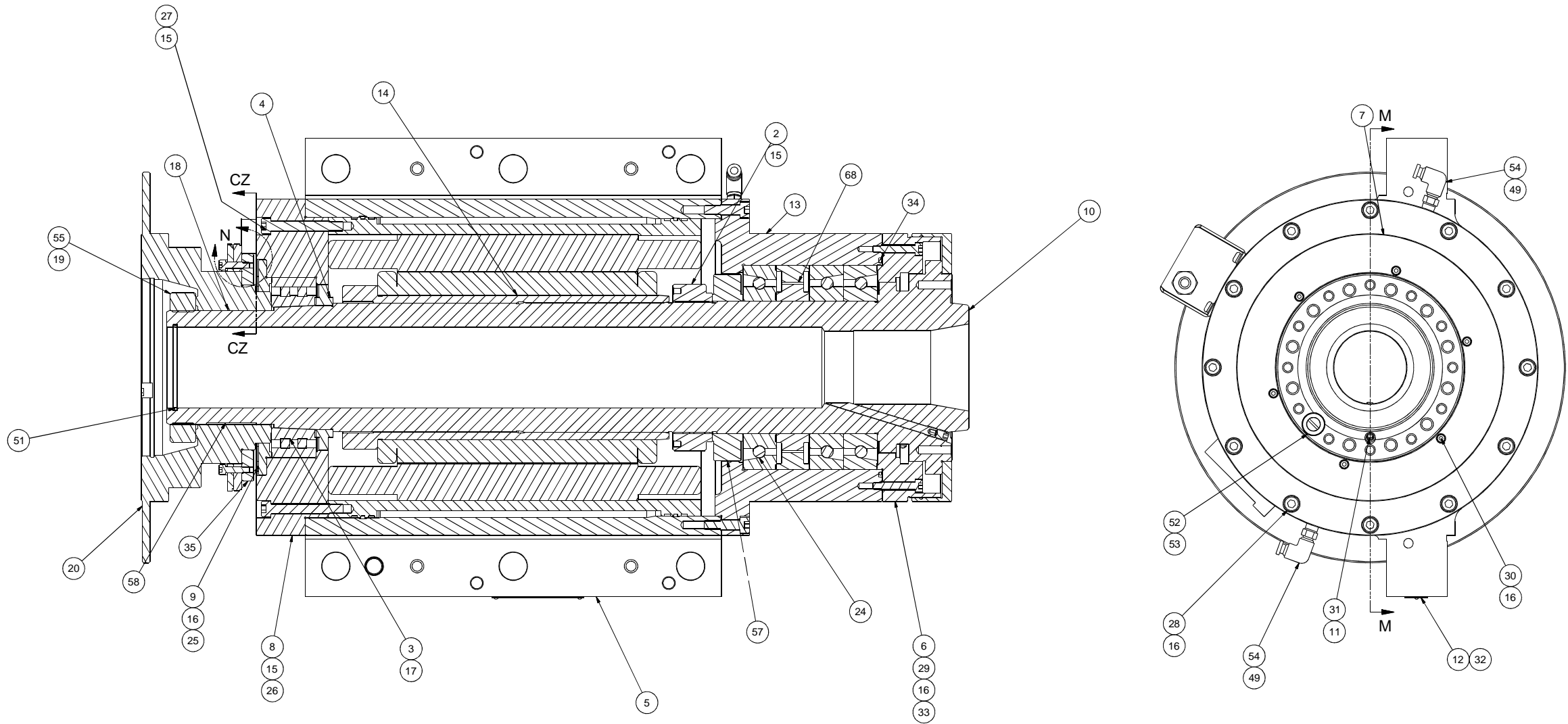




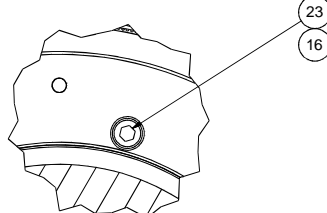
COOLANT GUARD ASSEMBLY  
DQ 0010453

Guard Assembly

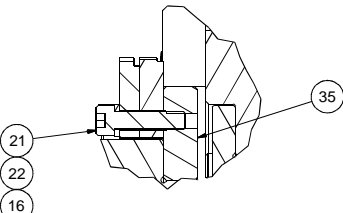
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000221UPRT	1	PANEL, RIGHT END	41	DQ 0010116WWCV	1	GASKET, WIREWAY	82	DC 0010884PC	1	SEALER, DOW CORNING 737
2	DQ 0000221RFBC	2	BRACKET, ROOF	42	DQ 0000221SKFM	1	FRAME, COOLANT GUARD	83	QC 000962302	5	CLAMP CABLE - 1-1/2"
3	DQ 0000221HYDR	1	BOX, RIGHT SIDE	43	DQ 0000221TCF	1	BEAM, MAIN	84	CT 0011096	1	COUPLING, 1/8NPT HEX
4	CQ 0010115UPRT	1	COVER, RIGHT END	44	DQ 0000221ROOF	1	PANEL, ROOF	85	MC 000770204	1	CONNECTOR, STR 1/4NPT-3/8 TUBE
5	DQ 0010115RSER	1	COVER, LOWER RIGHT END	45	DQ 0000221RAIL	1	RAIL, FRONT DOOR	86	CF 0009623	1	CLAMP, PLASTIC
6	CQ 0000221LRCVN	1	COVER, RIGHT VALVE	46	DQ 0000221KILL	1	BRACKET, DOOR STOP	87	KH 0010786	1	CONNECTOR, MALE
7	DQ 0000221IGUS	1	LINEAR GUIDE, LOW PROFILE	47	DQ 0000221SLDE	1	SUPPORT, RAIL	88	CQ 0007007AN	1	HOSE, -6 ENDS
8	DQ 0000221UPLF	1	PANEL, LEFT END	48	DQ 0008050CHIP	1	WIPER, CQ DOOR	89	SBA0006966	1	CLAMP, PLASTIC
9	DQ 0000221SKFA	1	SKIRT	49	DQA0000221STEP	1	STEP, GUARD	90	DQ 0000221LAB1	1	DOOR LABYRINTH, TOP
10	DQ 0000221RLSP	1	SUPPORT, RAIL	50	DQ 0000221LSTP	1	STOP, DOOR	91	DQ 0000221LAB3	1	DOOR LABYRINTH, BOTTOM
11	CQ 0000221TPST	1	STOP, DOOR UPPER	51	MW 0103810 H	2	WASHER, FLAT, HARD, M8	92	DQ 0000221LAB2	1	DOOR LABYRINTH, SIDE
12	HG 0010541	3	BUMPER, BUNA-N	52	MW 0193810	2	WASHER, LOCK, M8	93	ML 000920720A	1	CORD GRIP 20MM
13	DQ 0000221UPRL	1	RAIL, MAIN DOOR	53	MS 0103824	2	SCREW, SHC, M8X1.25X50MM	96	CL 000953202	1	GROMMET
14	DQ 0000221NSTP	1	STOP, DOOR	54	DQ 0000221NOLF	1	BRACKET, NO LIFT	97	ML 000920716A	1	CORD GRIP, 16MM
15	MS 0103316	3	SCREW, SHC, M3X0.5X12MM	55	3360A38	1	PLUNGER, HEX-NOSE SPRING	98	ML 0003650CC	1	KEY, STRAIGHT
16	MN 0283610	64	NUT, SERRATED HEX FLANGE, M6X1	57	DQ 0000221STLT	1	STIFFENER, MAIN LEFT	99	DQ 0010115HYDA	1	COVER, RIGHT SIDE BOX
17	MN 0283510	30	NUT, SERRATED HEX FLANGE, M5X0.8	58	DQ 0000221HYDL	1	BOX, LEFT SIDE	100	DQ 0010116HYDA	1	GASKET, RIGHT SIDE BOX
18	MS 0103616	12	SCREW, SHC, M6X1X12MM	59	CQ 0000221LLCV	1	COVER, LEFT VALVE	101	DQ 0000221STRT	1	STIFFENER, MAIN RIGHT
19	MW 0193610	12	WASHER, LOCK, M6	60	90502A031	2	NUT, EXTRA-WIDE THIN HEX 3/8"-16	102	CS 0010994	1	GREASE, MOBILTEMP SHC-32
20	MS 0303516SA	4	SCREW, BH M5X.8X12 ASSY	61	CQ 0000221SPCR	5	SPACER	103	CQ 0002533BF	1	COVER, COOLANT CATCHER
21	MS 0303616SA	55	SCREW ASSEMBLY, 6MX1X12MM	62	MS 0303415SA	10	SCREW ASSEMBLY, M4X.7X10MM	104	MS 0303416TAM	2	SCREW, M4 x 12 TAMPER PROOF
22	CQ 0011738LP	2	DRAW LATCH	63	DQ 0000221RRST	1	STIFFENER, RIGHT REAR	105	DQ 0012052A	1	CHAIN, SASH, SIZE 35, 16 LINKS
23	CQ 0000221LTCS	2	SPACER, DRAW LATCH	64	DQ 0000221SWBC	1	BRACKET, FRONT DOOR SWITCH	107	DQ 0010115HYDAH	1	COVER, RIGHT SIDE BOX
24	MS 0303515	6	SCREW, BTHD M5X0.8X10MM	65	92095A223	4	SCREW, M5x45 BH TAM-6LOBE	108	TT 001119804	1	TRIM-SEAL, 150B2X3/16
25	MS 0303516	4	SCREW, BTHD M5X0.8X12MM	66	DQ 0000221WRTY	1	TRAY, WIREWAY	109	DQ 0000221STYP	1	SPACER, SAFETY SWITCH
26	MS 0303617SA	68	SCREW ASSEMBLY, M6X1X16MM	67	SR 000365001	1	SWITCH, LOCKING SAFETY 24VDC				
27	CQ 0000221TPSB	1	PLATE, MAIN DOOR SWITCH	68	DQ 0006418	1	SUPPORT, WAYCOVER				
28	MS 0303617TAM	6	SCREW, M6x1 x 16 BH TAM-6LOBE	69	MS 0313413	2	SCREW, FHC, M4 X 0.7 X 6MM				
29	MW 0193610SS	6	WASHER, M6X1.0 -STAINLESS STEEL	70	MS 0103821	1	SCREW, SHC, M8X1.25X35MM				
30	MW 0103610SS	6	WASHER, FLAT M6 STAINLESS STEEL	71	MS 0103819	1	SCREW, SHC, M8X1.25X25MM				
31	SG 0007306	1	KEY, SAFETY SWITCH STRAIGHT	72	TT 0003650	2	SWITCH, SAFETY				
32	MS 0303517TAM	2	SCREW, M5x16 BH TAM-6LOBE	73	ML 000920716A	1	CORD GRIP, 16MM				
33	MN 0113512TAM	2	NUT, M5 PENTA	74	MS 0303422TAM	4	SCREW, M4 x 40 TAMPER PROOF				
34	DQ 0000221CHIP	1	DEFLECTOR, CHIP	75	MN 0113412TAM	3	NUT, M4 TAMPER PROOF				
35	CQ 0000221UPLT	1	COVER, LEFT END	76	QC 0009207	1	CORD GRIP, .12-.28, 1/2NPT				
36	DQ 0000221LTFT	1	PANEL, FRONT LEFT	77	50 0010226	1	GASKET ASSEMBLY 1/2 INCH				
37	DQ 0000221DRC3	1	DOOR, MAIN, FRONT, C3	78	AH 0011508	1	NUT, LOCK				
38	DQ 0000221RTFT	1	PANEL, FRONT RIGHT	79	MS 0303414	36	SCREW, BTHD M4X0.7X8MM				
39	DQ 0000221WW	1	WIREWAY, MAIN	80	NC 001088402	1	THREADLOCKER, LOCTITE 222				
40	DQ 0010115WWCV	1	COVER, WIREWAY	81	NC 0010884	1	THREADLOCKER, LOCTITE 242				



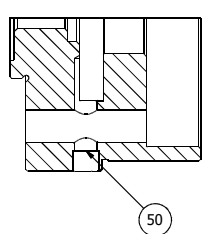
CZ ADAPTER DETAIL



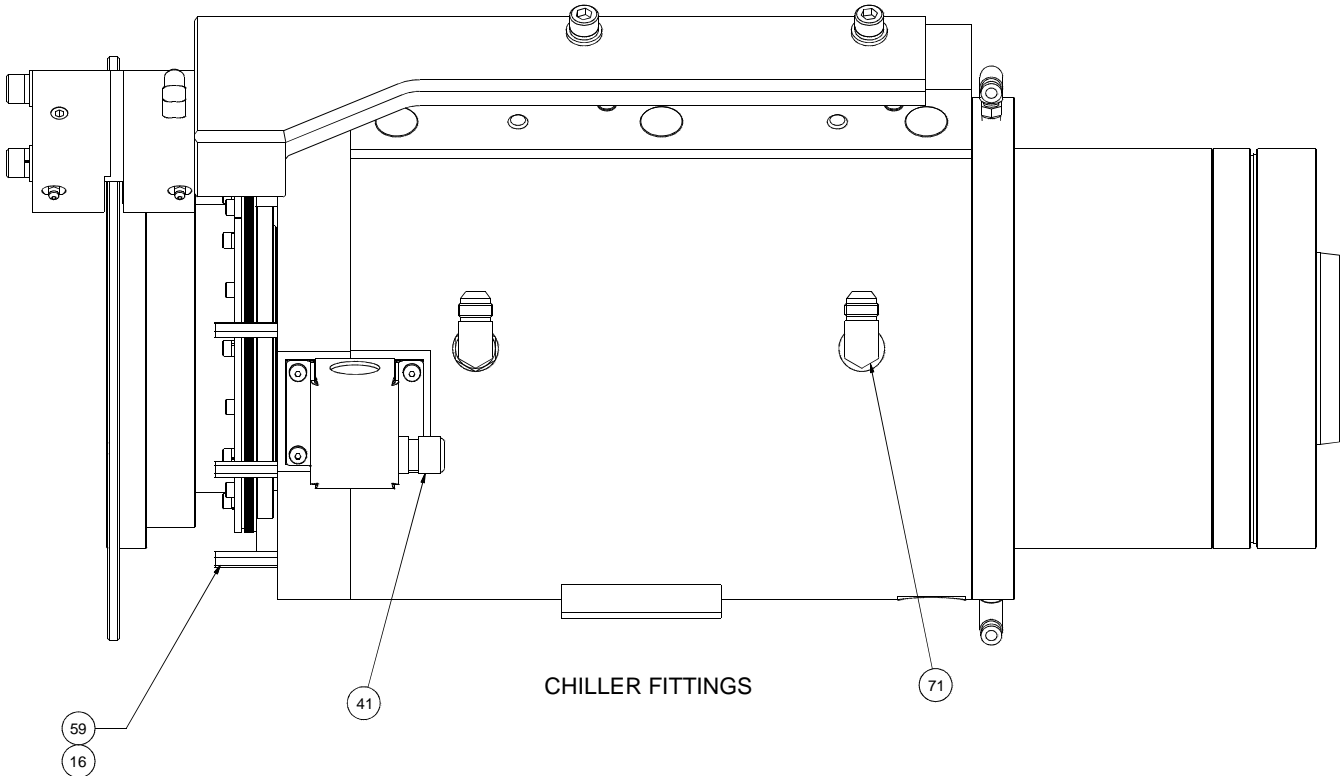
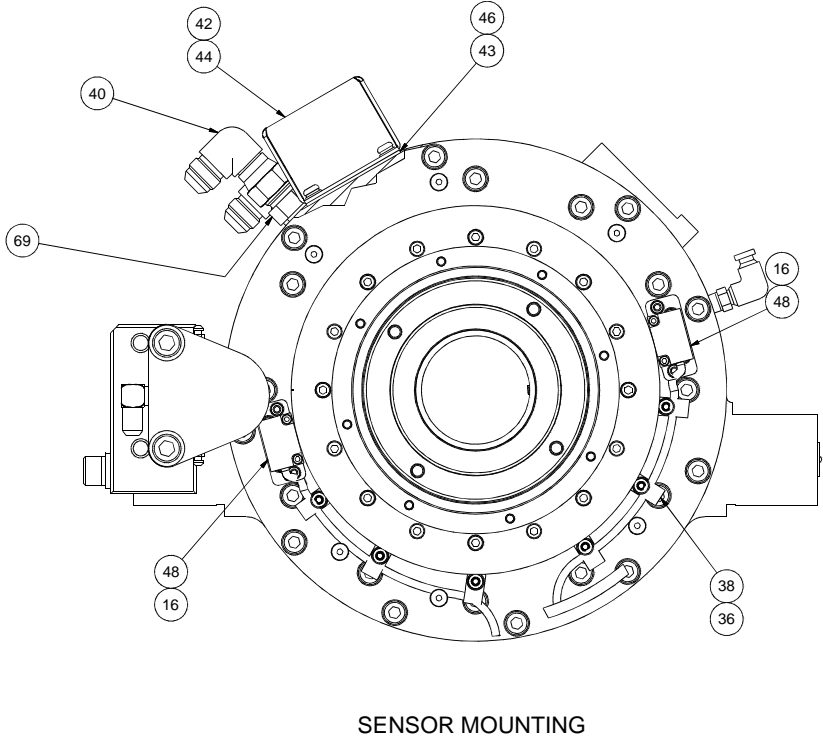
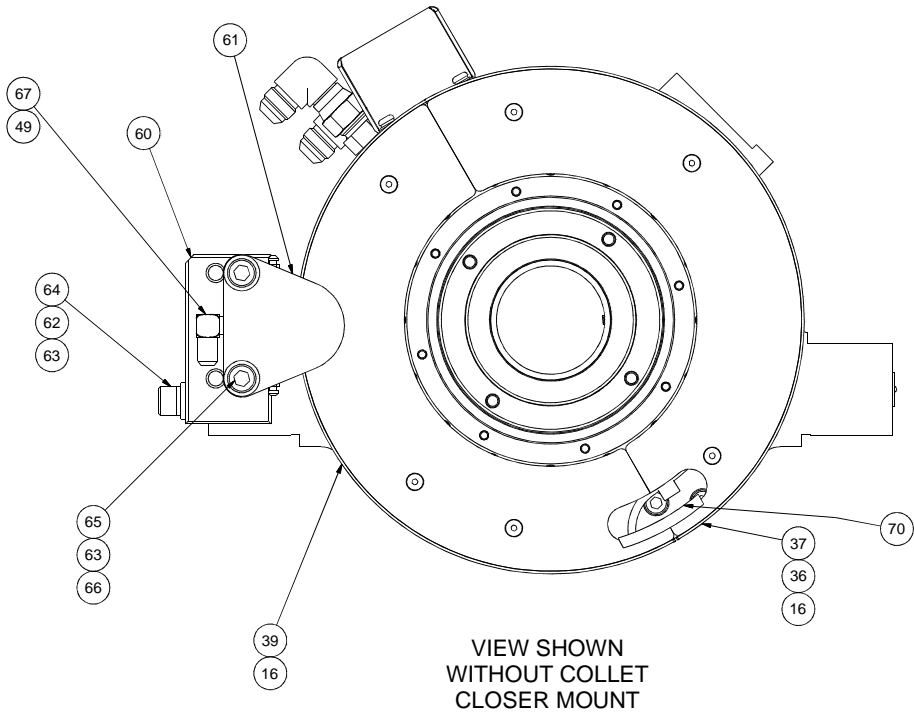
ENCODER RING DETAIL



FRONT BEARING CAP DETAIL



HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-51  
DQ 000002CZCR

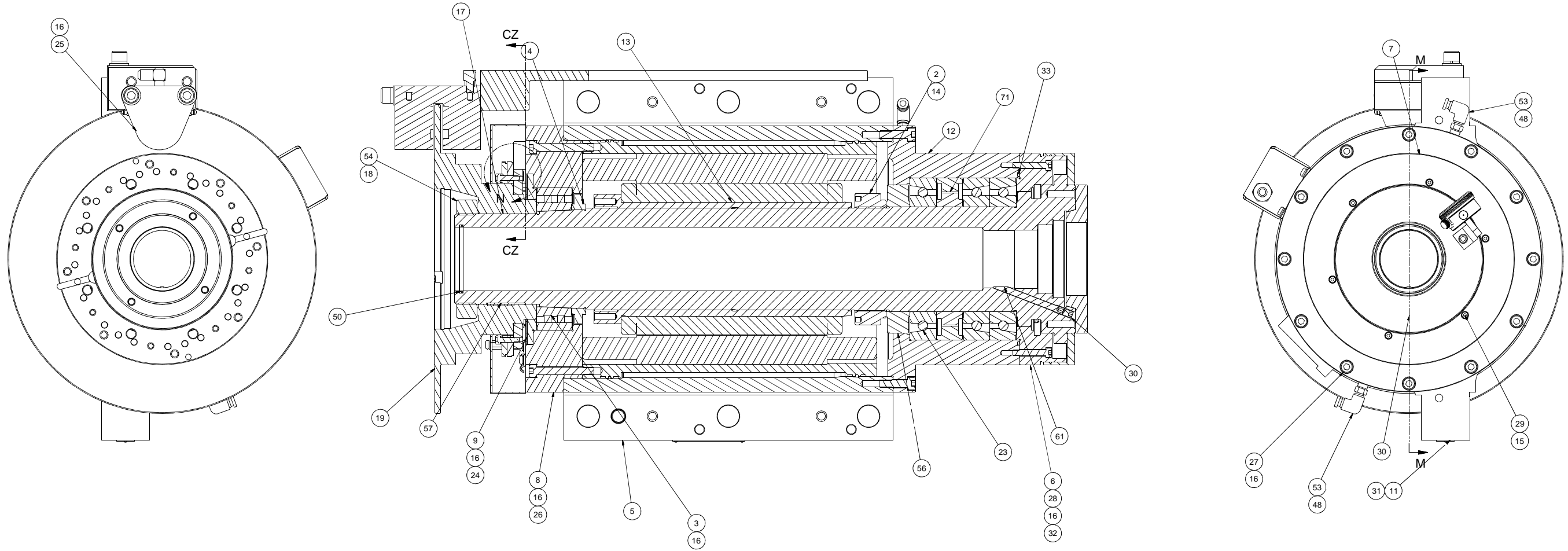


HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-51  
DQ 000002CZCR

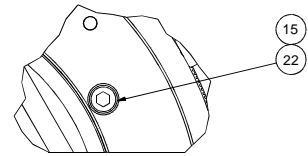
Headstock Assembly, Main Spindle, T-51 Lathe

ITEM	PART NUMBER	QTY	DESCRIPTION
2	QC 000406801BL	1	NUT
3	QC 0000265RESR	1	ROLLER BEARING, REAR
4	DQ 001048103	1	SPACER, BEARING
5	DQ 0000264	1	HEAD FRAME T-51 MAIN
6	DQ 0000275	1	CAP, HEADSTOCK
7	DQ 0000283SL	1	SLINGER, SPINDLE
8	DQ 001117606CZCR	1	HOUSING, REAR BEARING
9	DQ 0004937	1	RETAINER, REAR BEARING
10	DQ 0000283CR	1	SPINDLE, T-51
11	CL 0000284	1	KEY, COLLET
12	QC 0001535	1	LABEL, MODULE
13	DQ 00111760551	1	HOUSING, FRONT BEARING T-51
14	DQ 001179305	1	ROTOR ASSEMBLY, T-51
15	NC 0010884	0.2	THREADLOCKER, LOCTITE 242
16	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
17	HS 0010994SL	0.02	GREASE
18	KH 001088402	0.1	LOCTITE, ADHESIVE, GREEN
19	NT 0006708	2	PIN, PULL OUT DOWEL
20	DQ 001179701CZCR	1	MOUNT, COLLET CLOSER
21	MS 0103518	8	SCREW, SHC, M5X0.8X20MM
22	MW 0193510	8	WASHER, LOCK, M5
23	MS 0103516	8	SCREW, SHC, M5X0.8X12MM
24	QD 0000265 R	1	BEARING, 110BNR10TYDB
25	MS 0103515	10	SCREW, SHC, M5X0.8X10MM
26	MS 0103822	10	SCREW, SHC, M8X1.25X40MM
27	MS 0103826	11	SCREW, SHC, M8X1.25X60MM
28	MS 0103820	12	SCREW, SHC, M8X1.25X30MM
29	MS 0103621	12	SCREW, SHC, M6X1X35MM
30	MS 0103415	6	CREW, SHC, M4X0.7X10MM
31	MS 0553815	1	SCREW, SET, CUP, M8X1.25X10
32	R 0008044	2	PIN, ESCUTCHEON
33	OR 0000608	2	O-RING
34	OR 0108112	1	O RING
35	DQ 0011797AD	1	ADAPTER, CZ RING
36	MS 0303515SA	12	SCREW ASSEMBLY, BH M5X.8X10
37	DQ 0010115CZ2LB	1	COVER, C AXIS RIGHT
38	GK 0006966	6	CLAMP, HOSE 4 MM SINGLE
39	DQ 0010115CZ1LB	1	COVER, C AXIS LEFT
40	CS 000838406	1	ELBOW, 90 DEGREE -8 SWIVEL

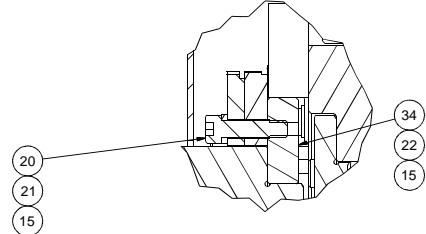
ITEM	PART NUMBER	QTY	DESCRIPTION
41	ML 000920716A	1	CORD GRIP, 16MM
42	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
43	QC 001011602	1	GASKET, COVER WIRING
44	DQ 0010115HDS2	1	COVER, SPINDLE WIRING
45	VS 0010440	0.1	LUBRICATION, ANTI-SEIZE
46	ML 0010884	0.2	ADHESIVE, 3M
47	CS 001088406	0.1	THREADLOCKER, LOCTITE 290
48	MS 0103318	4	SCREW, SHC, M3X0.5X20MM
49	SB 0010884 S	0.1	SEALANT, HYDRAULIC
50	S 001070007	1	LEE PLUG, 0.281
51	QCA001119806	1	LIP SEAL, SPINDLE
52	CL 0011920	1	BUTTON, DRIVING
53	CL 001192001	1	SCREW, BUTTON
54	ST 0007703	2	FITTING, AIR SWIVEL
55	EQ 0004068	1	NUT
57	CQ 000405751	1	SPACER, BEARING
58	QCA0006317	1	KEY
59	DQ 001019035	6	STANDOFF, M5X35MM
60	DQ 0000221BRAKE	1	BRACKET, BRAKE
61	CSB0010462 A	1	BRAKE SPINDLE
62	MW 0104010 H	2	WASHER, FLAT, HARD, M10
63	MW 0194010	4	WASHER, LOCK, M10
64	MS 0104022	2	SCREW, SHC, M10X1.5X40MM
65	MS 0104034	2	SCREW, SHC, M10X1.5X120MM
66	MW 0104010	2	WASHER, FLAT, M10
67	AD 001133804	1	ELBOW, 90 DEGREE
68	CL 0010389	1	SPACER ASSEMBLY
69	HS 000770393	1	ADAPTER, -6 SAE M TO -8 JIC M
70	SB 001056504	2"	U CHANNEL
71	CQ 000770226	1	ELBOW, -8 JIC X -6 SAE 90 DEGREE



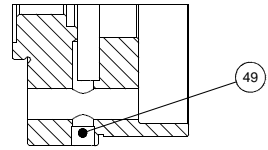
DETAIL CZ READER



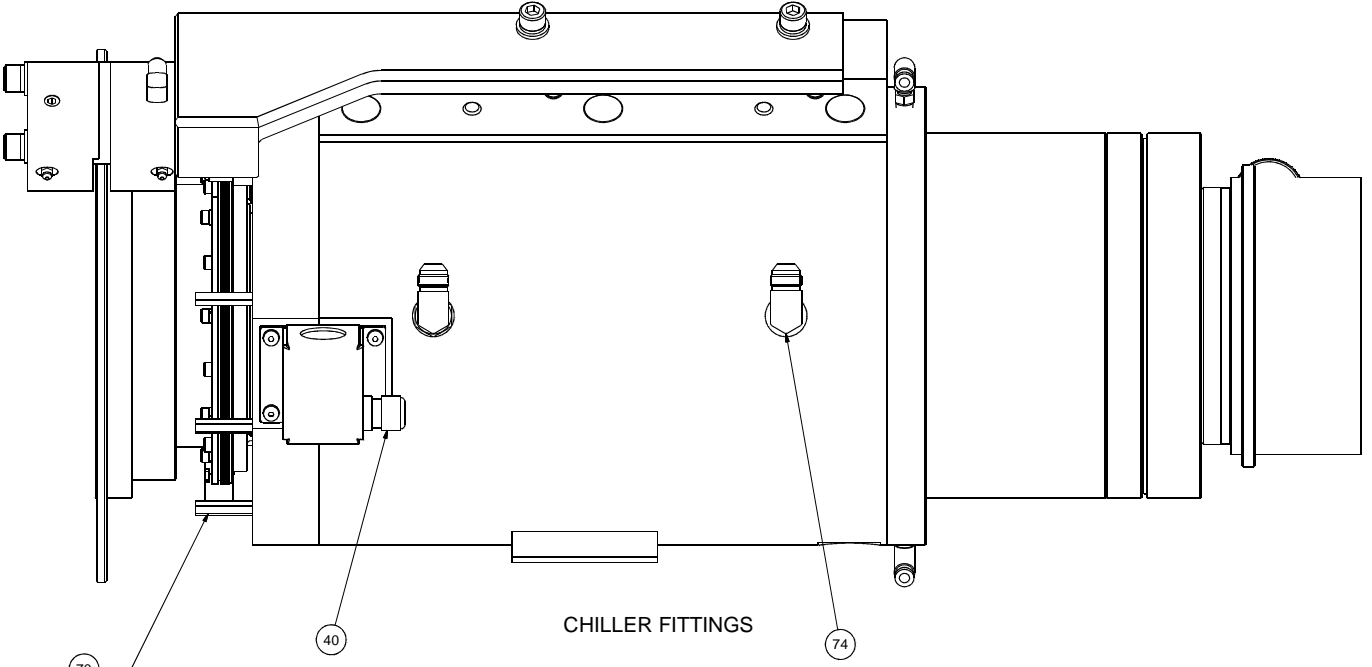
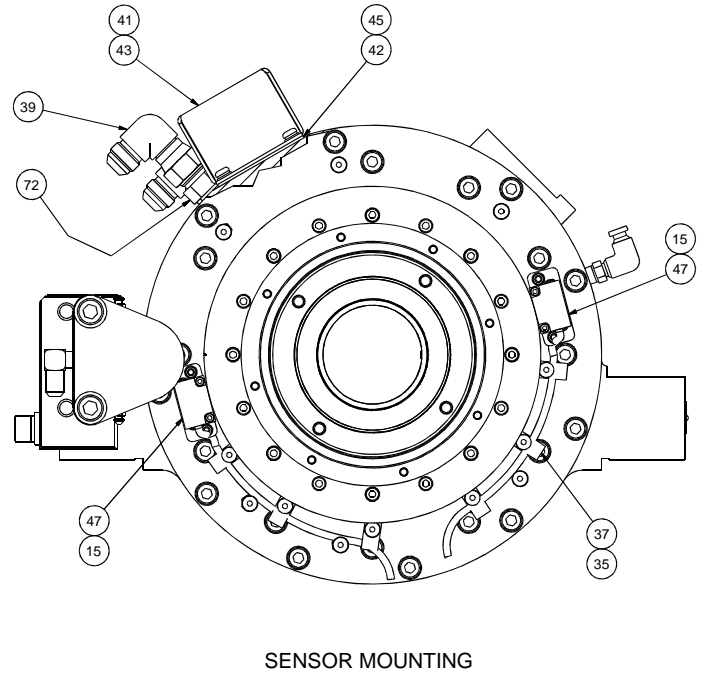
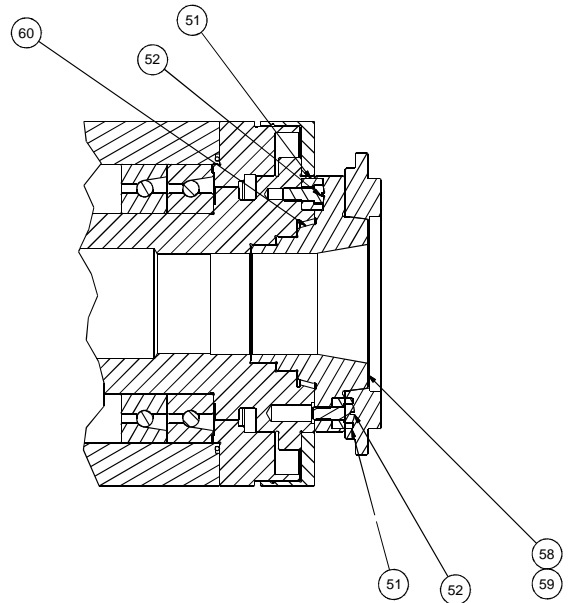
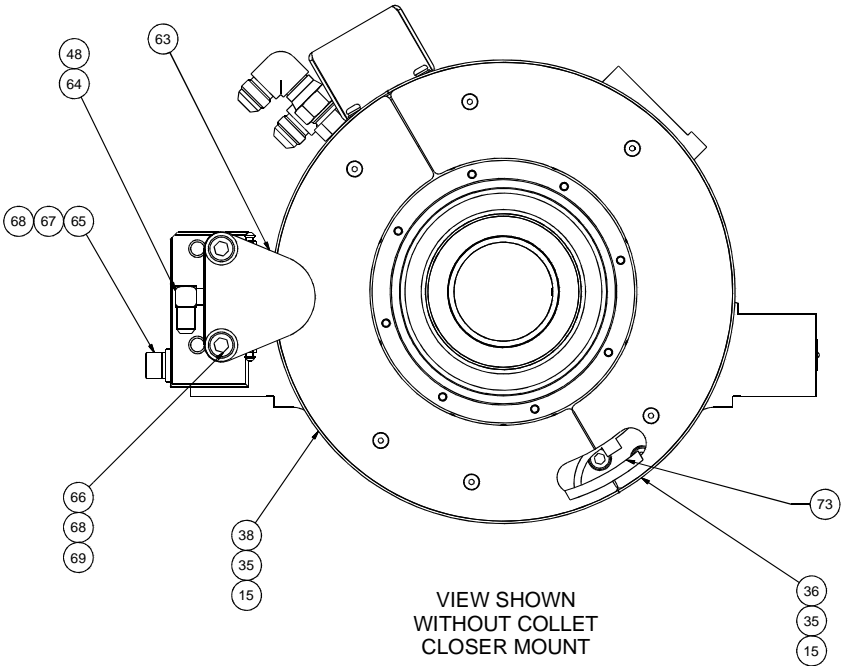
ENCODER RING DETAIL



FRONT BEARING CAP DETAIL



HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-51, CFS SPINDLE  
DQ 000002HBS



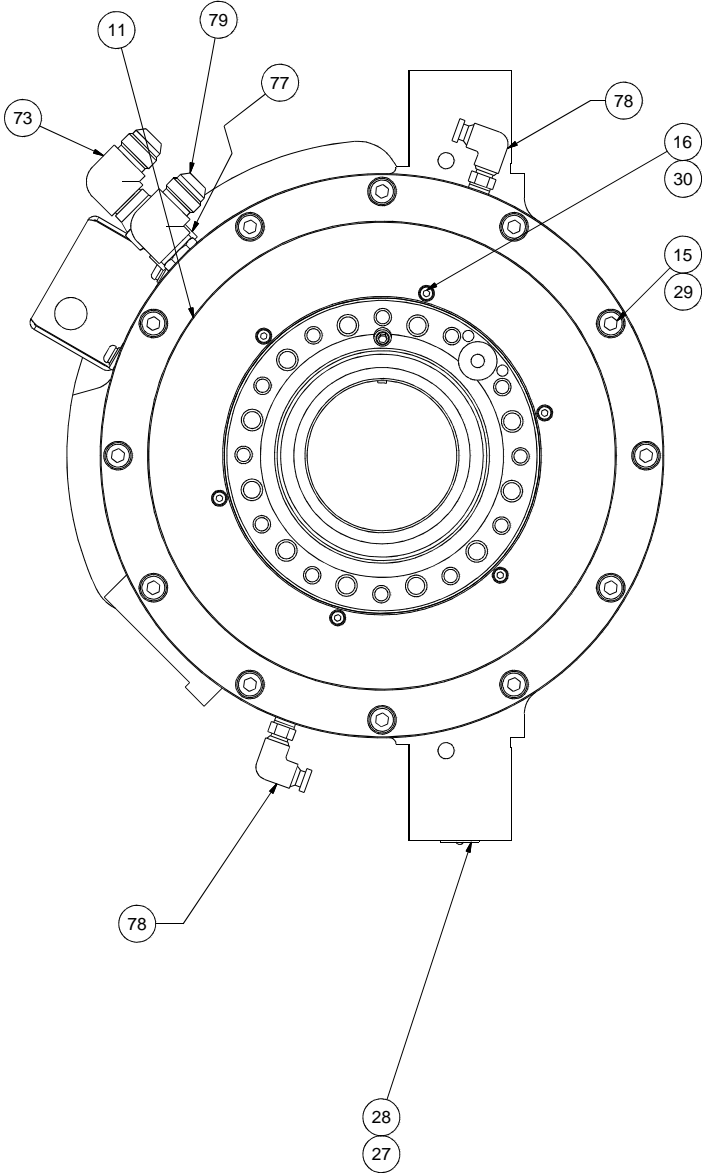
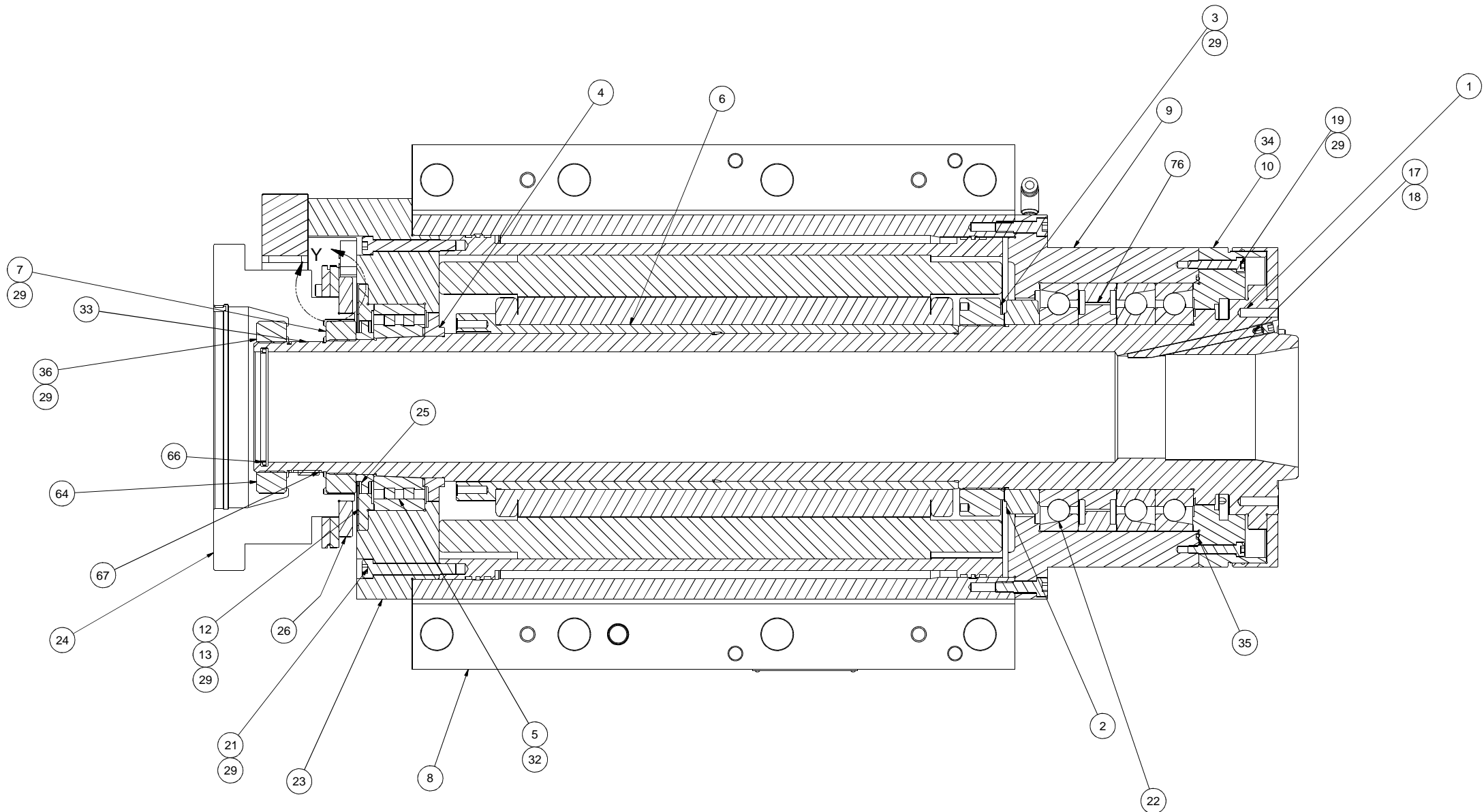
HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-51, CFS SPINDLE  
DQ 000002HBS

Headstock Assembly, Main Spindle, T-51 Lathe, CFS Spindle

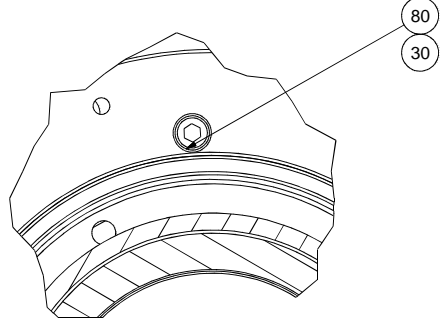
ITEM	PART NUMBER	QTY	DESCRIPTION
2	QC_000406801BL	1	NUT
3	QC 0000265RESR	1	ROLLER BEARING, REAR
4	DQ 001048103	1	SPACER, BEARING
5	DQ 0000264	1	HEAD FRAME T-51 MAIN
6	DQ 0000275	1	CAP, HEADSTOCK
7	DQ 0000283SL	1	SLINGER, SPINDLE
8	DQ 001117606CZCR	1	HOUSING, REAR BEARING
9	DQ 0004937	1	RETAINER, REAR BEARING T-51
10	DQ 0000283HBS	1	SPINDLE, HARDINGE FLEX
11	QC 0001535	1	LABEL, MODULE
12	DQ 00111760551	1	HOUSING, FRONT BEARING T-51
13	DQ 001179305	1	ROTOR ASSEMBLY, T-51
14	NC 0010884	0.2	THREADLOCKER, LOCTITE 242
15	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
16	HS 0010994SL	0.02	GREASE
17	KH 001088402	0.1	LOCTITE ADHESIVE, GREEN
18	NT 0006708	2	PIN, PULL OUT DOWEL
19	DQ 001179701CZCR	1	MOUNT, COLLET CLOSER
20	MS 0103518	8	SCREW, SHC, M5X0.8X20MM
21	MW 0193510	8	WASHER, LOCK, M5
22	MS 0103516	8	SCREW, SHC, M5X0.8X12MM
23	QD 0000265 R	1	BEARING, 110BNR10TYDB
24	MS 0103515	10	SCREW, SHC, M5X0.8X10MM
25	MS 0103822	10	SCREW, SHC, M8X1.25X40MM
26	MS 0103826	11	SCREW, SHC, M8X1.25X60MM
27	MS 0103820	12	SCREW, SHC, M8X1.25X30MM
28	MS 0103621	12	SCREW, SHC, M6X1X35MM
29	MS 0103415	6	SCREW, SHC, M4X0.7X10MM
30	MS 0553815	1	SCREW, SET, CUP, M8X1.25X10
31	R 0008044	2	PIN, ESCUTCHEON
32	OR 0000608	2	O-RING
33	OR 0108112	1	O RING
34	DQ 0011797AD	1	ADAPTER, CZ RING
35	MS 0303515SA	12	SCREW ASSEMBLY, BH M5X.8X10
36	DQ 0010115CZ2LB	1	COVER, C AXIS RIGHT
37	GK 0006966	6	CLAMP, HOSE 4 MM SINGLE
38	DQ 0010115CZ1LB	1	COVER, C AXIS LEFT
39	CS 000838406	1	ELBOW, 90 DEGREE -8 SWIVEL
40	ML 000920716A	1	CORD GRIP, 16MM

ITEM	PART NUMBER	QTY	DESCRIPTION
41	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
42	QC 001011602	1	GASKET, COVER WIRING
43	DQ 0010115HDS2	1	COVER, SPINDLE WIRING
44	VS 0010440	0.1	LUBRICATION, ANTI-SEIZE
45	ML 0010884	0.2	ADHESIVE, 3M
46	CS 001088406	0.1	THREADLOCKER, LOCTITE 290
47	MS 0103318	4	SCREW, SHC, M3X0.5X20MM
48	SB 0010884 S	0.1	SEALANT, HYDRAULIC
49	S 001070007	1	LEE PLUG, 0.281
50	QCA001119806	1	LIP SEAL, SPINDLE
51	CL 0011920	2	BUTTON, DRIVING
52	CL 001192001	2	SCREW, BUTTON
53	ST 0007703	2	FITTING, AIR SWIVEL
54	EQ 0004068	1	NUT
56	CQ 000405751	1	SPACER, BEARING
57	QCA0006317	1	KEY
58	DQ 0000283AD	1	ADAPTER, HARDINGE COLLET
59	MS 0104219	6	SCREW, SHC, M12X1.75X25MM
60	DQ 0011792CX	1	RING, CENTREX
61	DQ 0000284HBS	1	SCREW, COLLET KEY
62	DQ 0000221BRAKE	1	BRACKET, BRAKE
63	CSB0010462 A	1	BRAKE SPINDLE
64	AD 001133804	1	ELBOW, 90 DEGREE
65	MS 0104022	2	SCREW, SHC, M10X1.5X40MM
66	MS_0104034	2	SCREW, SHC, M10X1.5X120MM
67	MW 0104010 H	2	WASHER, FLAT, HARD, M10
68	MW 0194010	4	WASHER, LOCK, M10
69	MW 0104010	2	WASHER, FLAT, M10
70	DQ 001019035	6	STANDOFF, M5 x 35MM
71	CL 0010389	1	SPACER ASSEMBLY
72	HS 000770393	1	ADAPTER, -6 SAE M TO -8 JIC M
73	SB 001056504	2"	U CHANNEL
74	CQ 000770226	1	ELBOW, -8 JIC X -6 SAE 90 DEGREE

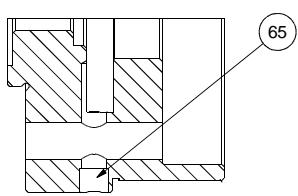




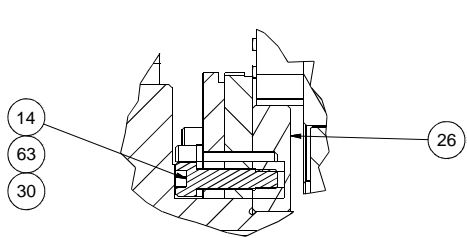
CZ RING ADAPTER DETAIL



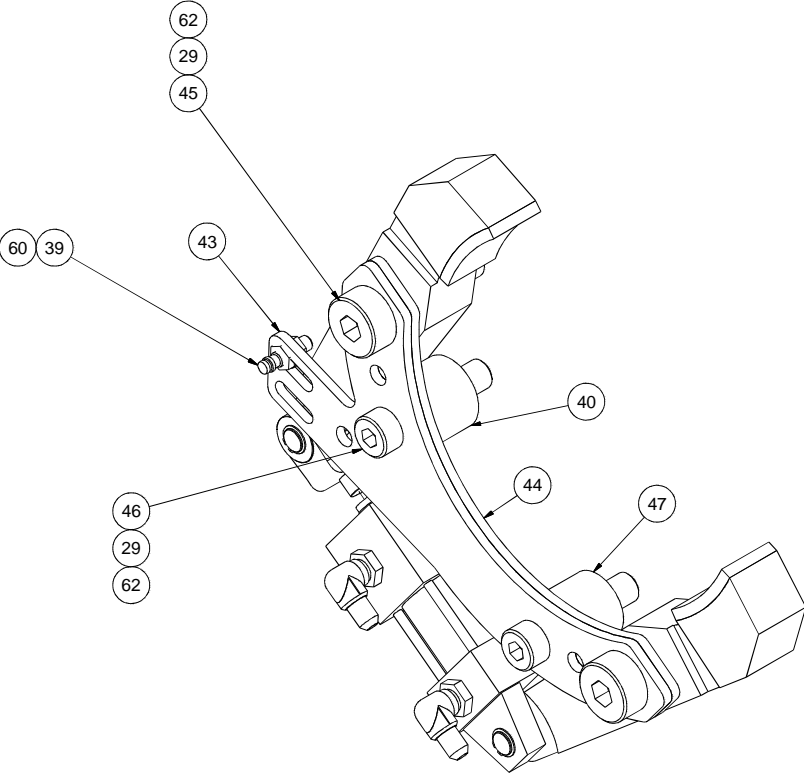
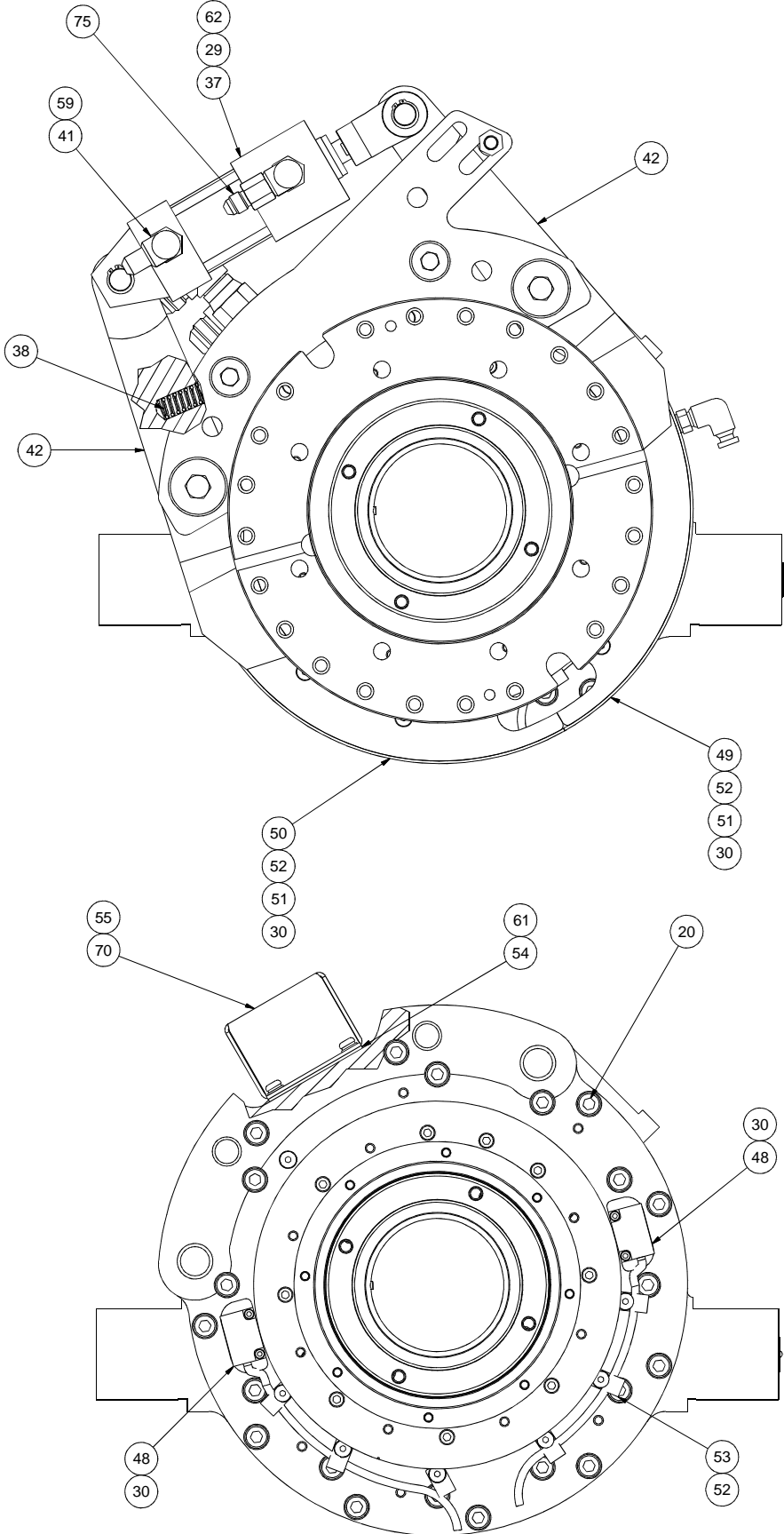
FRONT BEARING CAP DETAIL



ENCODER RING DETAIL



HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-65  
EQ 000002CZ

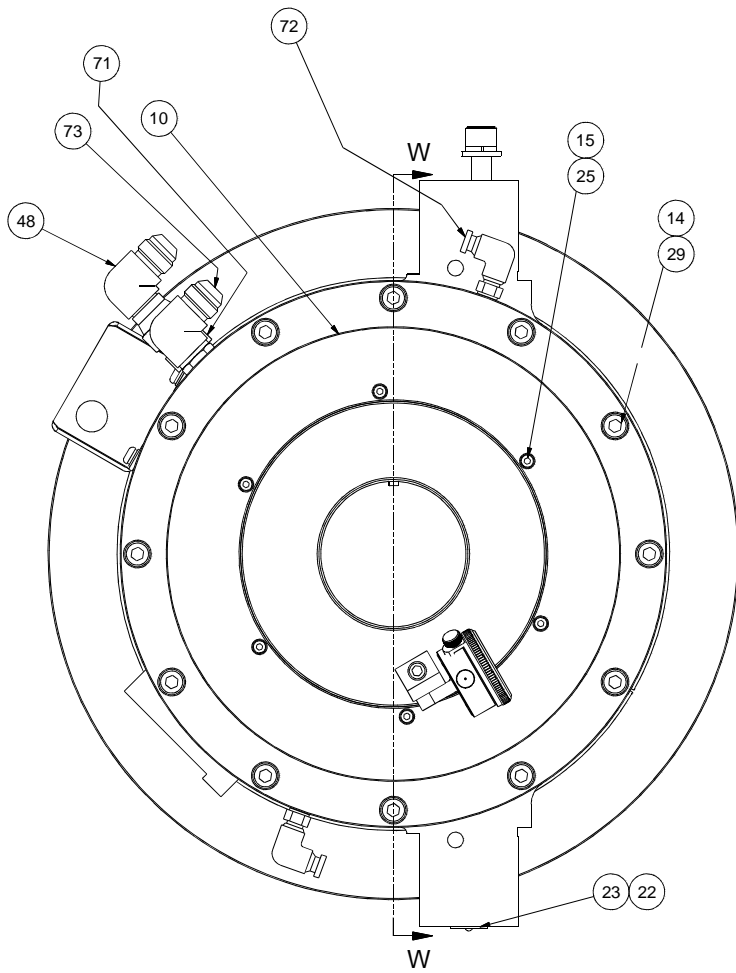
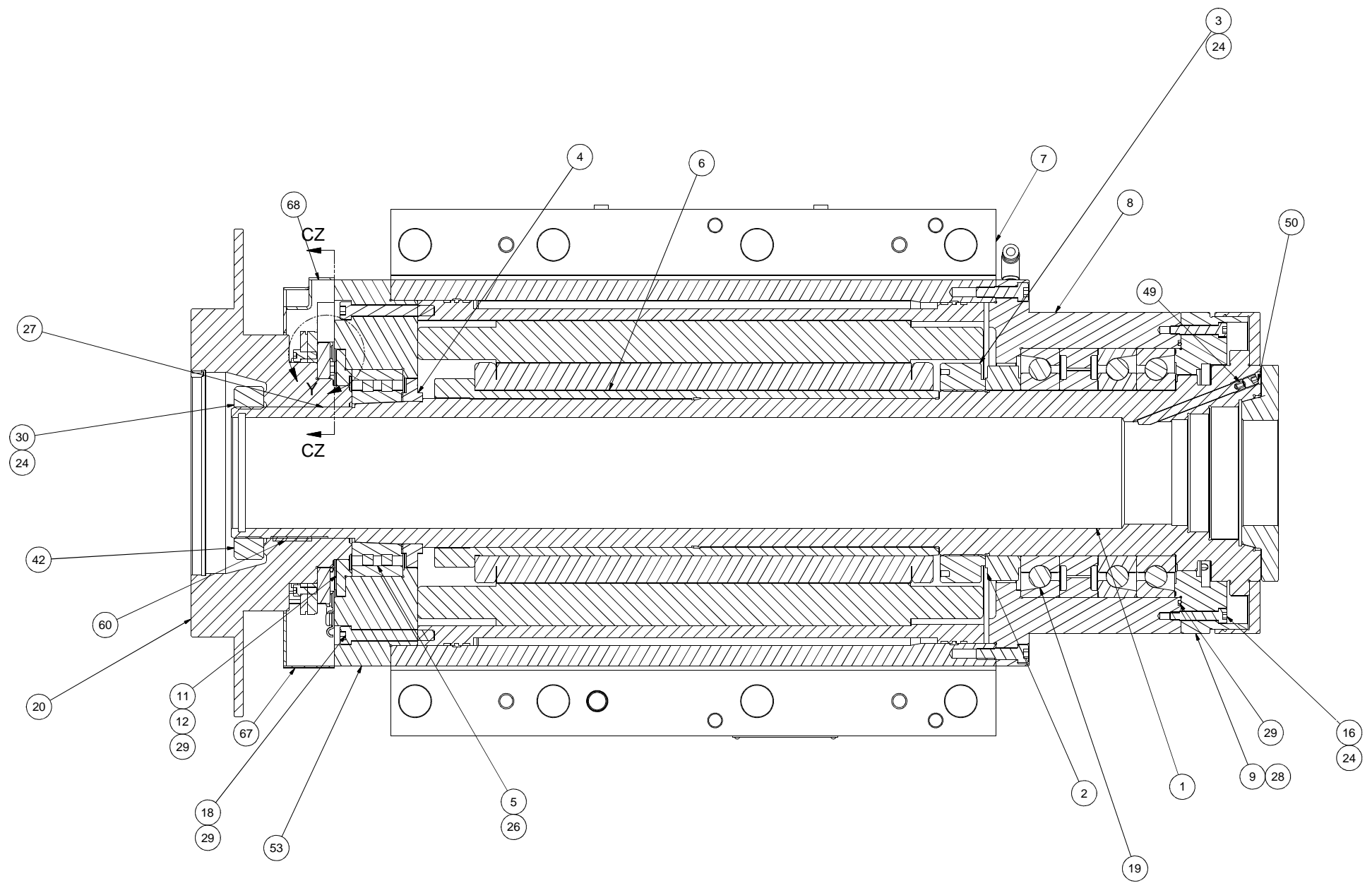


BRAKE VIEW

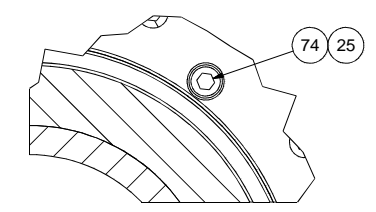
HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-65  
EQ 000002CZ

Headstock Assembly, Main Spindle, T-65 Lathe

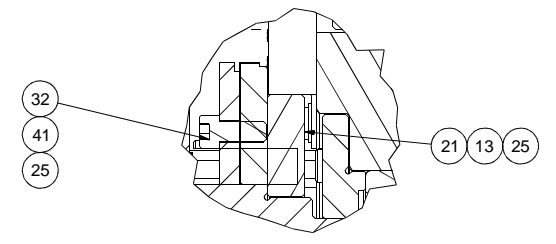
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	EQ 0000283	1	SPINDLE, T-65	41	QC 000770202	2	ELBOW, 90 DEGREE
2	EQ 0004057	1	SPACER, BEARING	42	QCD0000501BL	2	LEVER, SPINDLE BRAKE ASSEMBLY
3	CL 000406806	1	NUT, SPINDLE	43	QC_0001990P2BL	1	PLATE, BRAKE SWITCH HOLDER
4	DQ 001048103	1	SPACER, BEARING	44	QC_0001990P1BL	1	PLATE, SPINDLE BRAKE
5	QC 0000265RESR	1	ROLLER BEARING, REAR	45	0122028	2	SHOULDER SCREW, 3/4-10X1.75
6	EQ 001179305	1	ROTOR ASSEMBLY, T-65	46	0121828	2	SHOULDER SCREW, 5/8-11X1.75
7	CL 000406804	1	NUT, SPINDLE	47	TT_0010481	1	SPACER, SPINDLE BRAKE 1.45" DIA.
8	EQ 0000264	1	HEAD FRAME, T-65 MAIN	48	MS 0103318	4	SCREW, SHC, M3X0.5X20MM
9	EQ 001117605	1	HOUSING, FRONT BEARING T-65	49	DQ 0010115CZ2	1	COVER, C AXIS RIGHT
10	EQ 0000275	1	CAP, HEADSTOCK	50	DQ 0010115CZ1	1	COVER, C AXIS LEFT
11	EQ 0000283SL	1	SLINGER, SPINDLE	51	DQ 001019030	6	STANDOFF, M5X30MM
12	DQ 0004937	1	RETAINER, REAR BEARING	52	MS 0303515SA	12	SCREW ASSEMBLY, BH M5X.8X10
13	MS 0103515	10	SCREW, SHC, M5X0.8X10MM	53	GK 0006966	6	CLAMP, HOSE 4 MM SINGLE
14	MS 0103518	8	SCREW, SHC, M5X0.8X20MM	54	QC 001011602	1	GASKET, COVER WIRING
15	MS 0103820	12	SCREW, SHC, M8X1.25X30MM	55	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
16	MS 0103415	6	SCREW, SHC, M4X0.7X10MM	59	SB 0010884 S	0.06	SEALANT, HYDRAULIC
17	QD 0000284	1	SCREW, COLLET KEY	60	CS 001088406	0.03	THREADLOCKER, LOCTITE 290
18	MS 0553814	1	SCREW, SET, CUP, M8X1.25X8	61	ML 0010884	0.02	ADHESIVE, 3M
19	MS 0103621	12	SCREW, SHC, M6X1X35MM	62	VS 0010440	0.02	LUBRICATION, ANTI-SEIZE
20	MS 0103822	10	SCREW, SHC, M8X1.25X40MM	63	MW 0193510	8	WASHER, LOCK, M5
21	MS 0103826	11	SCREW, SHC, M8X1.25X60MM	64	NT 0006708	1	PIN, PULL OUT DOWEL
22	QD 0000265FCB	1	BEARING SET	65	S 001070007	1	LEE PLUG 0.281
23	DQ 001117606CZ	1	HOUSING, REAR BEARING	66	QDA001119806	1	LIP SEAL, SPINDLE
24	EQ 001179701CZ3	1	MOUNT, COLLET CLOSER	67	DQ 0006317SPDL	1	KEY, T51 & T65 SPINDLE
25	DQ 001048102	1	SPACER, BEARING	68	CL 001192001	1	SCREW, BUTTON
26	DQ 0011797AD	1	ADAPTER, CZ RING	69	CL 0011920	1	BUTTON, DRIVING
27	R 0008044	2	PIN, ESCUTCHEON	70	DQ 0010115HDS2	1	COVER, SPINDLE WIRING
28	QC 0001535	1	LABEL, MODULE	73	CS 000838406	1	ELBOW, 90 DEGREE -8 SWIVEL
29	NC 0010884	0.61	THREADLOCKER, LOCTITE 242	74	SB 001056504	3"	U CHANNEL
30	NC 001088402	0.38	THREADLOCKER, LOCTITE 222	75	CQ 000770227	1	CONNECTOR, STRAIGHT -4 JIC X -JIC FEM
32	HS 0010994SL	0.03	GREASE	76	CL 0010389BB	1	SPACER ASSEMBLY
33	KH 001088402	0.03	LOCTITE ADHESIVE, GREEN	77	HS 000770393	1	ADAPTER, -6 SAE M TO -8 JIC M
34	OR 0000608	2	O-RING	78	ST 0007703	2	FITTING, AIR SWIVEL
35	OR 0116119	1	O-RING	79	CQ 000770226	1	ELBOW, -8 JIC X -6 SAE 90 DEGREE
36	EQ 0004068	1	NUT	80	MS 0103516	8	SCREW, SHC, M5X0.8X12MM
37	SR 0000501BC	1	CYLINDER, SPINDLE BRAKE				
38	TT 000733501	1	SPRING				
39	TT 001022401	1	SWITCH, SPINDLE BRAKE				
40	QCA0010481 B	1	SPACER, SPINDLE BRAKE, 1.56" DIA.				



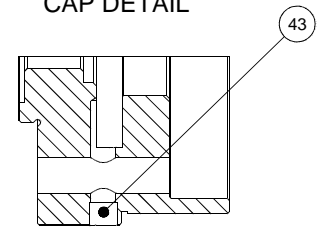
DETAIL CZ HARDWARE



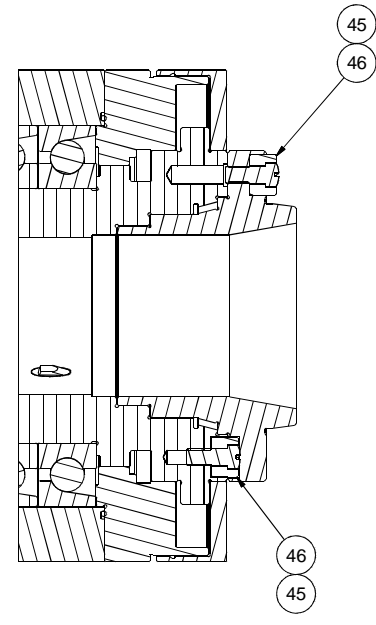
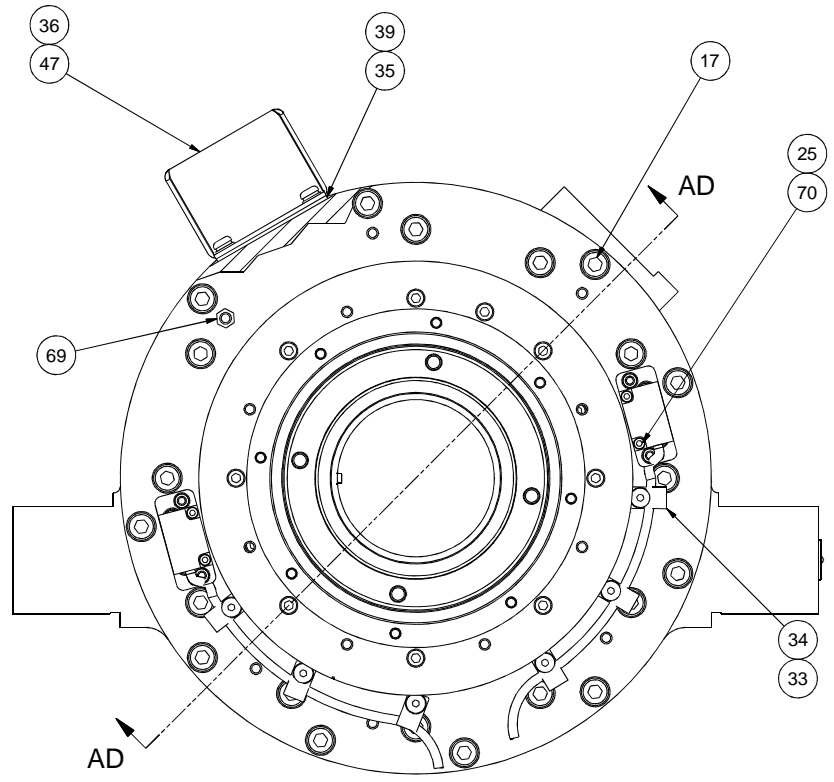
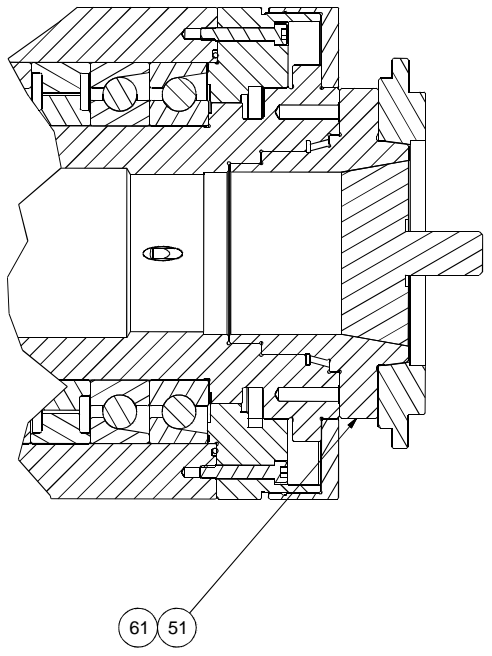
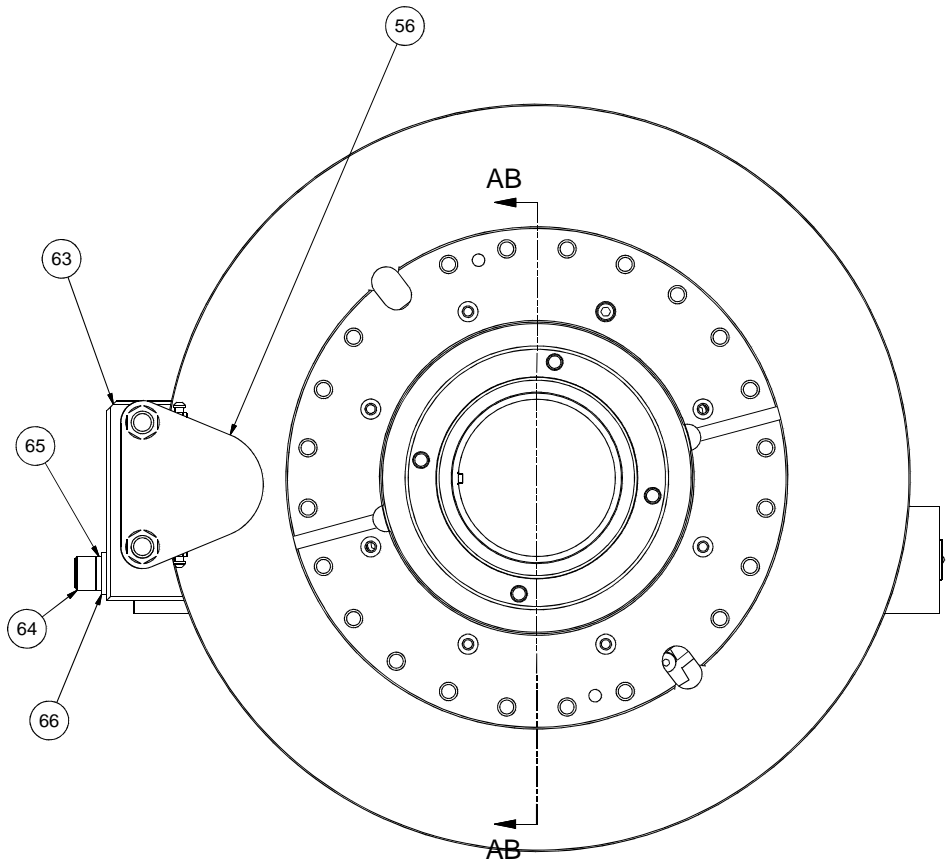
ENCODER RING DETAIL



FRONT BEARING CAP DETAIL



HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-65, CFS SPINDLE  
EQ 000002HBS



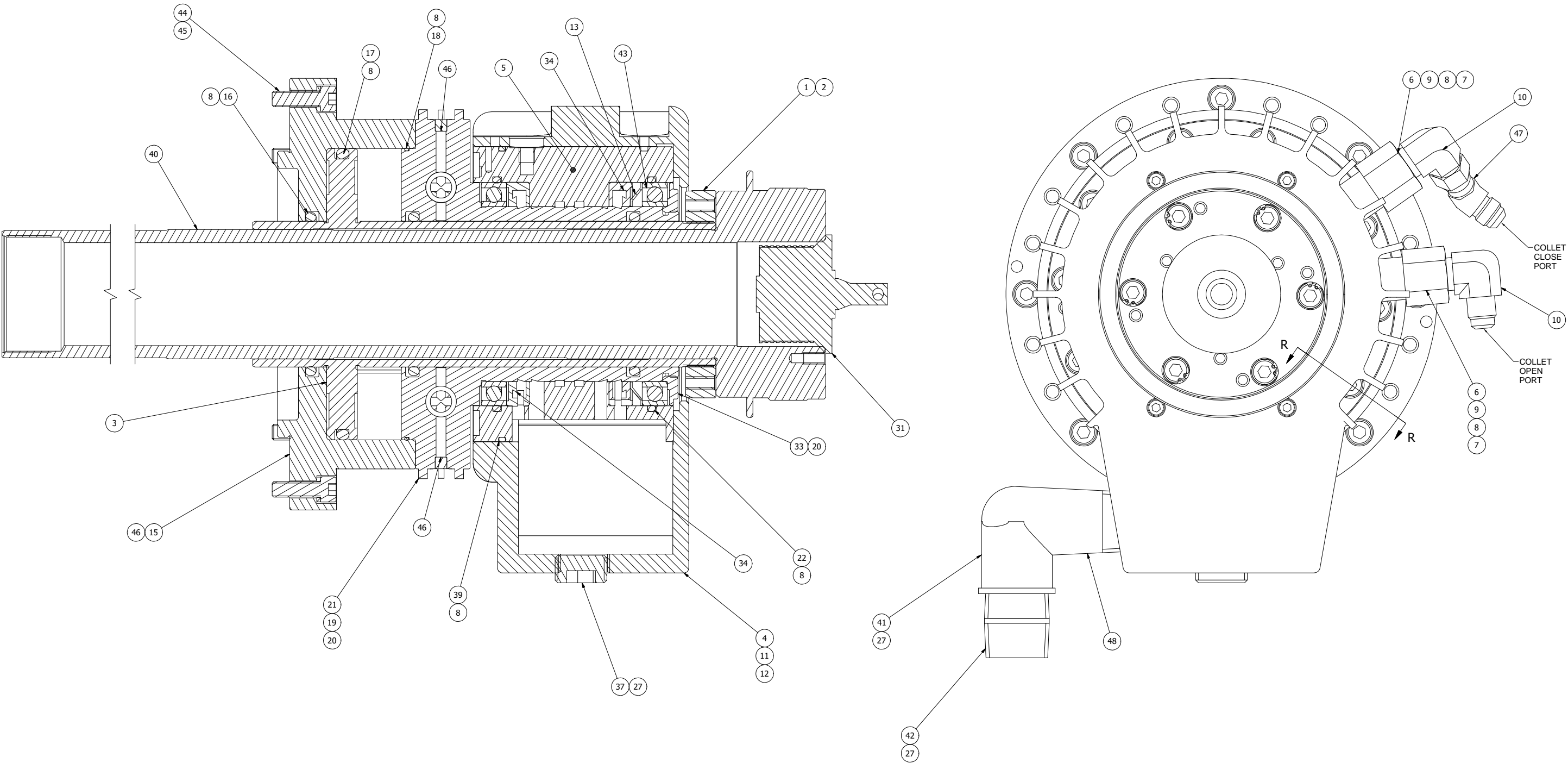
SECTION AD-AD

HEADSTOCK ASSEMBLY, MAIN SPINDLE, T-65, CFS SPINDLE  
EQ 000002HBS

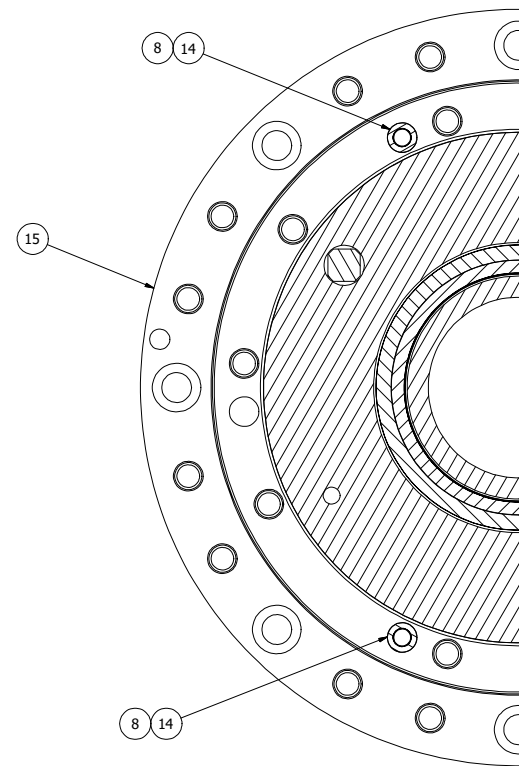
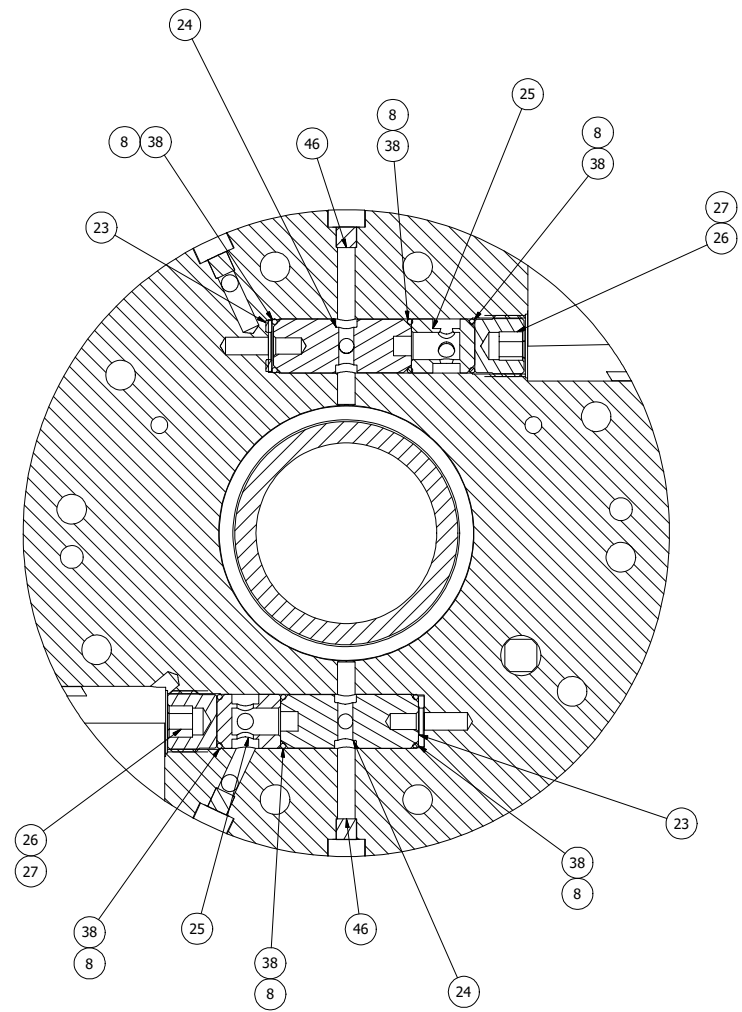
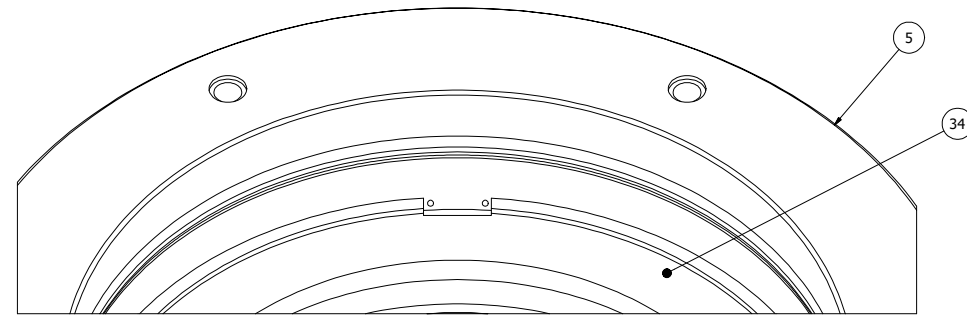
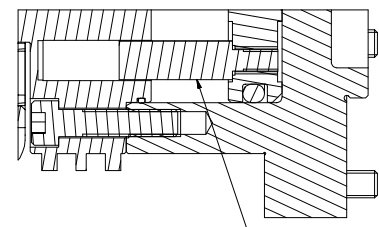
**Headstock Assembly, Main Spindle, T-65 Lathe, CFS Spindle**

ITEM	PART NUMBER	QTY	DESCRIPTION
1	EQ 0000283HBS	1	SPINDLE, T-65 CFS
2	EQ 0004057	1	SPACER, BEARING
3	CL 000406806	1	NUT, SPINDLE
4	DQ 001048103	1	SPACER, BEARING
5	QC 0000265RESR	1	ROLLER BEARING, REAR
6	EQ 001179305	1	ROTOR ASSEMBLY, T-65
7	EQ 0000264 A	1	HEAD FRAME, T-65 MAIN
8	EQ 001117605	1	HOUSING, FRONT BEARING T-65
9	EQ 0000275	1	CAP, HEADSTOCK
10	EQ 0000283SL	1	SLINGER, SPINDLE
11	DQ 0004937	1	RETAINER, REAR BEARING
12	MS 0103515	10	SCREW, SHC, M5X0.8X10MM
13	MS 0103518	8	SCREW, SHC, M5X0.8X20MM
14	MS 0103820	12	SCREW, SHC, M8X1.25X30MM
15	MS 0103415	6	SCREW, SHC, M4X0.7X10MM
16	MS 0103621	12	SCREW, SHC, M6X1X35MM
17	MS 0103822	10	SCREW, SHC, M8X1.25X40MM
18	MS 0103826	11	SCREW, SHC, M8X1.25X60MM
19	QD 0000265FCB	1	BEARING SET
20	EQ 001179701CZ3CR	1	MOUNT, COLLET CLOSER
21	DQ 0011797AD	1	ADAPTER, CZ RING
22	R 0008044	2	PIN, ESCUTCHEON
23	QC 0001535	1	LABEL, MODULE
24	NC 0010884	0.47	THREADLOCKER, LOCTITE 242
25	NC 001088402	0.44	THREADLOCKER, LOCTITE 222
26	HS 0010994SL	0.06	GREASE
27	KH 001088402	0.03	LOCTITE ADHESIVE, GREEN
28	OR 0000608	2	O-RING
29	OR 0116119	1	O-RING
30	EQ 0004068	1	NUT
33	MS 0303515SA	12	SCREW ASSEMBLY, BH M5X.8X10
34	GK 0006966	6	CLAMP, HOSE 4 MM SINGLE
35	QC 001011602	1	GASKET, COVER WIRING
36	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
37	SB 0010884 S	0.06	SEALANT, HYDRAULIC
38	CS 001088406	0.03	THREADLOCKER, LOCTITE 290
39	ML 0010884	0.02	ADHESIVE, 3M
40	VS 0010440	0.02	LUBRICATION, ANTI-SEIZE

ITEM	PART NUMBER	QTY	DESCRIPTION
41	MW 0193510	8	WASHER, LOCK, M5
42	NT 0006708	1	PIN, PULL OUT DOWEL
43	S 001070007	1	LEE PLUG, 0.281
44	QDA001119806	1	LIP SEAL, SPINDLE
45	CL 001192001	2	SCREW, BUTTON
46	CL 0011920	2	BUTTON, DRIVING
47	DQ 0010115HDS2	1	COVER, SPINDLE WIRING
48	CS 000838406	1	ELBOW, 90 DEGREE -8 SWIVEL
49	EQ 0000284	1	KEY, COLLET
50	MS 0553815	1	SCREW, SET, CUP, M8X1.25X10
51	EQ 0000283AD	1	ADAPTER, HARDINGE COLLET
52	EQ 0011792CX	1	CENTREX RING
53	DQ 001117606CZCR	1	HOUSING, REAR BEARING
56	CSB0010462 A	1	BRAKE SPINDLE
60	QCA0006317	1	KEY
61	MS 0104219	6	SCREW, SHC, M12X1.75X25MM
62	CL 0010389BB	1	SPACER ASSEMBLY
63	DQ 0000221BRAKE	1	BRACKET, BRAKE
64	MS 0104022	2	SCREW, SHC, M10X1.5X40MM
65	MW 0194010	2	WASHER, LOCK, M10
66	MW 0104010 H	2	WASHER, FLAT, HARD, M10
67	EQ 0010115CZ2LB	1	COVER, C AXIS RIGHT
68	EQ 0010115CZ1LB	1	COVER, C AXIS LEFT
69	DQ 001019035	6	STANDOFF, M5X35MM
70	MS 0103318	4	SCREW, SHC, M3X0.5X20MM
71	HS 000770393	1	ADAPTER, -6 SAEM TO -8 JIC M
72	ST 0007703	2	FITTING, AIR SWIVEL
73	CQ 000770226	1	ELBOW, -8 JIC X -6 SAE 90 DEGREE
74	MS 0103516	8	SCREW, SHC, M5X0.8X12MM



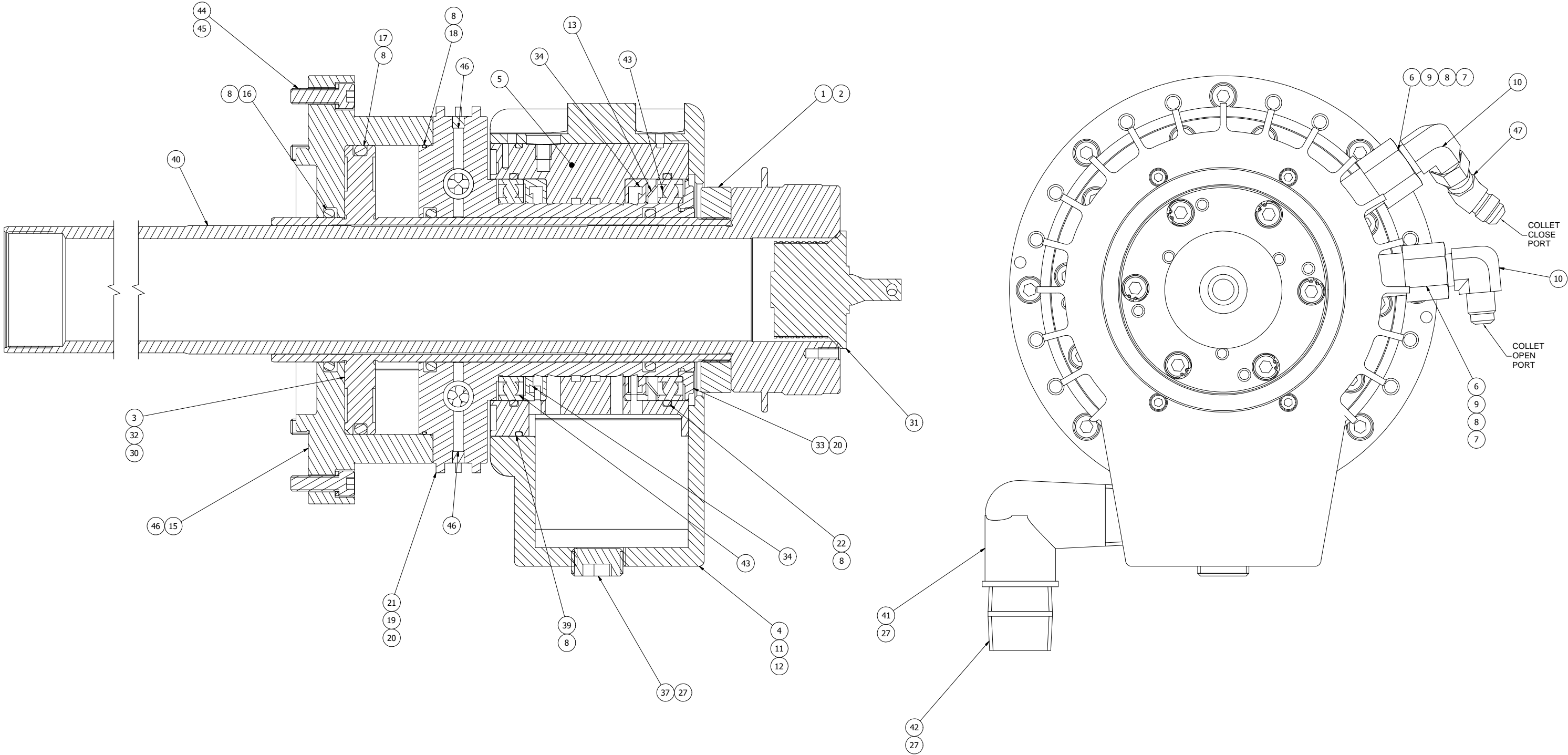
COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 51 MILLIMETER  
DQ 000006



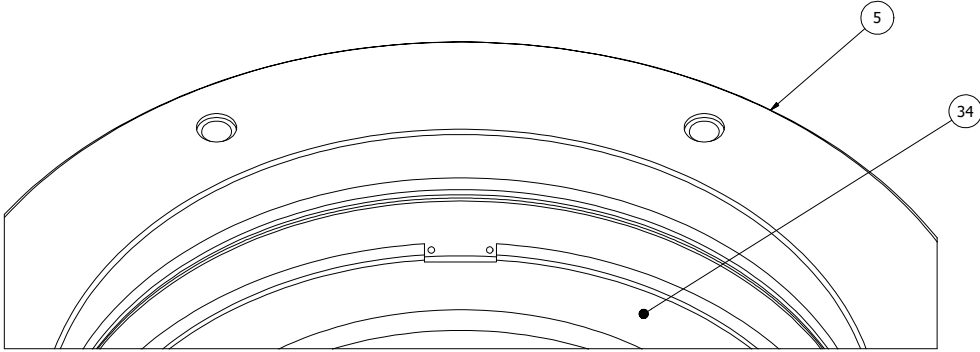
COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 51 MILLIMETER  
DQ 000006



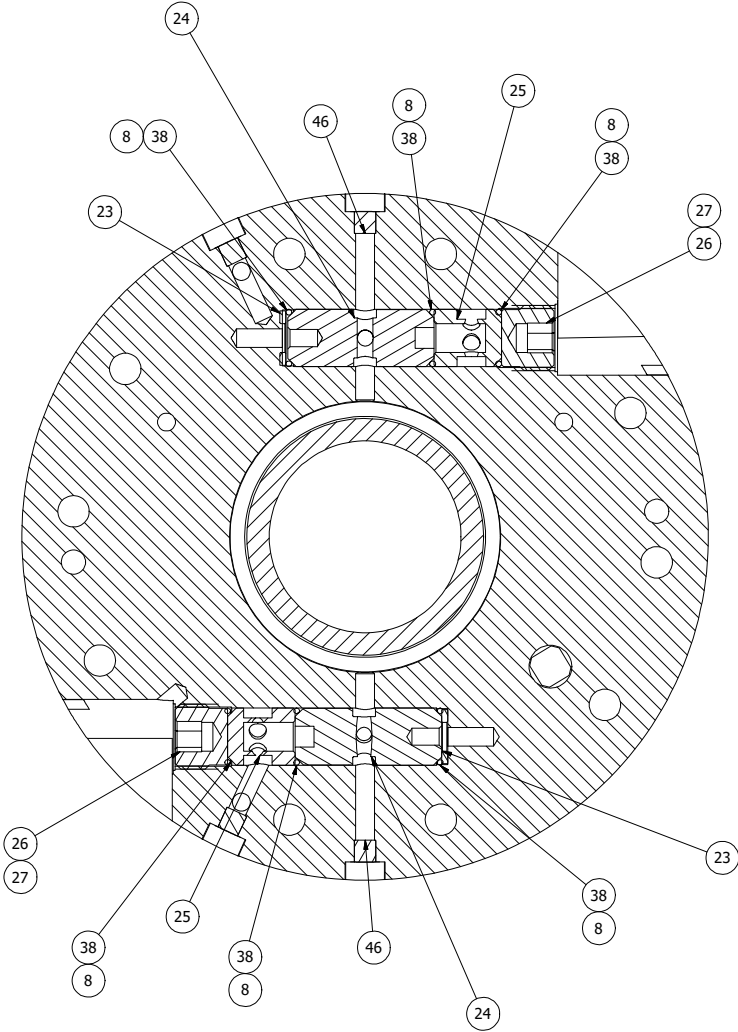
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 000049202	1	NUT, ABUTMENT
2	VL 0010884	.1	THREADLCKER, LOCTITE 277
3	DQ 0009259	1	PISTON, COLLET CLOSER
4	CQ 0004197BB	1	HOUSING, DRAIN
5	CLA000419701	1	BODY, HYDRAULIC INLET
6	CS 001125913	2	FITTING
7	CS 001042102	2	RING FOR ADAPTER
8	RF 0010994	.2	GREASE, M55
9	11 0009431	2	O-RING
10	CS 001125911	2	FITTING, ELBOW
11	MS 0103514	4	SCREW, SHC, M5X0.8X8MM
12	NC 001088402	.1	THREADLOCKER, LOCTITE 222
13	CL 0007335	1	SPRING, WAVE
14	CL 000943102	2	O-RING
15	DQ 0000407	1	CYLINDER, COLLET CLOSER
16	CL 000943101	3	O-RING
17	CL 000943103	1	O-RING
18	QC 000943110	1	O-RING
19	MS 0103821	10	SCREW, SHC, M8X1.25X35MM
20	NC 0010884	.1	THREADLOCKER, LOCTITE 242
21	CL 001076801	1	CAP, PISTON
22	OR 0007276 V	2	O-RING
23	CL 000323001	2	WASHER
24	CLC000304801	2	VALVE, CARTRIDGE LOCK
25	CL 001048101	2	SPACER
26	CL 0004646	2	PLUG, RETAINING
27	SB 0010884 S	.1	SEALANT, HYDRAULIC
28	CS 10994	.3	GREASE, MOBIL 28
30	CN 0010884	.01	RETAINING COMPOUND, LOCTITE 680
31	CL 001197301	1	PLUG, TURN-TITE EXPANSION
32	CLA001114301	1	PIN
33	CL 000049203	1	NUT, ADJUSTING
34	CL 0007852	2	RING, SEALING
37	MD 0003487	1	PLUG, HEX SOCKET PIPE
38	CL 001119804	6	SEAL CARTRIDGE EXTERNAL
39	CS 000943129	1	O-RING
40	DQ 0000480	1	DRAW TUBE, SPINDLE
41	CL 000770301G	1	ELBOW, 1" NPT STREET
42	CL 001010902	1	NIPPLE, 1" NPT CLOSE
43	CLC0008233	2	BEARING, COLLET CLOSER
44	MS 0103819	8	SCREW, SHC, M8X1.25X25MM
45	MW 0193810	8	WASHER, LOCK, M8
46	CL 0007703	6	PLUG, LEE
47	TT 000770235	1	ELBOW, 45 DEGREE -6 SWIVEL
48	H 00095001415	1	TAG, HYDRAULIC PLUG WARNING



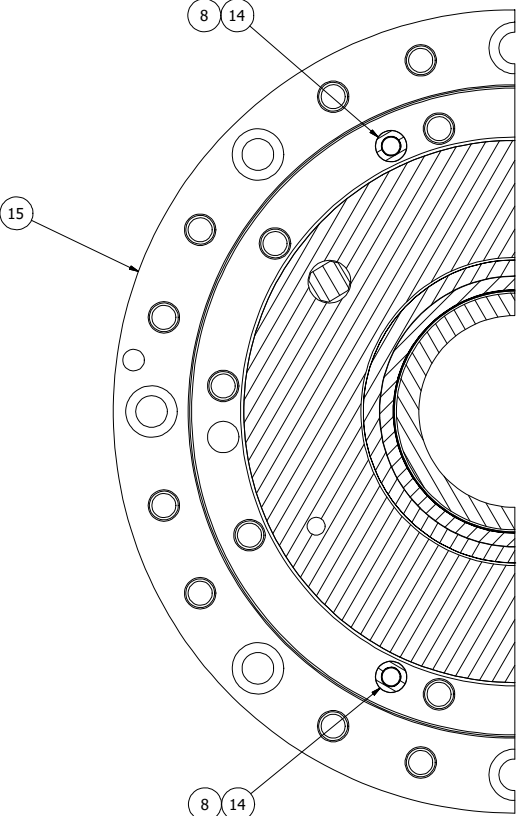
COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 51 MILLIMETER, CFS SPINDLE  
DQ 000006HBS



VIEW 2



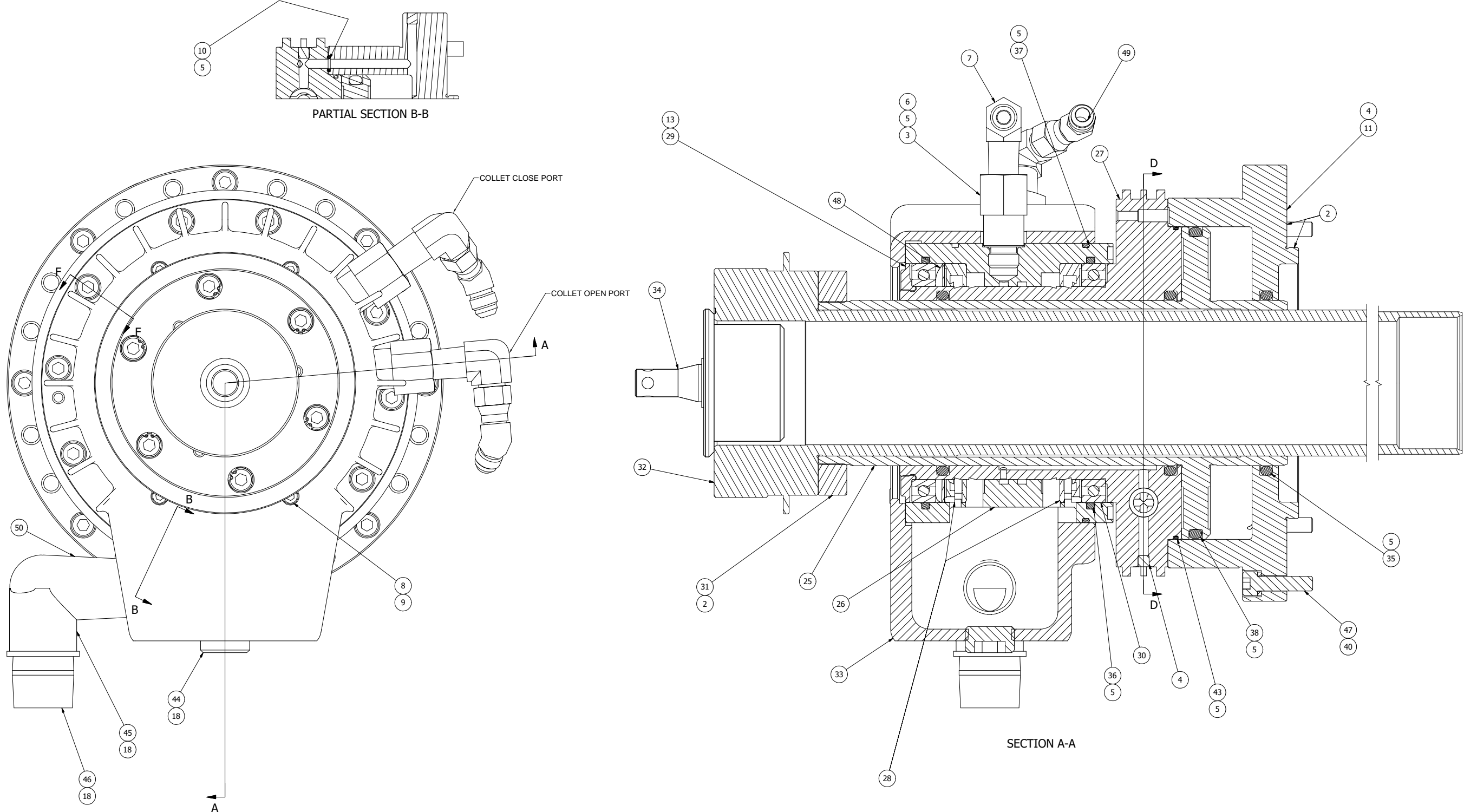
CHECK VALVE ASSEMBLY



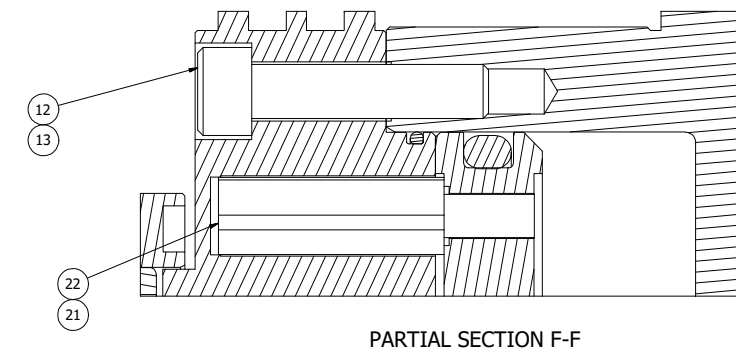
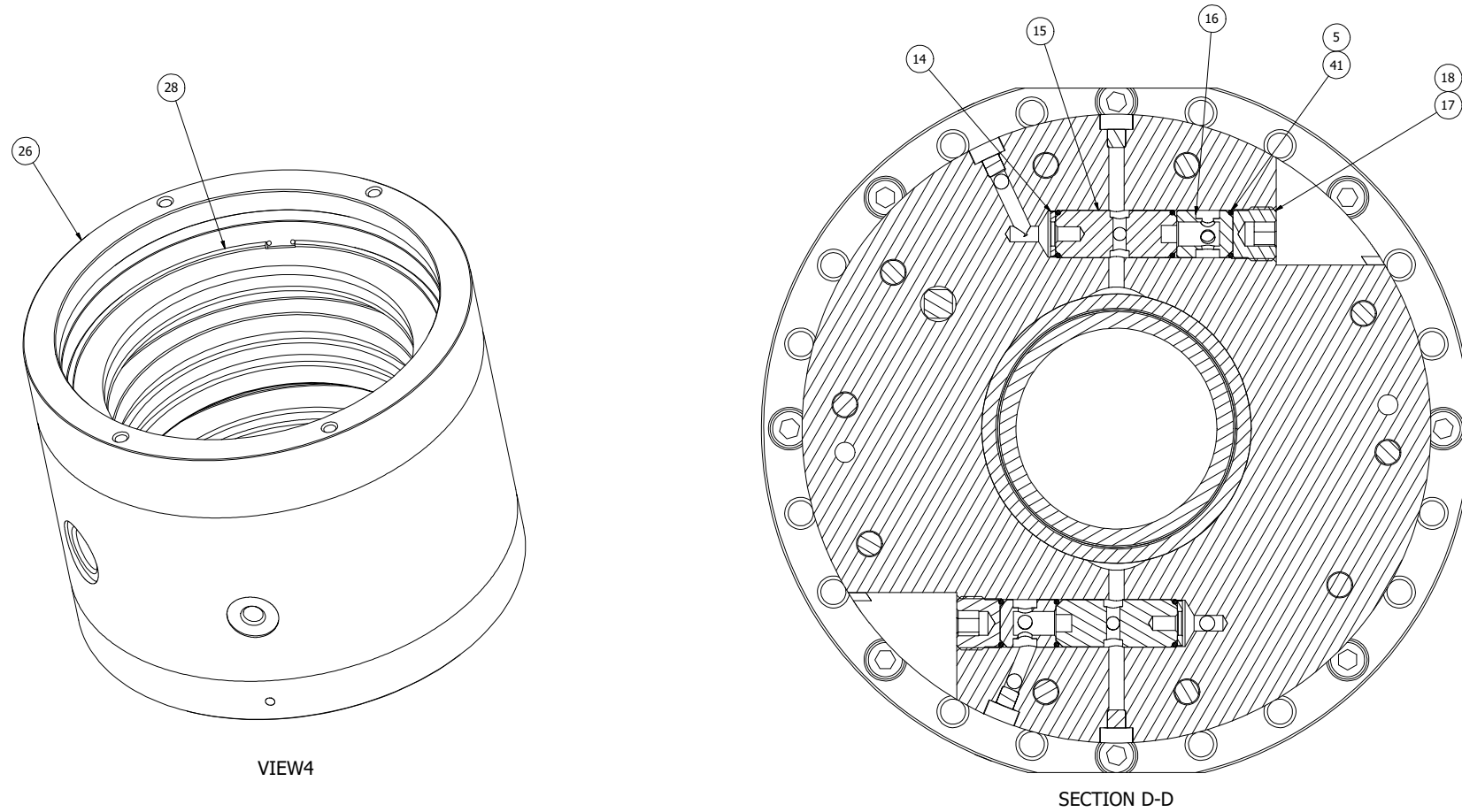
VIEW 3

COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 51 MILLIMETER, CFS SPINDLE  
DQ 000006HBS

ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 000049202	1	NUT, ABUTMENT
2	VL 0010884	.1	THREADLOCKER, LOCTITE 277
3	DQ 0009259	1	PISTON, COLLET CLOSER
4	CQ 0004197BB	1	HOUSING, DRAIN
5	CLA000419701	1	BODY, HYDRAULIC INLET
6	CS 001125913	2	FITTING
7	CS 001042102	2	RING FOR ADAPTER
8	RF 0010994	.2	GREASE, M55
9	11 0009431	2	O-RING
10	CS 001125911	2	FITTING, ELBOW
11	MS 0103514	4	SCREW, SHC, M5X0.8X8MM
12	NC 001088402	.1	THREADLOCKER, LOCTITE 222
13	CL 0007335	1	SPRING, WAVE
14	CL 000943102	2	O-RING
15	DQ 0000407	1	CYLINDER, COLLET CLOSER
16	CL 000943101	3	O-RING
17	CL 000943103	1	O-RING
18	QC 000943110	1	O-RING
19	MS 0103821	10	SCREW, SHC, M8X1.25X35MM
20	NC 0010884	.1	THREADLOCKER, LOCTITE 242
21	CL 001076801	1	CAP, PISTON
22	OR 0007276 V	2	O-RING
23	CL 000323001	2	WASHER
24	CLC000304801	2	VALVE, CARTRIDGE LOCK
25	CL 001048101	2	SPACER
26	CL 0004646	2	PLUG, RETAINING
27	SB 0010884 S	.1	SEALANT, HYDRAULIC
28	CS 0010994	.3	GREASE
30	CN 0010884	1	RETAINING COMPOUND, LOCTITE 680
31	CL 001197301	1	PLUG, TURN-TITE EXPANSION
32	CLA001114301	1	PIN
33	CL 000049203	1	NUT, ADJUSTING
34	CL 0007852	2	RING, SEALING
37	MD 0003487	1	PLUG, HEX SOCKET PIPE
38	CL 001119804	6	SEAL, CARTRIDGE EXTERNAL
39	CS 000943129	1	O-RING
40	DQ 0000480HBS	1	DRAW TUBE, SPINDLE
41	CL 000770301G	1	ELBOW, 1" NPT STREET
42	CL 001010902	1	NIPPLE, 1" NPT CLOSE
43	CLC0008233	2	BEARING, COLLET CLOSER
44	MS 0103819	8	SCREW, SHC, M8X1.25X25MM
45	MW 0193810	8	WASHER, LOCK, M8
46	CL 0007703	6	PLUG, LEE
47	TT 000770235	1	ELBOW, 45 DEGREE -6 SWIVEL
48	H 00095001415	1	TAG, HYDRAULIC PLUG WARNING

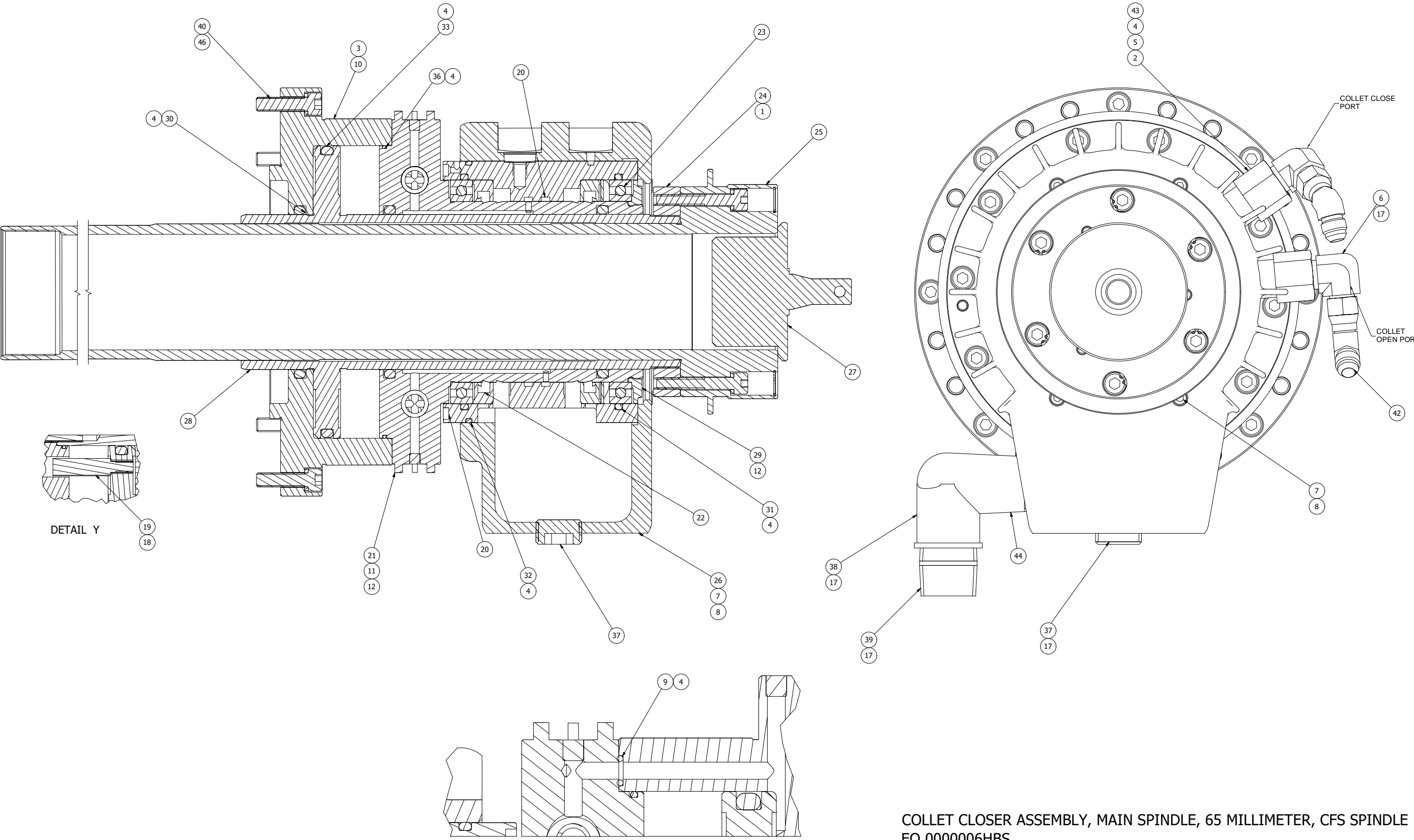


COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 65 MILLIMETER EQ 000006



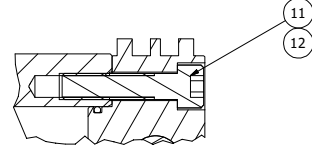
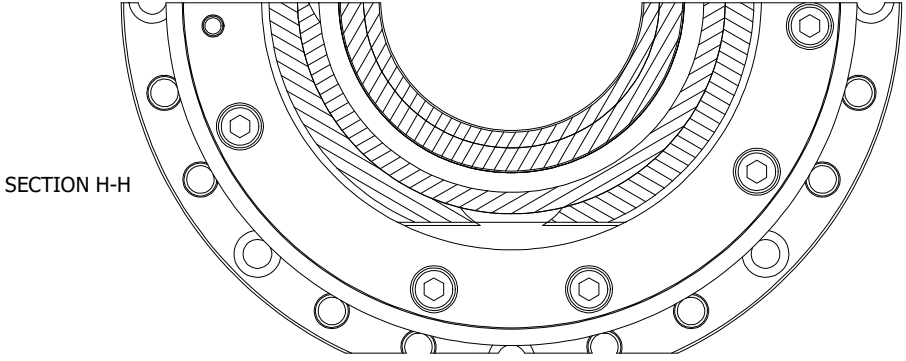
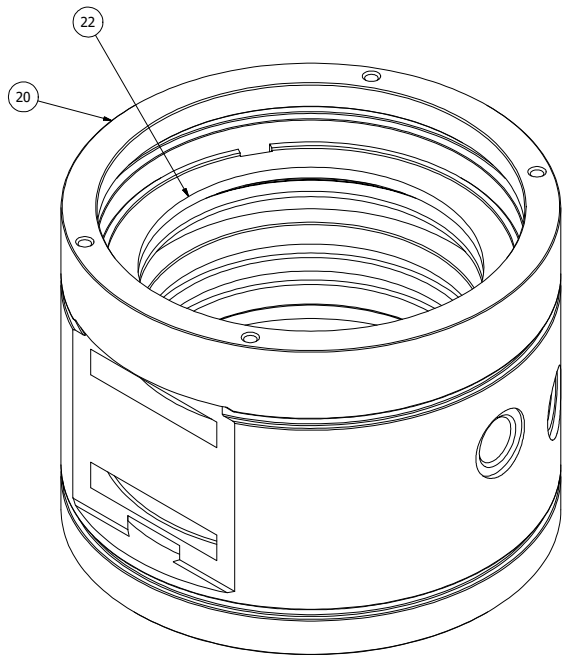
COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 65 MILLIMETER  
EQ 000006

ITEM	PART NUMBER	QTY	DESCRIPTION
2	VL 0010884	.01	THREADLOCKER, LOCTITE 277
3	CS 001125913	2	FITTING
4	CL 0007703	6	PLUG, LEE
5	RF 0010994	.09	GREASE, M55
6	11 0009431	2	O-RING
7	CS 001125911	2	FITTING, ELBOW
8	MS 0103514	4	SCREW, SHC, M5X0.8X8MM
9	NC 001088402	.06	THREADLOCKER, LOCTITE 222
10	CL 000943102	2	O-RING
11	EQ 0000407	1	CYLINDER, COLLET CLOSER
12	MS 0103821	10	SCREW, SHC, M8X1.25X35MM
13	NC 0010884	.06	THREADLOCKER, LOCTITE 242
14	CL 000323001	2	WASHER
15	CLC000304801	2	VALVE, CARTRIDGE LOCK
16	CL 001048101	2	SPACER
17	CL 0004646	2	PLUG, RETAINING
18	SB 0010884 S	.02	SEALANT, HYDRAULIC
19	CS 0010994	.01	GREASE, MOBIL 28
21	CN 0010884	.02	RETAINING COMPOUND, LOCTITE 680
22	CLA001114301	1	PIN
25	QD 0009259HBL	1	PISTON, COLLET CLOSER
26	CLA000419703	1	BODY, HYDRAULIC INLET
27	CL 001076802	1	CAP, PISTON
28	CL 000785202	2	RING, SEALING
29	CL 0006937	1	NUT, ADJUSTING
30	TT 0008233	2	BEARING, COLLET CLOSER
31	QDA000049202	1	NUT, ABUTMENT
32	EQ 0000480	1	DRAW TUBE, SPINDLE
33	EQ 0004197	1	HOUSING, DRAIN
34	CL 001197302	1	PLUG, TURN TITE EXPANSION
35	CL 000943109	3	O-RING
36	CL 000943107	2	O-RING
37	CS 000943129	1	O-RING
38	CL 000943108	1	O-RING
40	MW 0193810	8	WASHER, LOCK, M8
41	CL 001119804	6	SEAL, CARTRIDGE EXTERNAL
43	CL 000943106	1	O-RING
44	MD 0003487	1	PLUG, HEX SOCKET PIPE
45	CL 000770301G	1	ELBOW, 1" NPT STREET
46	CL 001010902	1	NIPPLE, 1" NPT CLOSE
47	MS 0103820	8	SCREW, SHC, M8X1.25X30MM
48	CL 0009811	1	SPRING, WAVE
49	TT 000770235	2	ELBOW, 45 DEGREE -6 SWIVEL
50	H 00095001415	1	TAG, HYDRAULIC PLUG WARNING

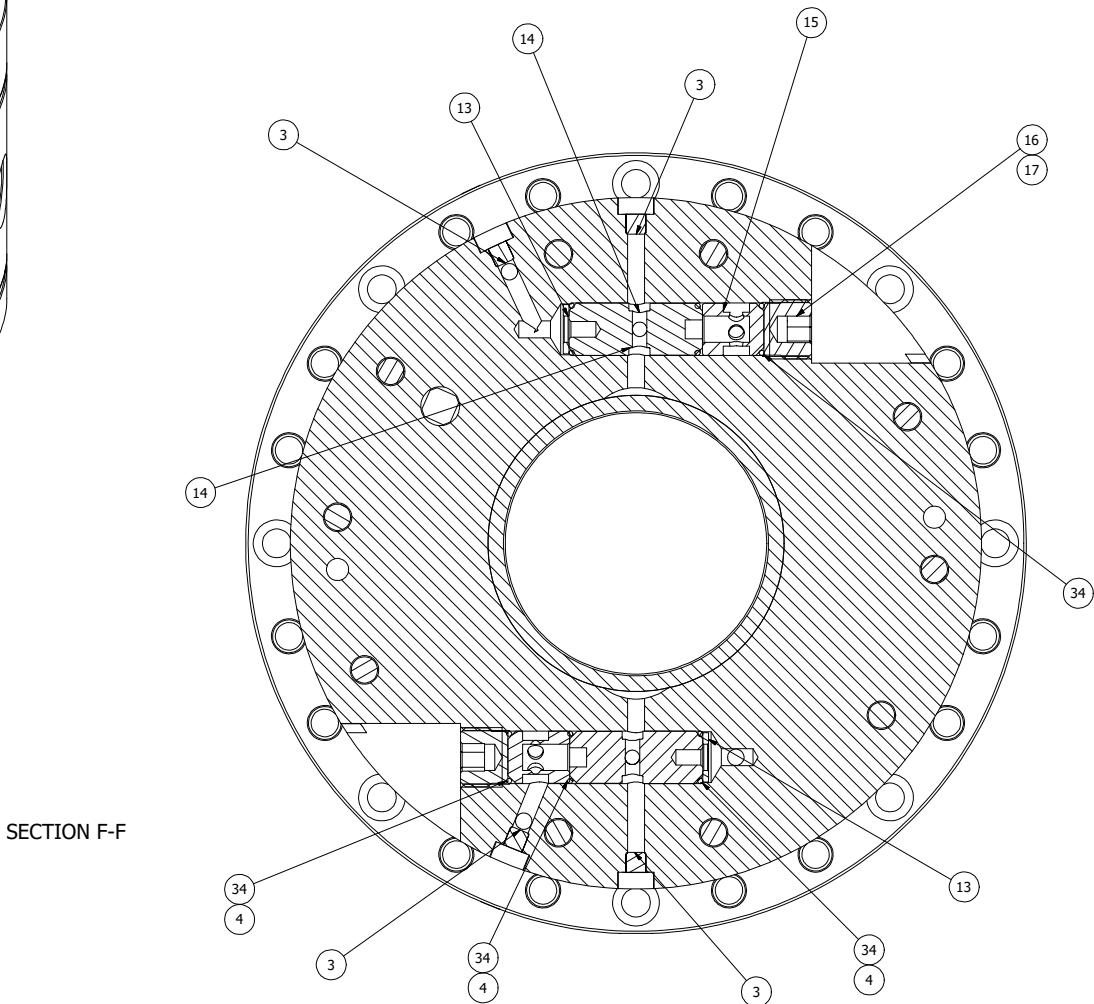


COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 65 MILLIMETER, CFS SPINDLE  
EQ 000006HBS





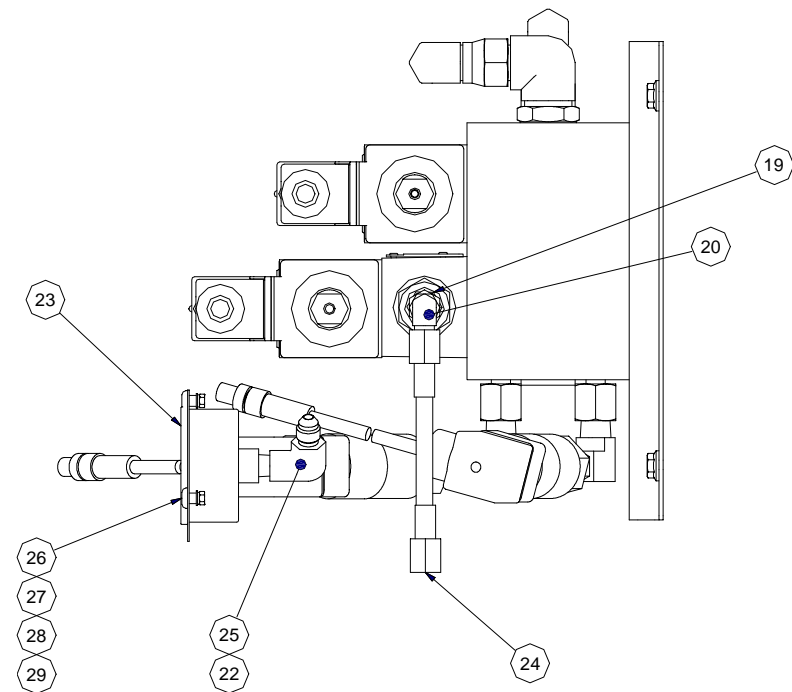
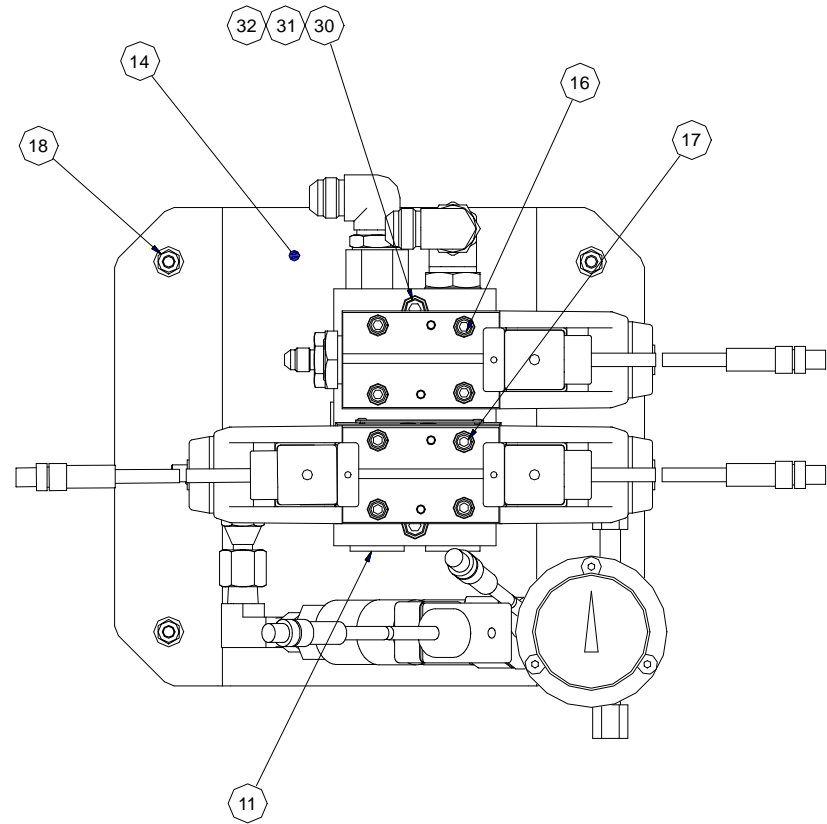
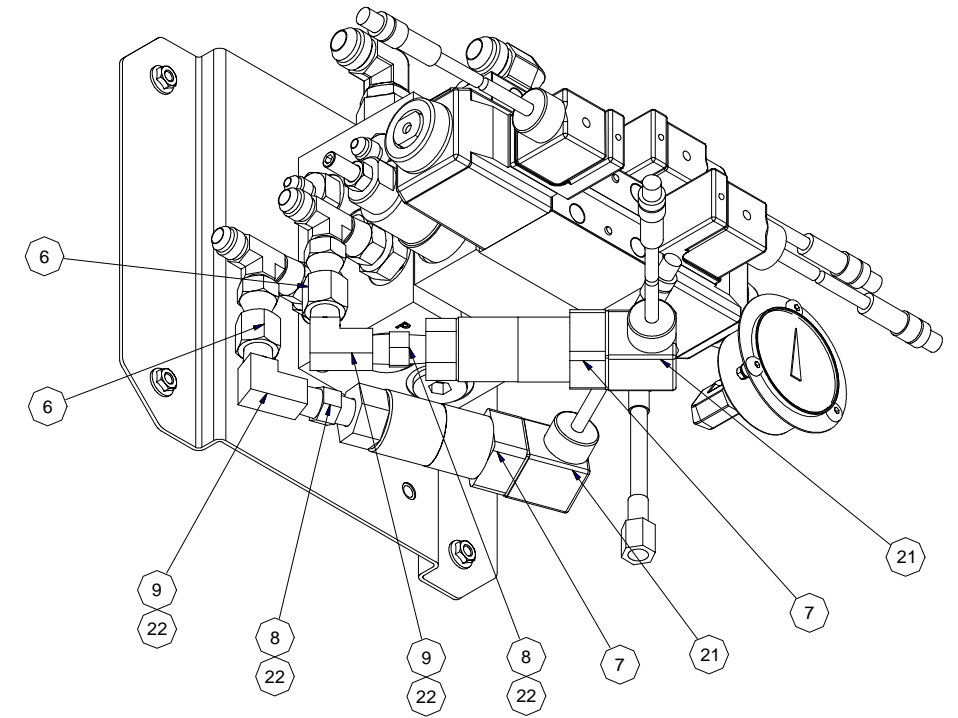
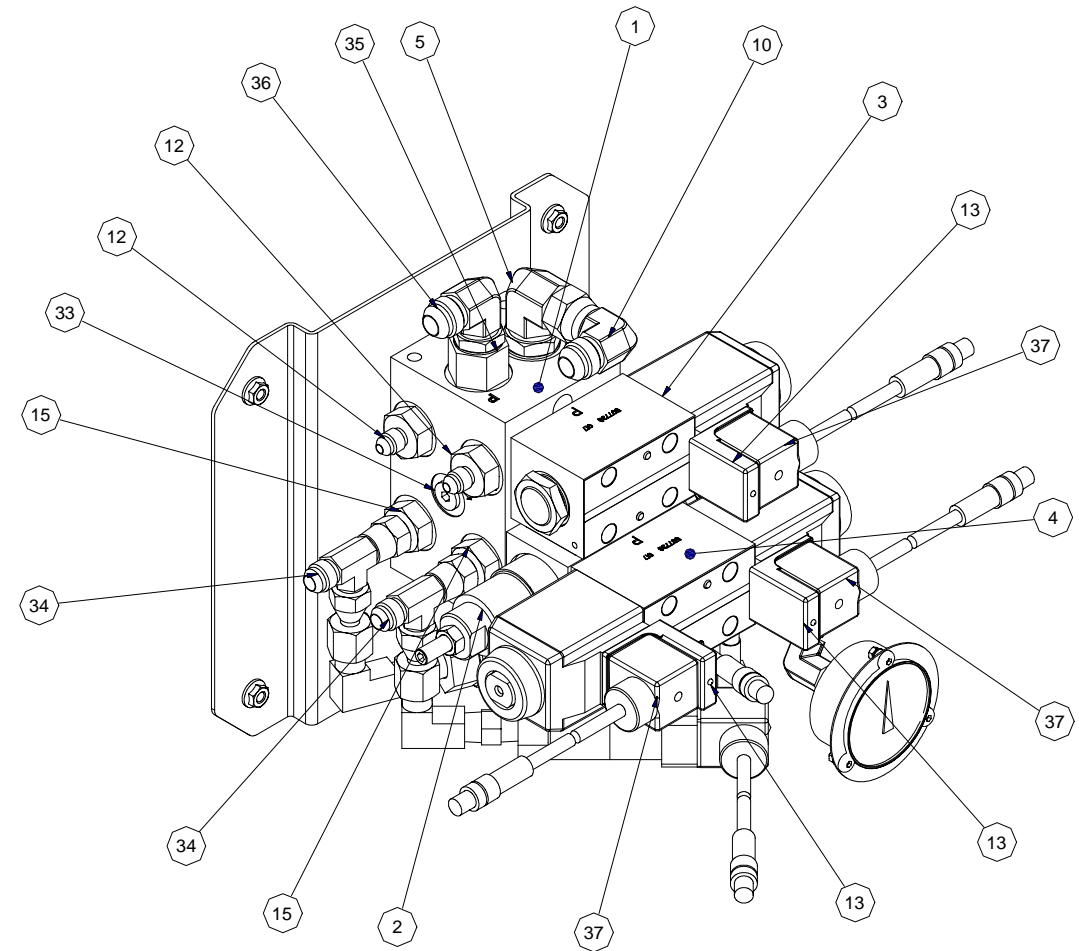
DETAIL R



SECTION F-F

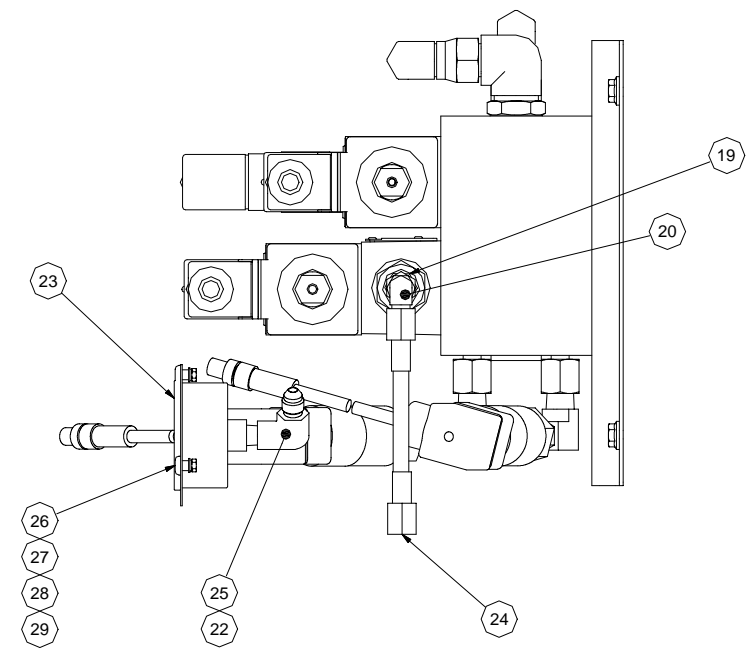
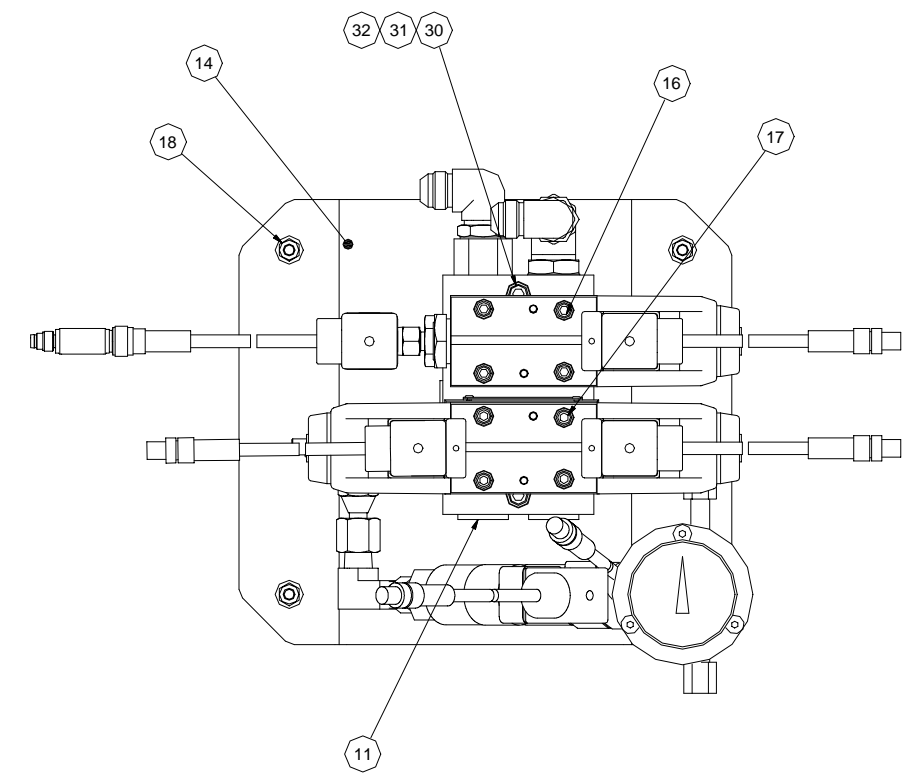
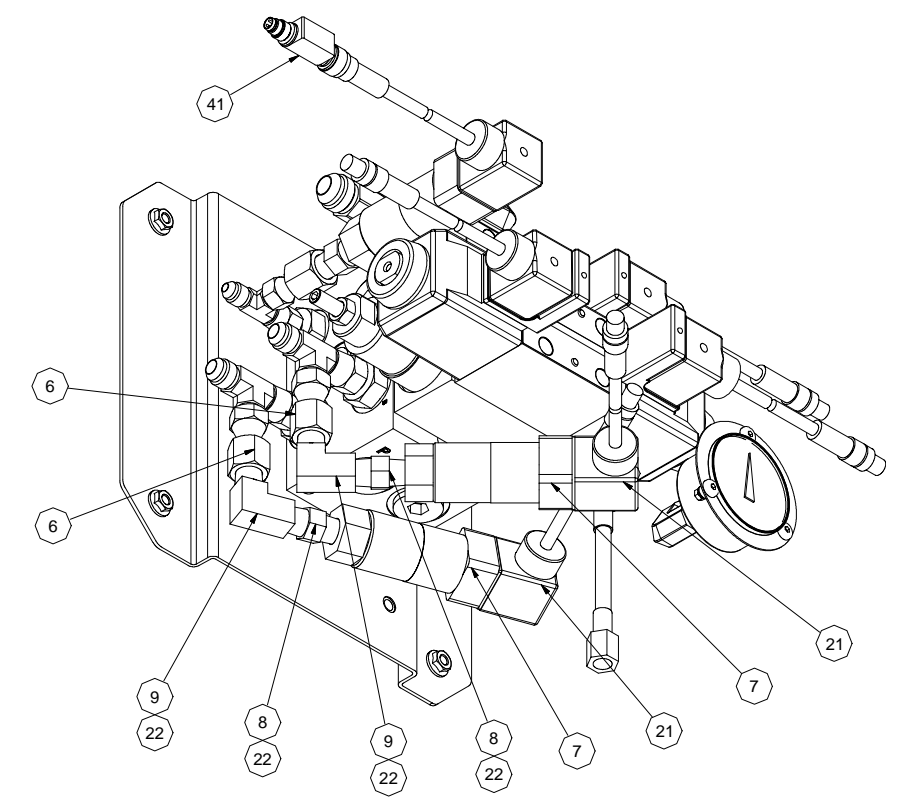
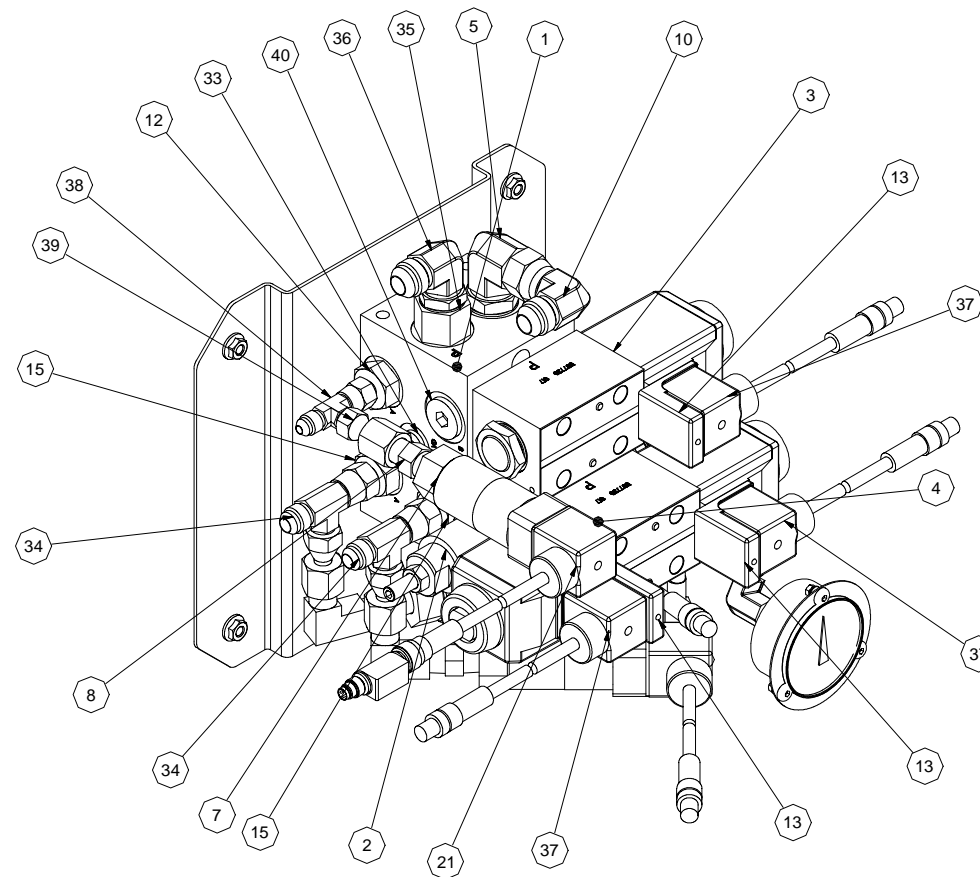
COLLET CLOSER ASSEMBLY, MAIN SPINDLE, 65 MILLIMETER, CFS SPINDLE  
EQ 000006HBS

ITEM	PART NUMBER	QTY	DESCRIPTION
1	VL 0010884	.1	THREADLOCKER, LOCTITE 277
2	CS 001125913	2	FITTING
3	CL 0007703	6	PLUG, LEE
4	RF 0010994	.19	GREASE, M55
5	11 0009431	2	O-RING
6	CS 001125911	2	FITTING, ELBOW
7	MS 0103514	4	SCREW, SHC, M5X0.8X8MM
8	NC 001088401	.1	THREADLOCKER, LOCTITE 222
9	CL 000943102	2	O-RING
10	EQ 0000407	1	CYLINDER, COLLET CLOSER
11	MS 0103821	10	SCREW, SHC, M8X1.25X35MM
12	NC 0010884	.1	THREADLOCKER, LOCTITE 242
13	CL 000323001	2	WASHER
14	CLC000304801	2	VALVE, CARTRIDGE LOCK
15	CL 001048101	2	SPACER
16	CL 0004646	2	PLUG, RETAINING
17	SB 0010884 S	.1	SEALANT, HYDRAULIC
18	CN 0010884	.1	RETAINING COMPOUND, LOCTITE 680
19	CLA001114301	1	PIN
20	CLA000419703	1	BODY, HYDRAULIC INLET
21	CL 001076802	1	CAP, PISTON
22	CL 000785202	2	RING, SEALING
23	TT 0008233	2	BEARING, COLLET CLOSER
24	QDA000049202	1	NUT, ABUTMENT
25	EQ 0000480HBS	1	DRAW BAR ASSEMBLY, T65 CFS
26	EQ 0004197	1	HOUSING, DRAIN
27	CL 001197302	1	PLUG, TURN TITE EXPANSION
28	QD 0009259HBL	1	PISTON, COLLET CLOSURE
29	CL 0006937	1	NUT, ADJUSTING
30	CL 000943109	3	O-RING
31	CL 000943107	2	O-RING
32	CS 000943129	1	O-RING
33	CL 000943108	1	O-RING
34	CL 001119804	6	SEAL CARTRIDGE EXTERNAL
36	CL 000943106	1	O-RING
37	MD 0003487	1	PLUG, HEX SOCKET PIPE
38	CL 000770301G	1	ELBOW, 1" NPT STREET
39	CL 001010902	1	NIPPLE, 1" NPT CLOSE
40	MS 0103820	8	SCREW, SHC, M8X1.25X30MM
41	CL 0009811	1	SPRING, WAVE
42	TT 000770235	2	ELBOW, 45 DEGREE -6 SWIVEL
43	CS 001042102	2	RING, ADAPTER
44	H 00095001415	1	TAG, HYDRAULIC PLUG WARNING
45	CS 0010994	0.01	GREASE, MOBIL 28
46	MW 0193810	8	WASHER, LOCK, M8



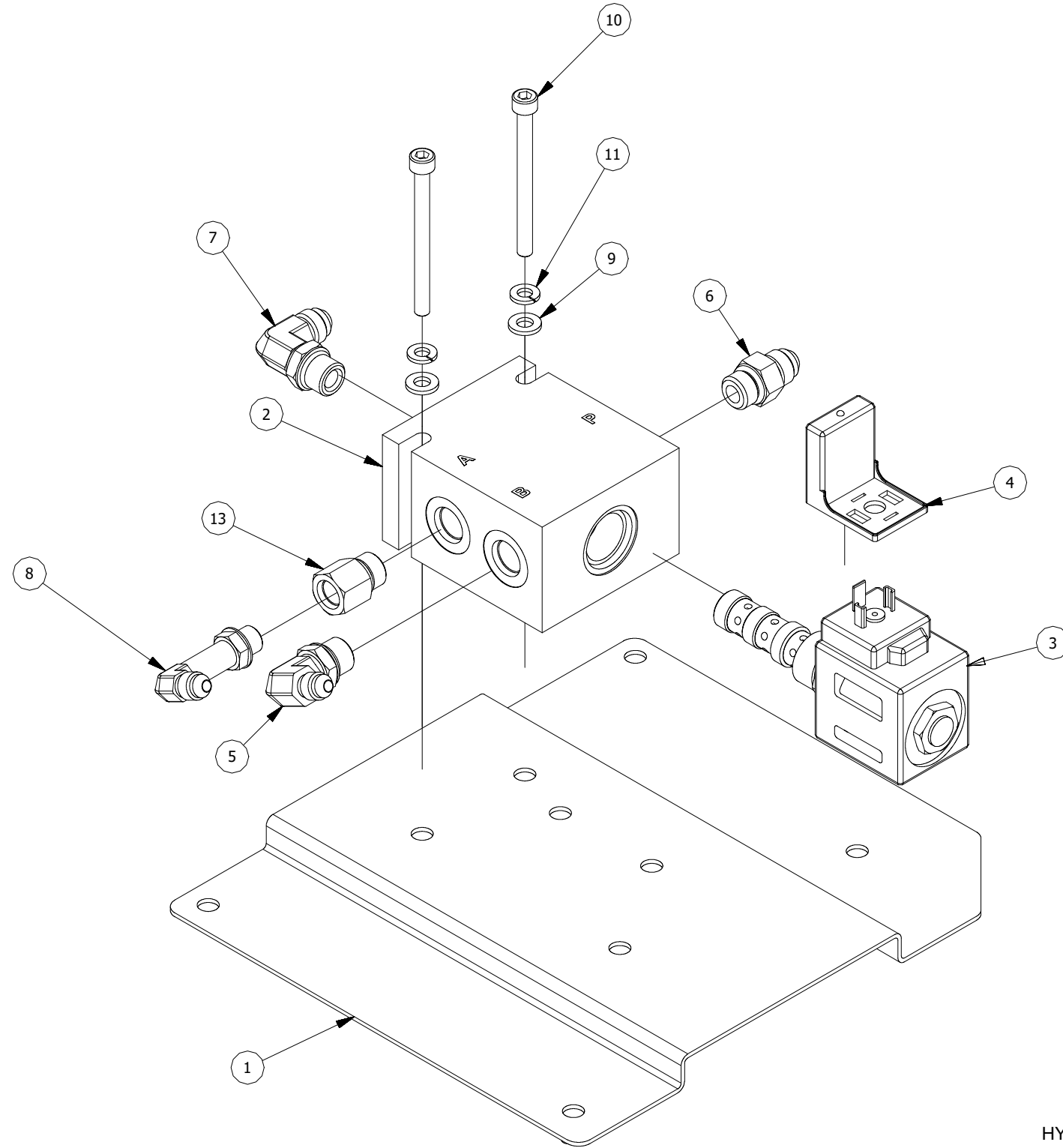
HYDRAULIC PANEL, MAIN COLLET CLOSER AND BRAKE  
CQ 0000133MCB

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0010234	1	MANIFOLD, 2 STATION DO3
2	CQ 0003048H2	1	VALVE, PSI REDUCING
3	TT 0003048SOL	1	VALVE, SGL SOLENOID 24 VDC HYD
4	VL 0003048CCDV	1	VALVE, DBL SOLENOID 24 VDC HYD
5	CQ 0007703	1	ELBOW, 90 DEG -10 SAE X -8 JIC
6	CQ 001078601	2	CONN, STR -6 JIC SWIV X 1/4" NPT FEMALE
7	CQ 0011736	2	PRESSURE SWITCH
8	CQ 0003504R015	2	NIPPLE, 1/4 NPT HEX
9	BP 31502418	2	ELBOW, 90 DEG 1/4 NPT STREET
10	CS 000838406	1	ELBOW, 90 DEG -8 SWIVEL
11	HS 000283309	2	PLUG, -10 SAE FLUSH
12	CQ 0010786	2	CONN, STR -4 JIC X -8 SAE
13	ML 001129801	3	SUPPRESSOR
14	CQ 0001990TVP1	1	PLATE, VALVE
15	SB 001078606	2	CONN, -6 JIC X -8 SAE STR
16	0100420	4	SCREW, SHC, 10-24X1-1/4
17	0100444	4	SCREW, SHC, 10-24X2-3/4
18	MN 0283610	4	NUT, SERRATED HEX FLANGE, M6X1
19	AD 001078604	1	CONN, STR -4 JIC X -4 SAE
20	AH 001157201	1	ELBOW, 90 DEG -4 JIC SWIVEL
21	TT 0003011SA03	2	CABLE ASSEMBLY, 0.3 METER
22	SB 0010884 S	1	THREAD SEALANT, HYDRAULIC
23	CQ 0011537HY	1	GAUGE, 0-1000 PSI
24	CQ 0007007	1	HOSE ASSEMBLY, 1/4 ID
25	CQ 000770301	1	ELBOW, 90 DEG -4 JIC X 1/8 NPT FEMALE
26	MS 0303514SS	3	SCREW, BT. HD. M5X.8,X 8MM
27	MW 0103310	3	WASHER, FLAT, M3
28	MW 0193310	3	WASHER, LOCK, M3
29	MN 0113310	3	NUT, HEX, M3X0.5
30	MS 0103628	2	SCREW, SHC, M6X1X70MM
31	MW 0103610	2	WASHER, FLAT, M6
32	MW 0193610	2	WASHER, LOCK, M6
33	SN 0011279	1	PLUG, -4 SAE HOLLOW HEX
34	CS 001078621	2	TEE, -6 JIC SWIVEL RUN
35	CQ 000770217	1	BUSHING, -8 SAE X -10 SAE
36	CQ 000770218	1	ELBOW, -8 JIC X -8SAE 90 DEGREE
37	TT 0003011VA03	3	CABLE ASSEMBLY, 0.3 METER



HYDRAULIC PANEL, MAIN COLLET CLOSER AND BRAKE, CFS SPINDLE  
CQ 0000133MCBCR

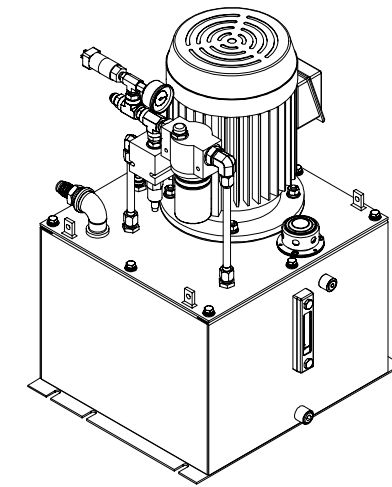
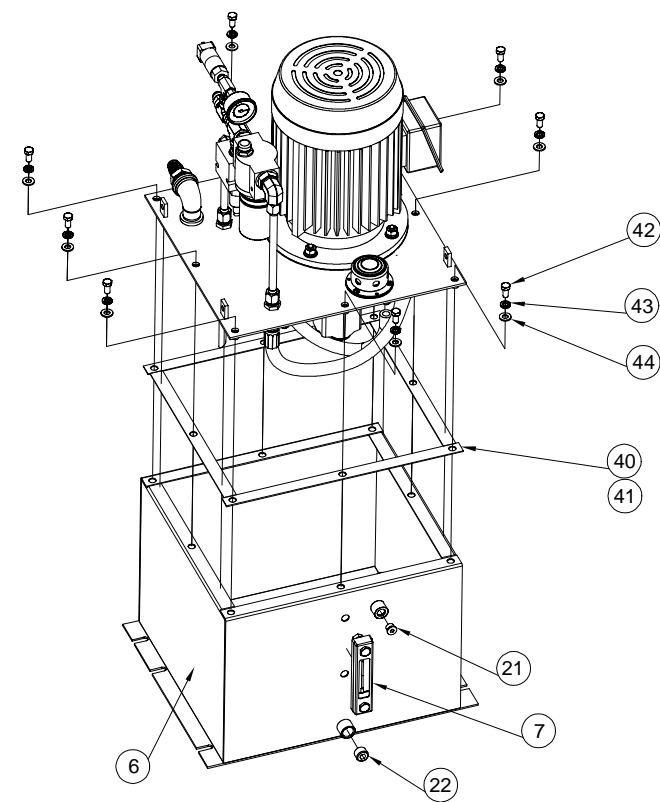
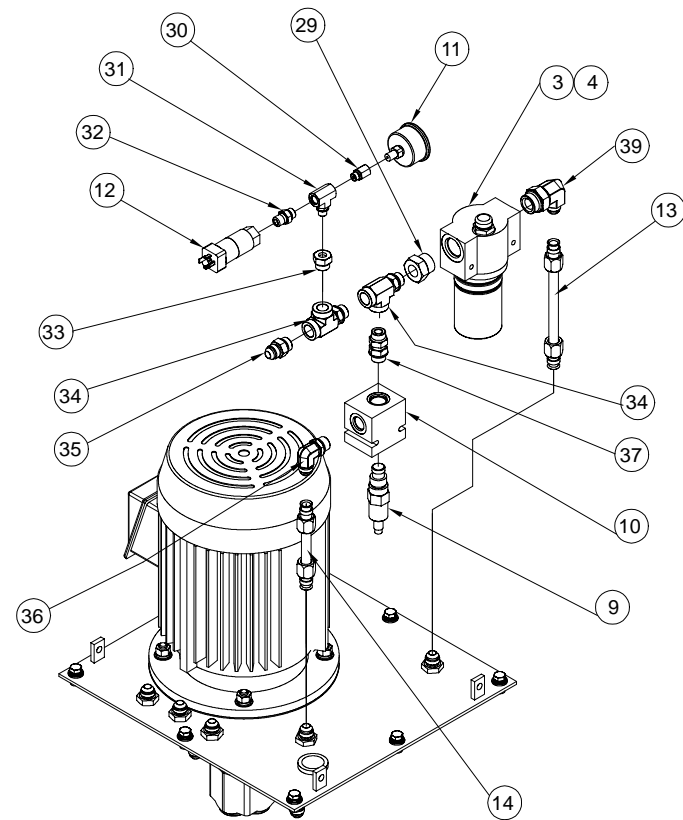
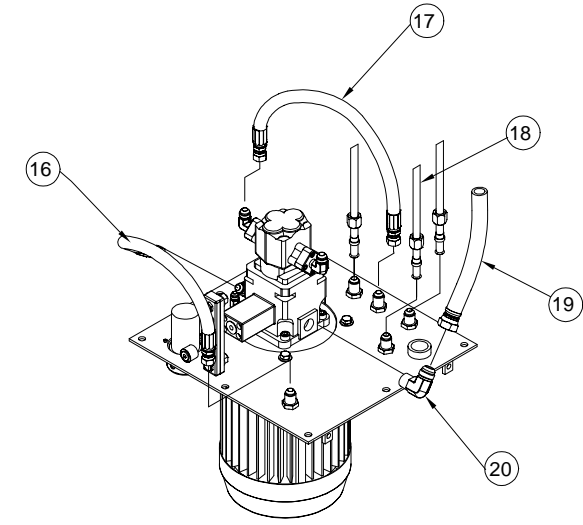
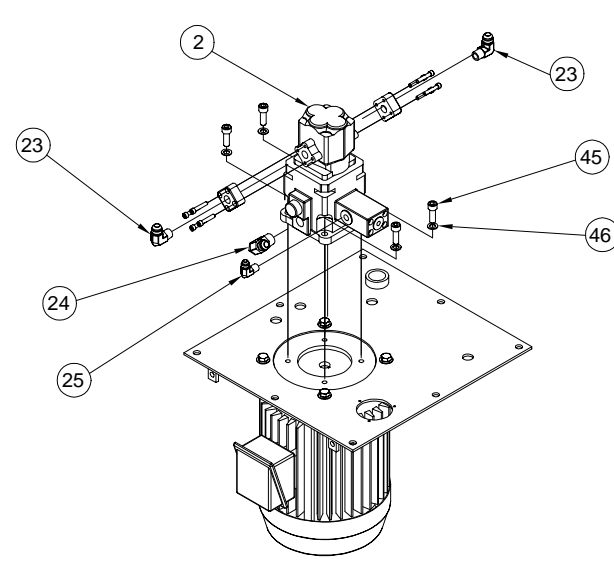
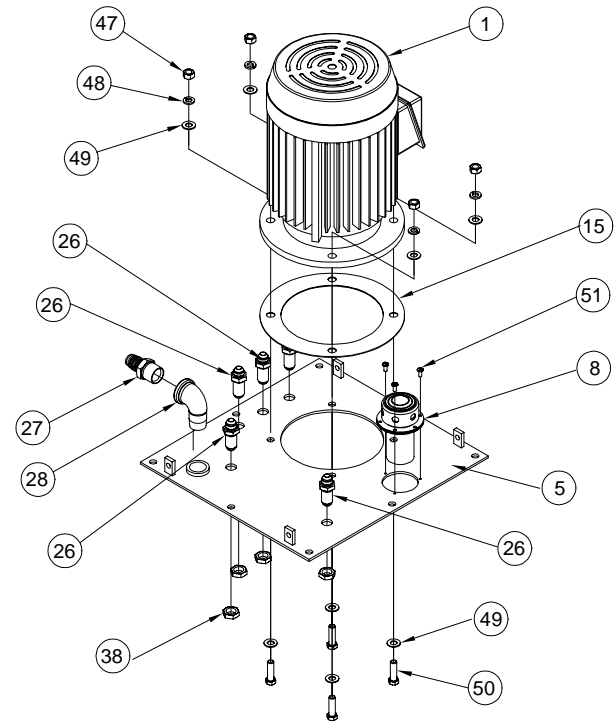
ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0010234	1	MANIFOLD, 2 STATION DO3
2	CQ 0003048H2	1	VALVE, PSI REDUCING ON "P"
3	TT 0003048SOL	1	VALVE, SGL SOLENOID 24 VDC HYDRAULIC
4	VL 0003048CCDV	1	VALVE, DBL SOLENOID 24 VDC HYDRAULIC
5	CQ 0007703	1	ELBOW, 90 DEGREE -10 SAE X -8 JIC
6	CQ 001078601	2	CONNECTOR, STR -6 JIC SWIV X 1/4" NPT FEMALE
7	CQ 0011736	3	PRESSURE SWITCH
8	CQ 0003504R015	3	NIPPLE, 1/4 NPT HEX
9	BP 31502418	2	ELBOW, 90 DEGREE 1/4 NPT STREET
10	CS 000838406	1	ELBOW, 90 DEGREE -8 SWIVEL
11	HS 000283309	2	PLUG, -10 SAE FLUSH
12	CQ 0010786	1	CONNECTOR, STR -4 JIC X -8 SAE
13	ML 001129801	3	SUPPRESSOR
14	CQ 0001990TVP1	1	PLATE, VALVE
15	SB 001078606	2	CONNECTOR, -6 JIC X -8 SAE STR
16	0100420	4	SCREW, SHC, 10-24x1-1/4
17	0100444	4	SCREW, SHC, 10-24x2-3/4
18	MN 0283610	4	NUT, SERRATED HEX FLANGE, M6X1
19	AD 001078604	1	CONNECTOR, STR -4 JIC X -4 SAE
20	AH 001157201	1	ELBOW, 90 DEGREE -4 JIC SWIVEL
21	TT 0003011SA03	3	CABLE ASSEMBLY, 0.3 METER
22	SB 0010884 S	1	THREAD SEALANT, HYDRAULIC
23	CQ 0011537HY	1	GAUGE, 0-1000 PSI
24	CQ 0007007	1	HOSE ASSEMBLY, 1/4 ID
25	CQ 000770301	1	ELBOW, 90 DEGREE -4 JIC X 1/8 NPT FEMALE
26	MS 0303514SS	3	SCREW, BT. HD. M5X.8,X 8MM
27	MW 0103310	3	WASHER, FLAT, M3
28	MW 0193310	3	WASHER, LOCK, M3
29	MN 0113310	3	NUT, HEX, M3X0.5
30	MS 0103628	2	SCREW, SHC, M6X1X70MM
31	MW 0103610	2	WASHER, FLAT, M6
32	MW 0193610	2	WASHER, LOCK, M6
33	SN 0011279	1	PLUG, -4 SAE HOLLOW HEX
34	CS 001078621	2	TEE, -6 JIC SWIVEL RUN
35	CQ 000770217	1	BUSHING, -8 SAE X -10 SAE
36	CQ 000770218	1	ELBOW, -8 JIC X -8SAE 90 DEGREE
37	TT 0003011VA03	3	CABLE ASSEMBLY, 0.3 METER
38	QC 000770301	1	TEE, -4 SWIVEL NUT RUN
39	LC 000770226	1	ADAPTER, 1/4 NPT X -4 JIC SWIVEL
40	CQ 000770235	1	PLUG, -8 SAE FLUSH
41	DQ 0012042812A	1	ADAPTER, M8 M TO M12 F, 3P



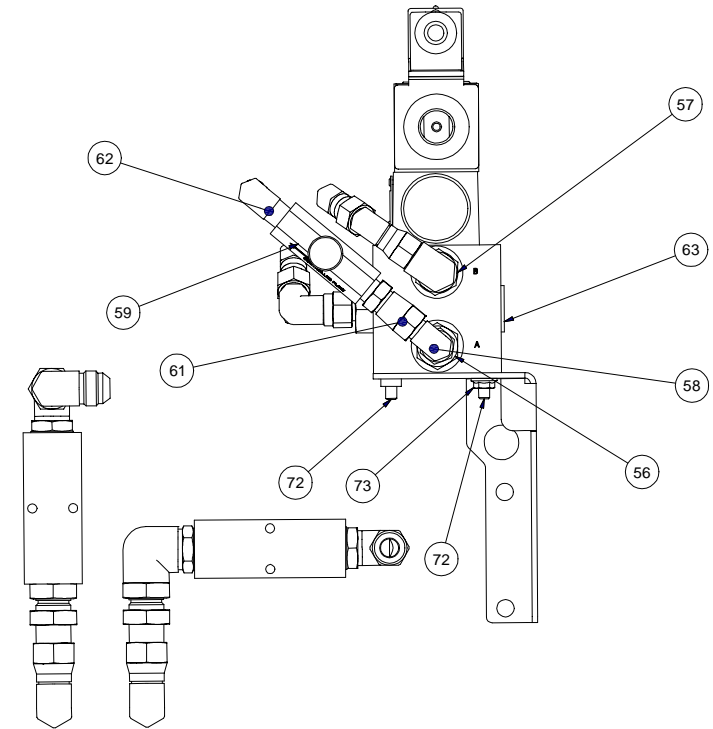
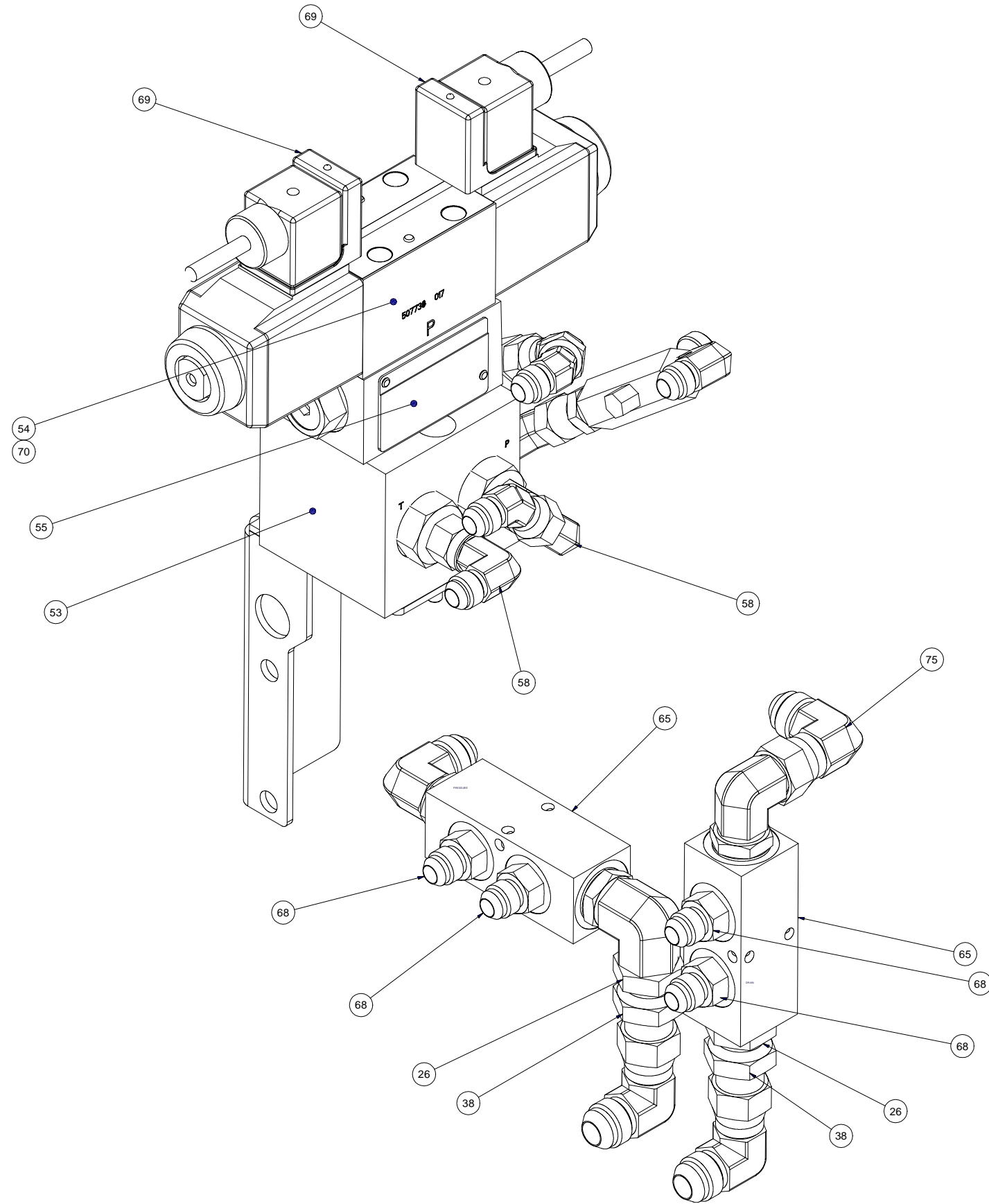
HYDRAULIC VALVE ASSEMBLY, SUBSPINDLE/TAILSTOCK BRAKE  
CQA0000133SB

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQA0001990TVP2	1	PLATE, VALVE
2	CQ 0010234RW	1	SCREW IN BODY
3	CQ 0003048RW1	1	SOLENOID VALVE
4	ML 001129801	1	SUPPRESSOR
5	QC 000770202	1	ELBOW, 90 DEGREE
6	AD 001078606	1	WEATHERHEAD, C5315X6 STR FITTING
7	AD 001078506	1	CONNECTOR, 90 DEGREE
8	CQ 0007702RW	1	ELBOW, STRAIGHT THREAD X-LONG
9	MW 0103610	2	WASHER, FLAT M6
10	MS 0103028	2	SCREW, HEX SOCKET HEAD CAP
11	MW 0194210	2	WASHER, LOCK HICOLLAR M12
13	CQ 000770235	1	REDUCER





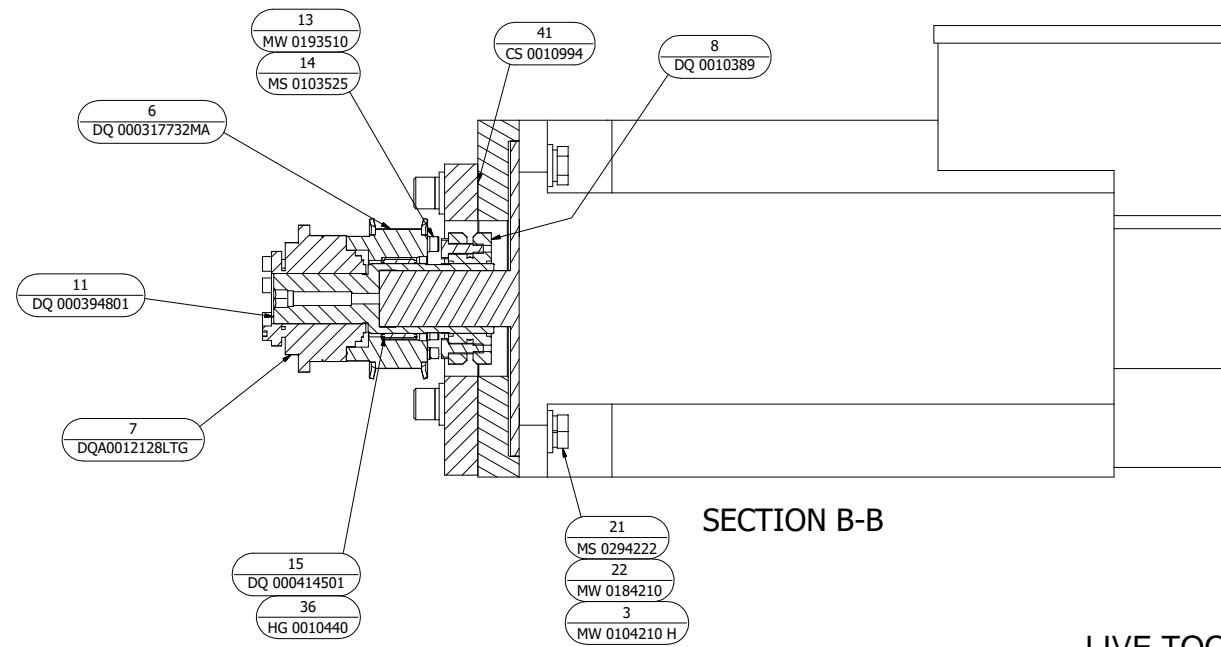
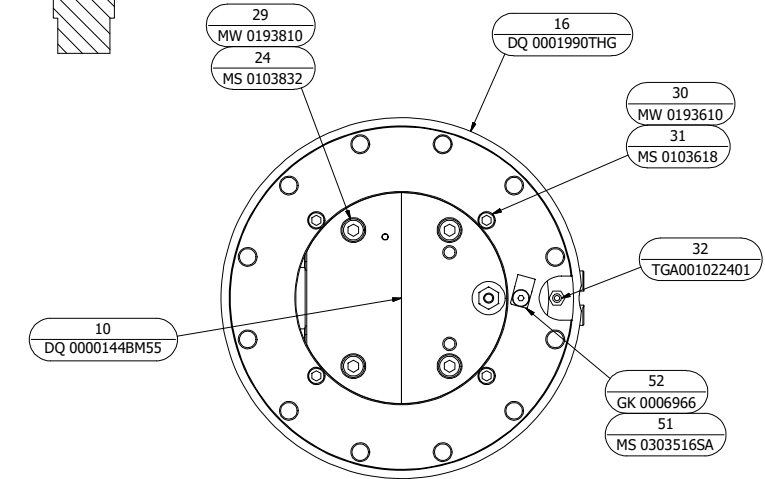
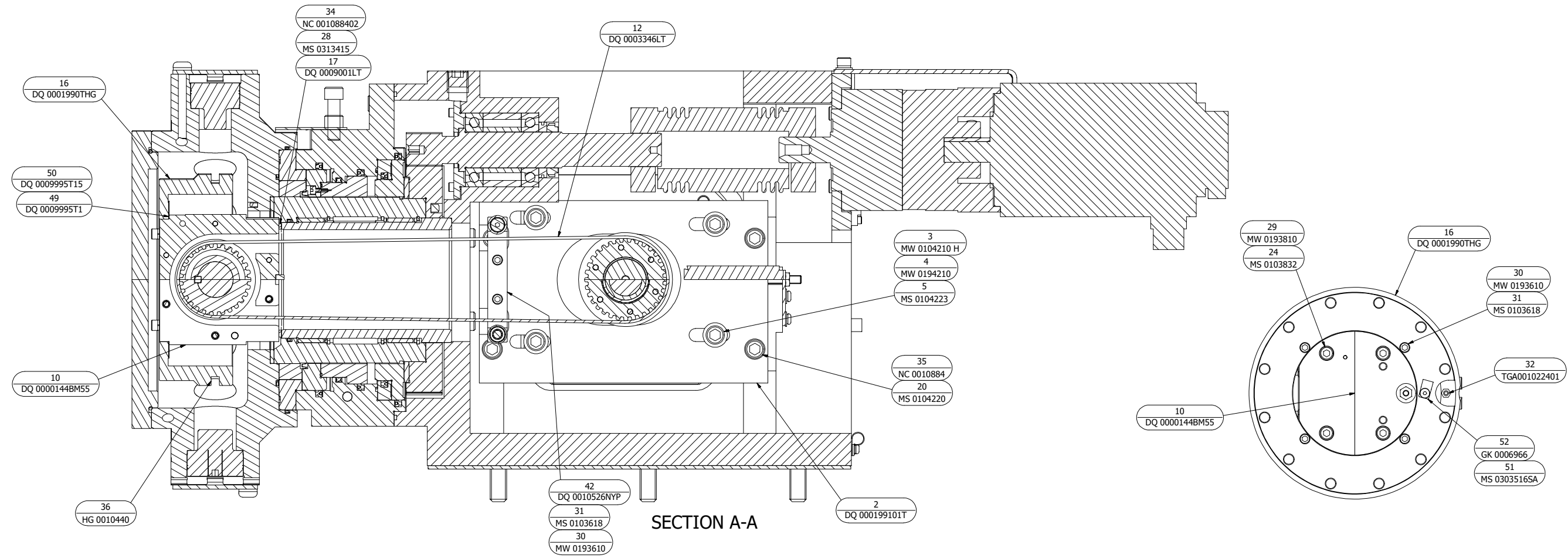
HYDRAULIC UNIT  
CQA0000133



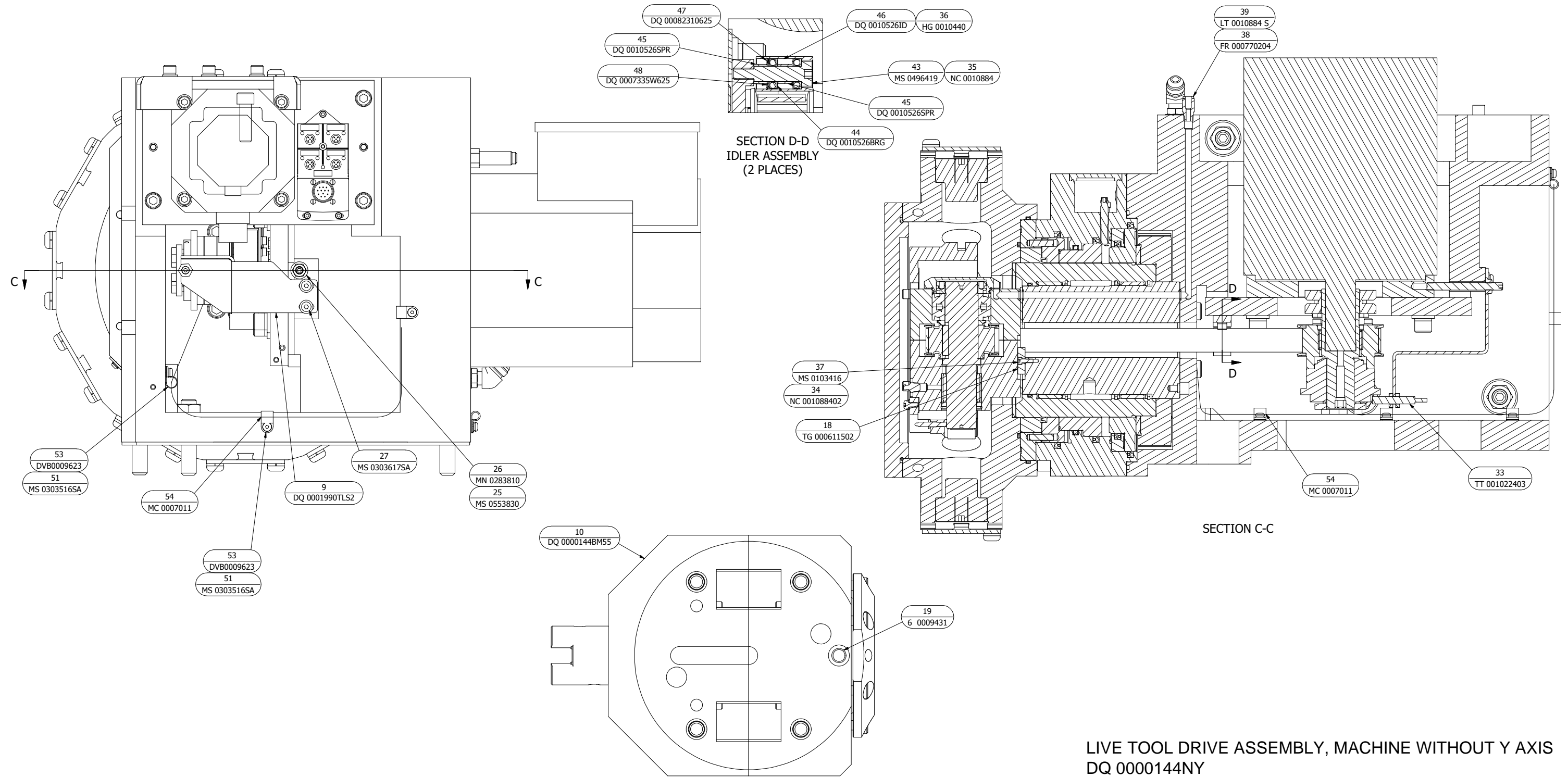
HYDRAULIC UNIT  
CQA0000133

ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 0009332SH3	1	3 HP MOTOR ZR57120
2	HU 00033256GAL	1	PUMP, HYDRAULIC
3	SG 001077902	1	FILTER, PRESSURE
4	SB 0011614 F	1	ELEMENT, FILTER
5	CQ 0001990HT	1	RESERVOIR TOP
6	CQ 0001990HR	1	RESERVOIR
7	AX 0000133SLG	1	SIGHT LEVEL GAGE, HYDRAULIC
8	CL 0000537	1	CAP, FILLER - RESERVOIR
9	QC 000304805	1	RELIEF VALVE
10	CQ 0010234RV	1	MANIFOLD, RELIEF VALVE
11	CQ 0011537HY	1	GAUGE, 0-1000 PSI
12	CQ 0011736	1	PRESSURE SWITCH
13	CQ 0007707FIT	1	TUBE, FILTER INLET
14	CQ 0007707RVT	1	TUBE, RELIEF VALVE
15	CQ 0010116HYMG	1	GASKET, MOTOR
16	CQ 0007707PUPP	1	HOSE, PUMP PRESSURE
17	CQ 0007707PUCP	1	HOSE, COOLER PUMP
18	CQ 0007707PUTT	2	TUBE, TANK
19	CQ 0007707PUPS	1	HOSE, PUMP SUCTION
20	XR 000770309	1	ELBOW, 3/4 NPT - 3/4 JIC
21	CL 001204210	1	PLUG, HYDRAULIC MANIFOLD
22	TM 0006992	1	PLUG, 1/2 HOLLOW PIPE
23	LC 000770230	2	ELBOW, 3/8NPT-1/2JIC
24	LC 000770228	1	ELBOW, 1/2 NPT-1/2 JIC
25	CS 000838415	1	ADAPTER, 90 DEGREE
26	AX 000770306	6	BULKHEAD, -8 JIC
27	CL 0008384	1	CONNECTOR, 1" NPTF
28	CL 000770301G	1	ELBOW, 1" STREET GALVNZD 90 DEG
29	CQ 000770232	1	REDUCER, SAE -12 X -8
30	QC 000770210	1	ADAPTER, -4 M TO 1/8 NPT
31	CQ 000770233	1	TEE, -4 SAE BRANCH
32	CQ 000770228	1	CONNECTOR, -4 SAE X 1/4 NPT
33	CQ 000770229	1	REDUCER, -8 SAE X -4 SAE
34	CQ 000770230	2	TEE, -8 SAE RUN
35	RV 000770204	1	ADAPTER, -8SAE TO -8JIC
36	CQ 000770218	1	ELBOW, -8 JIC X -8 SAE 90 DEG
37	CQ 000770231	1	CONNECTOR, -8 SAE STRAIGHT
38	CQ 00077048N	8	NUT, -8 BULKHEAD
39	CS 001078612	1	ELBOW, 90 DEGREE
40	CQ 0010116H1	2	GASKET, TANK TOP

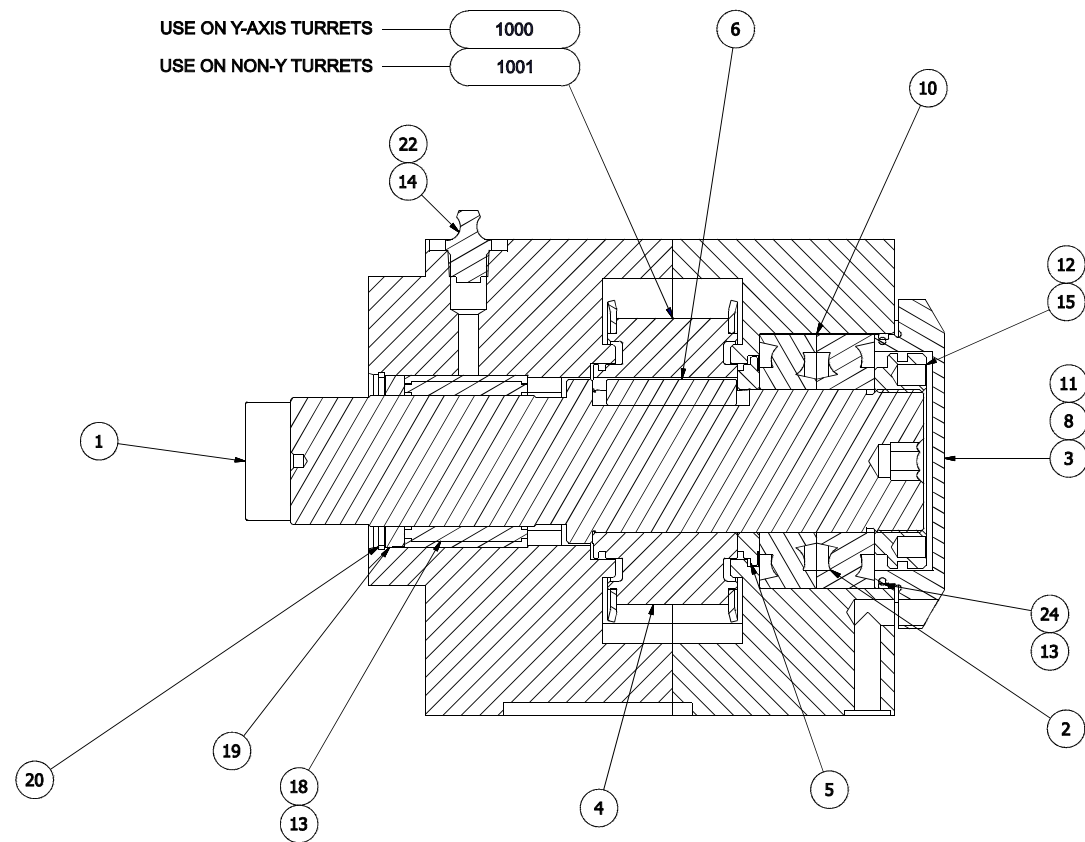
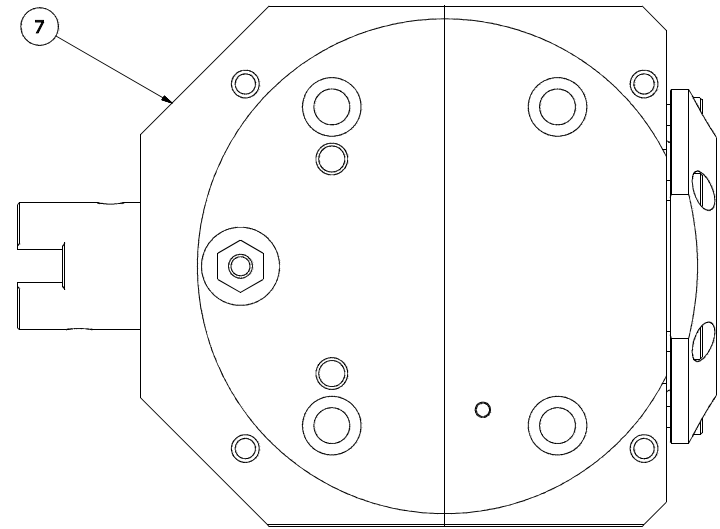
ITEM	PART NUMBER	QTY	DESCRIPTION
41	CQ 0010116H2	2	GASKET, TANK TOP
42	0101016	8	SCREW, SHC 3/8-16 X 1 HK
43	MD 0003591	8	WASHER, 3/8 LOCK
44	3750002840ZN	8	WASHER, 3/8 STD
45	MS 0104020	4	SCREW, SHC M10X1.5 X30
46	MW 0194010	4	WASHER, LOCK
47	5 0002012 C	4	NUT, HEX FOR ATTACHING SCREW
48	CN 0003623	4	WASHER
49	BP 11181906	8	WASHER, FLAT .468 I.D.
50	0151226	4	SCREW, HHC 7/16-14 X 1 5/8 GR5
51	0340306	3	SCREW, OHC 10-32 X 3/8
52	CQ 0001990TV	1	BRACKET, TURRET VALVE
53	CQ 0010234TV	1	MANIFOLD, D03 SINGLE STATION
54	VL 0003048CCDV	1	VALVE, DOUBLE SOLENOID 24VDC
55	CQ 0003048H3	1	VALVE, D03 SANDWICH CHECK
56	SB 001078606	1	CONNECTOR, -6 JIC X -8 SAE STRAIGHT
57	CQ 000770210	1	ELBOW, 90 DEGREE -6 X -8 SAE
58	AM 001157202	3	ELBOW, -6 JIC SWIVEL
59	CS 001145203	1	VALVE, 1/4 NPT FLOW CONTROL
60	TT 000770235	3	ELBOW, 45 DEGREE -6 SWIVEL
61	CQ 000770211	1	CONNECTOR, -6 JIC SWIVEL X 1/4 NPT MALE
62	CS 000838415	1	ELBOW, 90 DEGREE -6 X 1/4 NPT
63	HS 000283309	2	PLUG, -10 SAE FLUSH
64	SB 001078607	2	CONNECTOR, -6 JIC X -10 SAE STRAIGHT
65	CQ 0010234H1	2	MANIFOLD, JUNCTION
67	CQ 000770225	1	ELBOW, -8 SAE X -8 SAE
68	AD 001078606	4	CONNECTOR, -6 SAE X -6 JIC STRAIGHT
69	ML 001129801	2	SUPPRESSOR
70	100444	4	SCREW, SHC 10-24 X 2-3/4
72	MS 0103627	2	SCREW, SHC M6 X 1 X 65MM
73	MN 0283610	1	NUT, SERRATED HEX FLANGE M6 X 1
75	CS 000838406	3	ELBOW, 90 DEGREE -8 SWIVEL
76	CQ 000770218	2	ELBOW, -8 JIC X -8 SAE 90 DEGREE
77	CQ 000943108RB	2	O-RING, -8 SAE FITTING



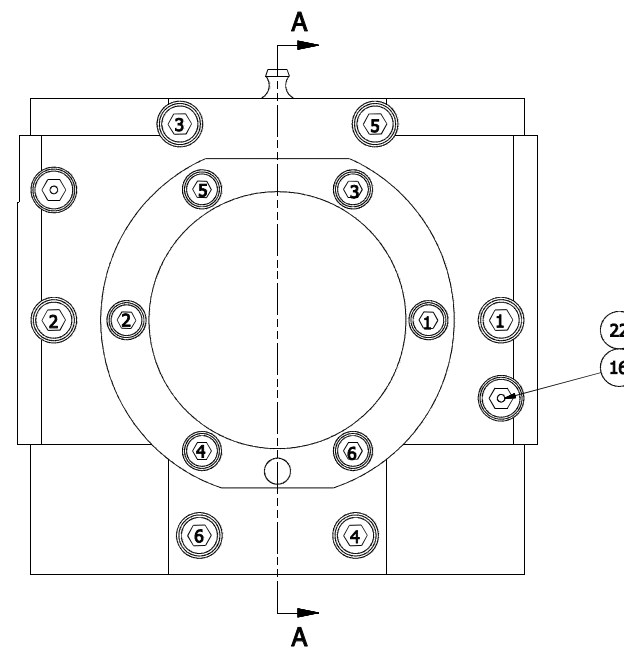
LIVE TOOL DRIVE ASSEMBLY, MACHINE WITHOUT Y AXIS  
DQ 0000144NY



ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0001990MA	1	PLATE, MOTOR ADAPTER	41	CS 0010994	0.01	GREASE
2	DQ 000199101T	1	PLATE, LIVE TOOL MOTOR	42	DQ 0010526NYP	1	IDLER PLATE
3	MW 0104210 H	8	WASHER, FLAT, HARD, M12	43	MS 0496419	2	SCREW, SOC HD SHLD 08/M6 x 25
4	MW 0194210	4	WASHER, LOCK, M12	44	DQ 0010526BRG	4	BEARING
5	MS 0104223	4	SCREW, SHC, M12X1.75X45MM	45	DQ 0010526SPR	4	SPACER, TURRET IDLER
6	DQ 000317732MA	1	PULLEY, LIVE TOOL MOTOR	46	DQ 0010526ID	2	IDLER, TURRET
7	DQA0012128LTG	1	TORQUE LIMITER, LIVE TOOLING	47	DQ 00082310625	2	SNAP RING, TURRET IDLER
8	DQ 0010389	1	SLEEVE, CLAMPING	48	DQ 0007335W625	2	SPRING, 5/8" WAVE
9	DQ 0001990TLS2	1	BRACKET, TORQUE LIMITER SWITCH	49	DQ 0009995T1	2	SHIM, 0.001" GUIDE DISK
10	DQ 0000144BM55	1	LIVE TOOL DRIVE ASSEMBLY	50	DQ 0009995T15	2	SHIM, 0.0015" GUIDE DISK
11	DQ 000394801	1	SHAFT, LIVE TOOL MOTOR	51	MS 0303516SA	5	SCREW ASSEMBLY, BH M5X.8X12
12	DQ 0003346LT	1	BELT, LIVE TOOLING	52	GK 0006966	1	CLAMP, HOSE 4 MM SINGLE
13	MW 0193510	6	WASHER, LOCK, M5	53	DVB0009623	4	CABLE CLAMP, 7/16
14	MS 0103525	6	SCREW, SHC, M5X0.8X55MM	54	MC 0007011	20"	TUBING, 3/8" BLACK NYLON
15	DQ 000414501	1	BEARING, NEEDLE				
16	DQ 0001990THG	1	GUIDE DISC				
17	DQ 0009001LT	1	SHIM, LIVE TOOL HOUSING				
18	TG 000611502	1	KEY				
19	6 0009431	1	O-RING				
20	MS 0104220	4	SCREW, SHC, M12X1.75X30MM				
21	MS 0294222	4	BOLT, M12 X 1.75 X 40 HEX 10.9 GR				
22	MW 0184210	4	WASHER, LOCK, M12				
24	MS 0103832	4	SCREW, SHC, M8X1.25X100MM				
25	MS 0553830	1	SCREW, SET, CUP, M8X1.25X80MM				
26	MN 0283810	1	NUT, SERRATED HEX FLANGE, M8X1.25				
27	MS 0303617SA	2	SCREW ASSEMBLY, M6X1X16MM				
28	MS 0313415	2	SCREW, FHC, M4 X 0.7 X 10MM				
29	MW 0193810	4	WASHER, LOCK, M8				
30	MW 0193610	6	WASHER, LOCK, M6				
31	MS 0103618	6	SCREW, SHC, M6X1X20MM				
32	TGA001022401	1	PROXIMITY SWITCH				
33	TT 001022403	1	SWITCH, PROXIMITY, 8MM W/ CON 0.6M				
34	NC 001088402	0.01	THREADLOCKER, LOCTITE 222				
35	NC 0010884	0.01	THREADLOCKER, LOCTITE 242				
36	HG 0010440	0.05	GREASE, ANTI-SIEZE, BLACK				
37	MS 0103416	1	SCREW, SHC, M4X0.7X12MM				
38	FR 000770204	1	CONNECTOR, STRAIGHT MALE				
39	LT 0010884 S	0.01	SEALANT, PIPE				
40	CK 000918824	3	FERRULE FOR AWG 24				



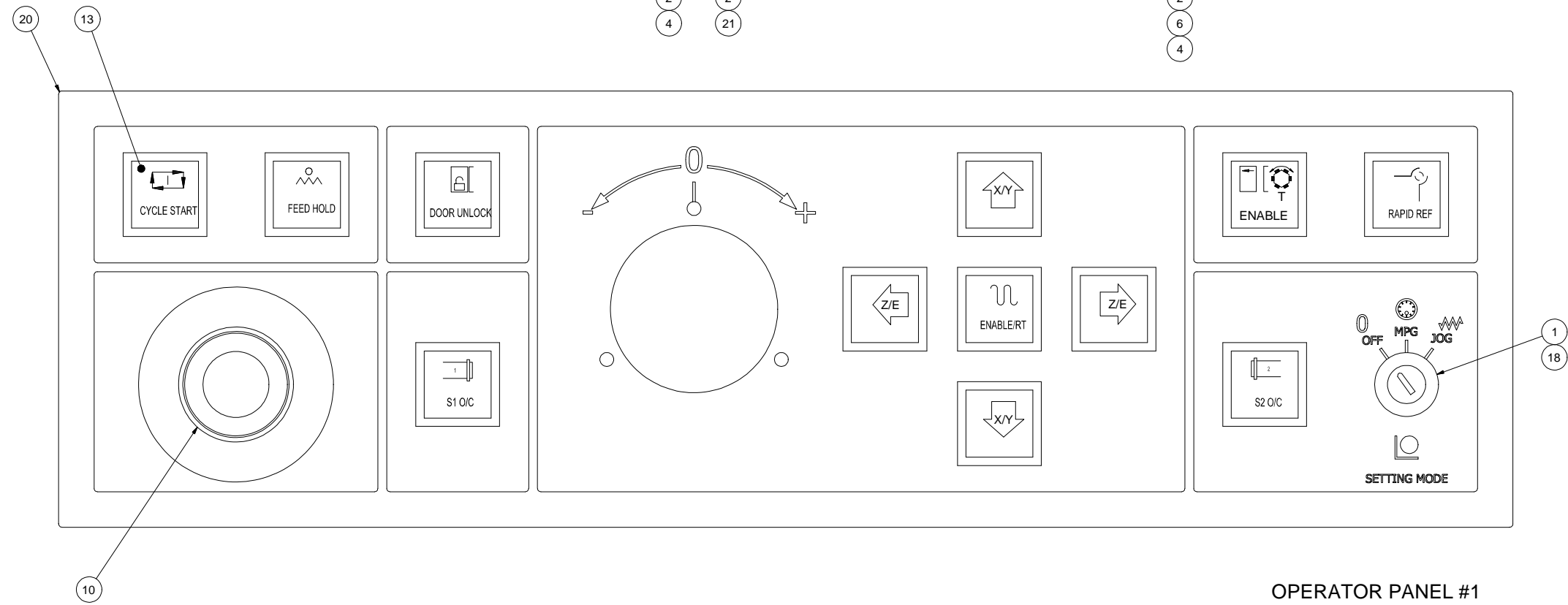
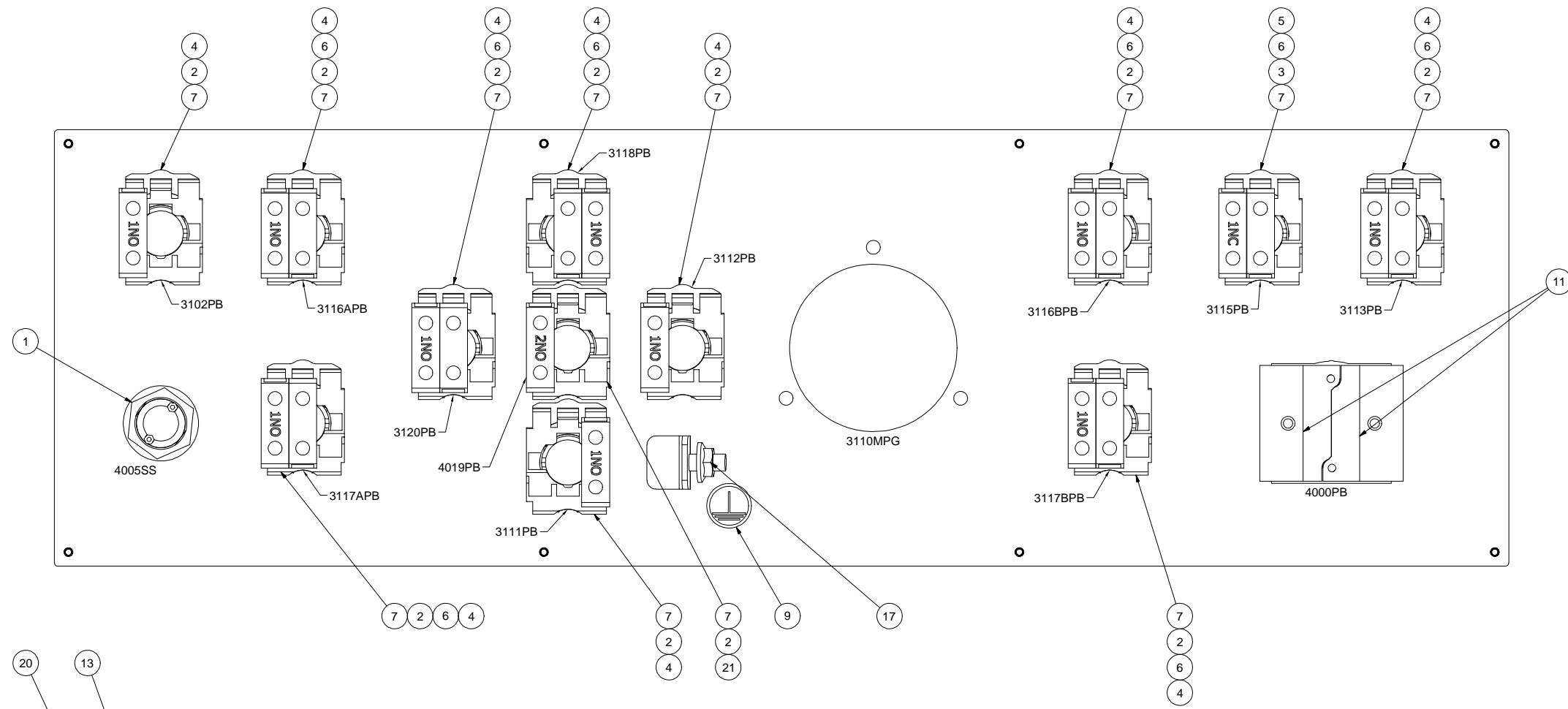
SECTION A-A



LIVE TOOL DRIVE ASSEMBLY  
DQ 0000144BM55

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQA0003948BM55	1	SHAFT, LIVE TOOL DRIVE
2	DQ 000414001G	1	BEARING, PAIR GREASED
3	DQ 001119801	1	RETAINER, BEARING
4	DQA000317728BA	1	PULLEY, 28 TEETH
5	DQ 001119804	1	LABYRINTH, BEARING
6	DQ 000611501	1	KEY, LIVE TOOL SHAFT
7	DQ 001149201BA	1	ASSEMBLY, DRIVE HOUSING
8	MS 0103516	6	SCREW, SHC, M5X0.8X12MM
10	HG 0010440	.03	GREASE, ANTI-SIEZE, BLACK MOLLY
11	NC 001088402	.03	THREADLOCKER, LOCTITE 222
12	VL 0010884	.03	THREADLOCKER, LOCTITE 277
13	TT 0010994NCA	.01	GREASE, NCA15
14	DV 0010327	1	FITTING, 1/8 NPT GREASE
15	QC 000026001V4	1	NUT, BEARING
16	5 0001467	2	PLUG, 1/8 NPT
18	QC 0004145V4	1	BEARING, NEEDLE
19	DQ 0011198LT	1	SEAL, LIVE TOOL LABYRINTH
20	QC 0008231V4	1	SNAP RING
21	S 001070003	1	LEE PLUG
22	LT 0010884 S	.01	SEALANT, PIPE
24	OR 0003638	1	O-RING
25	DQA0000008AB	1	LIVE TOOL TORQUE LIMITER RESET TOOL
1000	DQ 0003346LTY	-	BELT, LIVE TOOLING (Y-AXIS TURRET)
1001	DQ 0003346LT	-	BELT, LIVE TOOLING (NON-Y AXIS TURRET)





OPERATOR PANEL #1  
DQC001184401

ITEM	PART NUMBER	QTY	DESCRIPTION
1	EQ 00036503PKS	1	SWITCH, 3 POS, 2 POL, 2 DECK
2	FG 0003650SE03	11	SWITCH, HEAD, WHITE, FL, ILL
3	DQ 0003650SE01	1	SWITCH, HEAD, WHITE, EXT, ILL
4	FG 0003650SE06	10	SWITCH, CONTACT, 1NO
5	NV 00036500115	1	SWITCH, CONTACT, 1NC
6	FG 0003650SE11	8	SWITCH, LIGHT BLOCK WHITE LED
7	FG 0003650SE05	12	SWITCH, BODY/MOUNTING COLLAR
9	ML 0010366 G	1	TAG, GROUND
10	CQ 0003650ES	1	SWITCH, E-STOP
11	CQ 00036501NC	2	CONTACT BLOCK, 1NC
12	F3 000997701	15	LABEL, ID
13	CQA0010366	1	LABELS, PUSH BUTTONS
14	ML 000786402	21	PIN, CONNECTOR
15	MG 001204202	1	CONNECTOR
16	CN 000786401	1	PIN, #22-20 AWG CRIMP
17	MN 0283610	1	NUT, SERRATED HEX FLANGE, M6X1
18	GG 0009431	1	O RING, 3/4 X 7/8 X 1/16 SQU
19	DQ 0002873OP01	1	WIRE PACKAGE, OPERATOR PANEL #1
20	DQA0010115SP02	1	PANEL, MPG
21	DQ 0003650SE10	1	SWITCH, CONTRACT, 2NO

## NOTE:

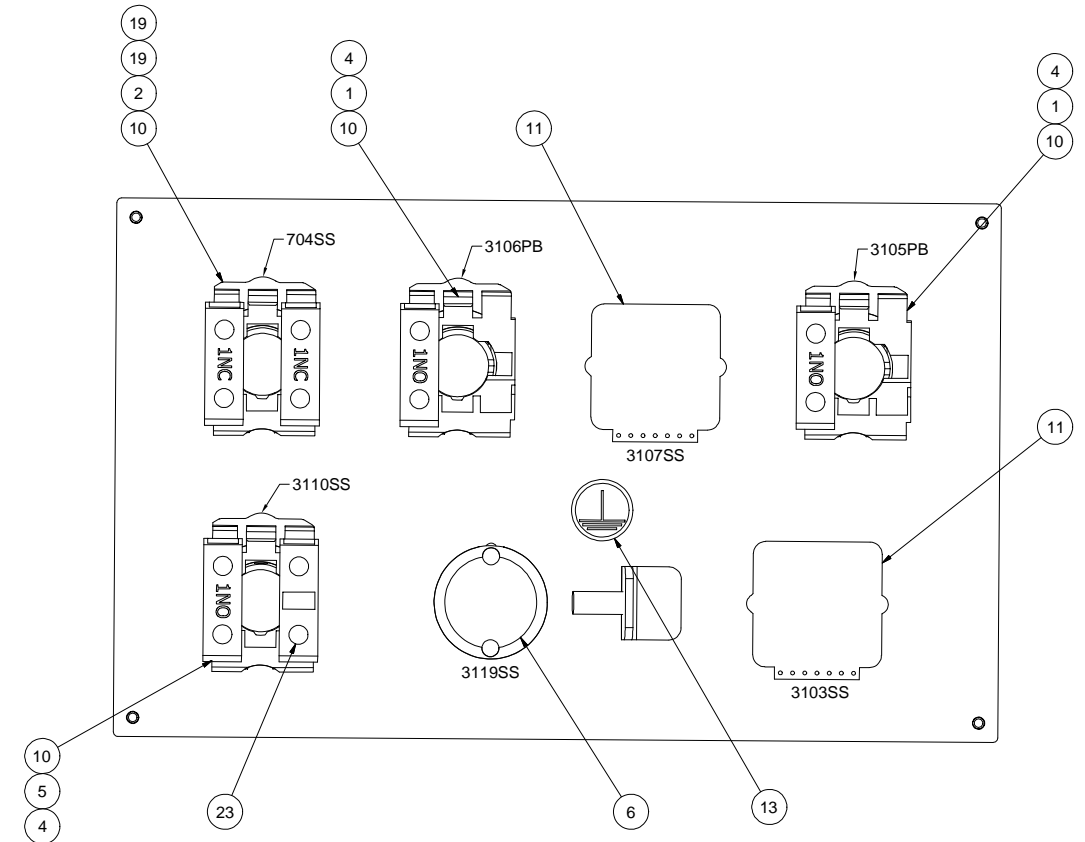
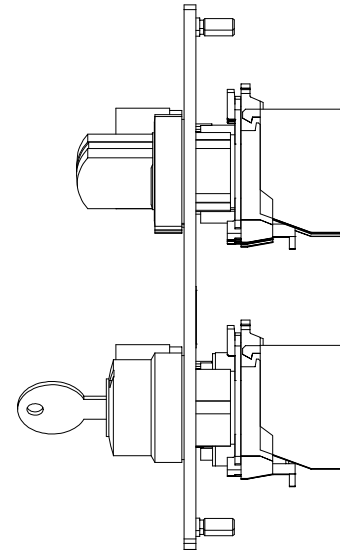
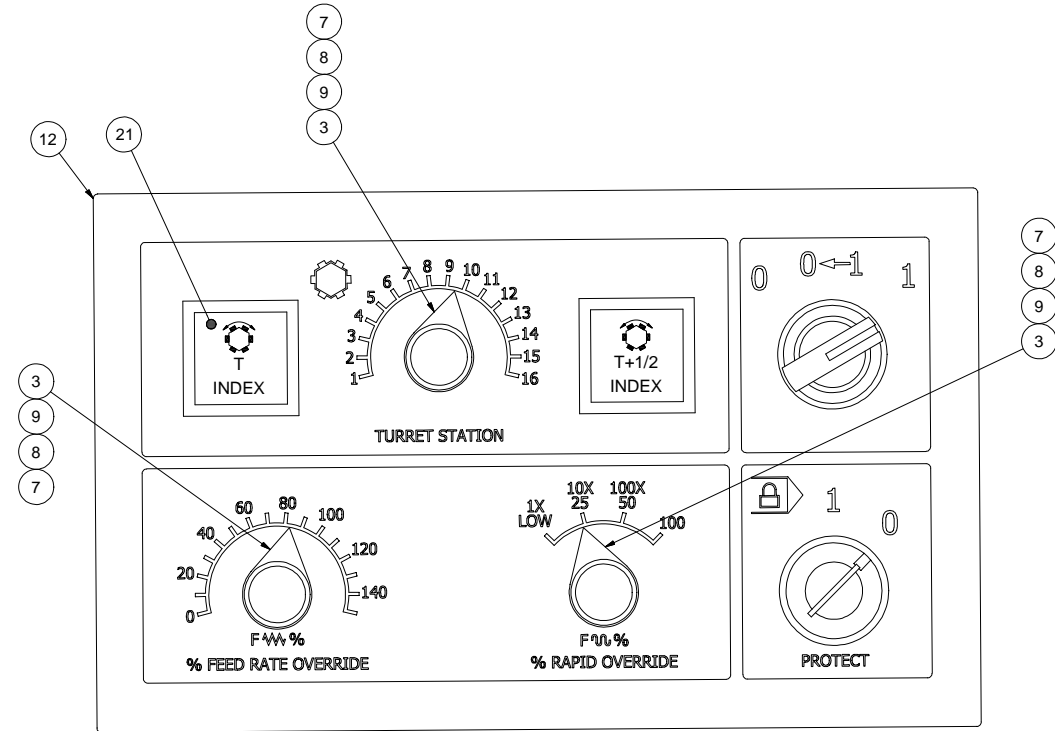
If replacing GE switch components, the following items must be ordered together:

- SWITCH, HEAD
- SWITCH, CONTACT
- SWITCH, LIGHT BLOCK WHITE LED
- SWITCH, BODY/MOUNTING COLLAR
- LABELS, PUSH BUTTON

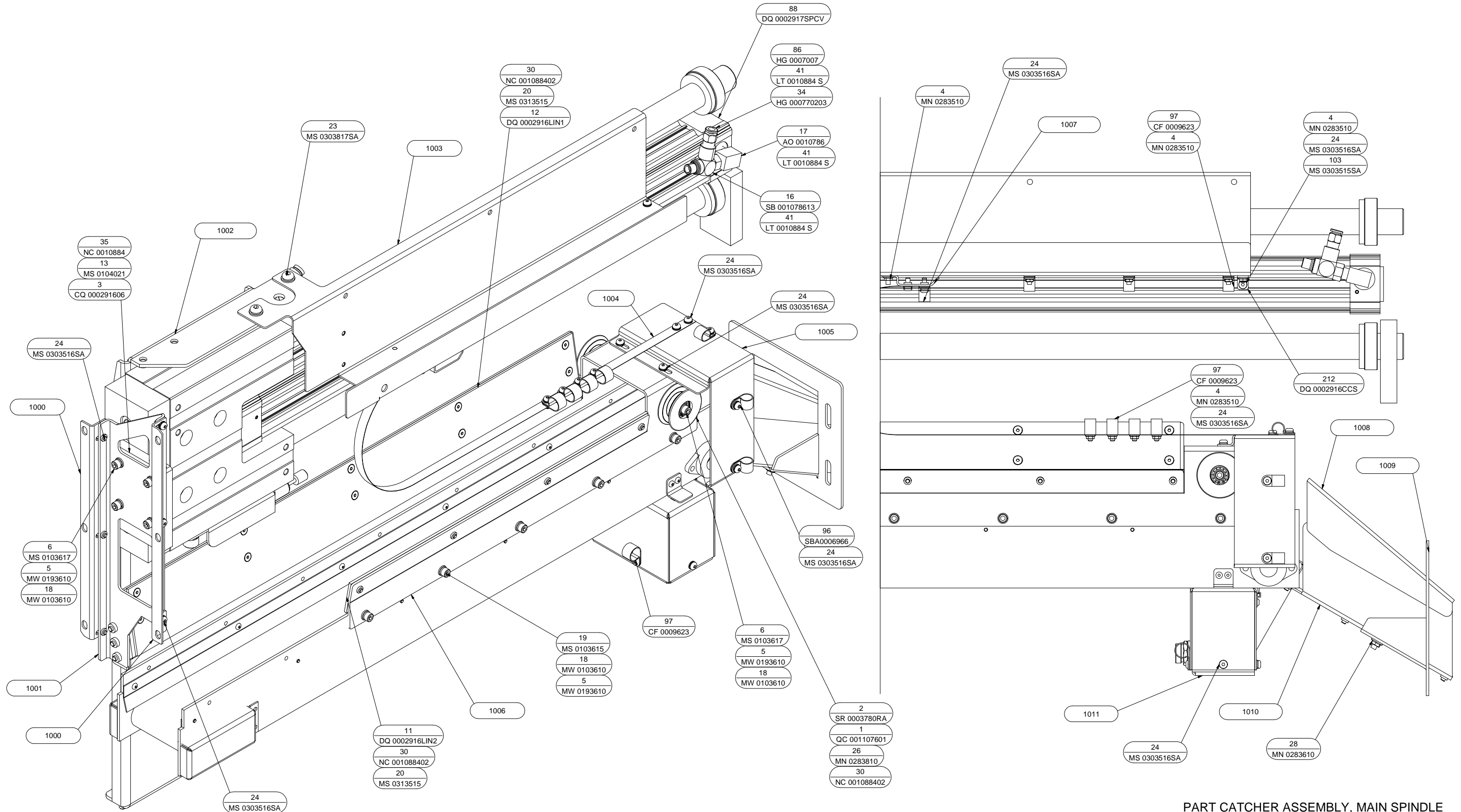
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	FG 0003650SE03	2	SWITCH, HEAD, WHITE, FL, ILL	13	ML 0010366 G	1	TAG, GROUND
2	FG 00028350000	1	SWITCH, 3 POSITION OPERATOR	14	CN 001204210	2	PLUG BODY 10 POSITION
3	CS 0006578	3	KNOB	15	ML 0012042	1	CONNECTOR
4	FG 0003650SE06	3	SWITCH, CONTACT, 1NO	16	CN 000786401	14	PIN, #22-20 AWG CRIMP
5	DQ 0003650SE03	1	SWITCH, KEY 3 POSITION	17	ML 000786402	18	PIN, CONNECTOR
6	CN 000283403	1	SWITCH, ROTARY (12 POSITIONS)	18	MG 001204202	1	CONNECTOR
7	CN 001011697	3	GASKET, ROTARY SWITCH	19	NV 00036500115	2	SWITCH, CONTACT, 1NC
8	CS 0007910	5	WASHER	20	F3 000997701	7	LABEL, ID
9	CS 000406803	3	NUT	21	CQA0010366	1	LABELS, PUSH BUTTONS, MTB
10	FG 0003650SE05	4	SWITCH, BODY/MOUNTING COLLAR	22	DQ 0002873OP02	1	WIRE PACKAGE, OPERATOR PANEL #2
11	TT 0002834	2	SWITCH, 26POS. GRAY CODE	23	DQ 0003650SS	1	SWITCH STOP
12	CQ 0010115SP01	0	PANEL, OPERATOR #2				

NOTE:  
If replacing GE switch components, the following items must be ordered together:

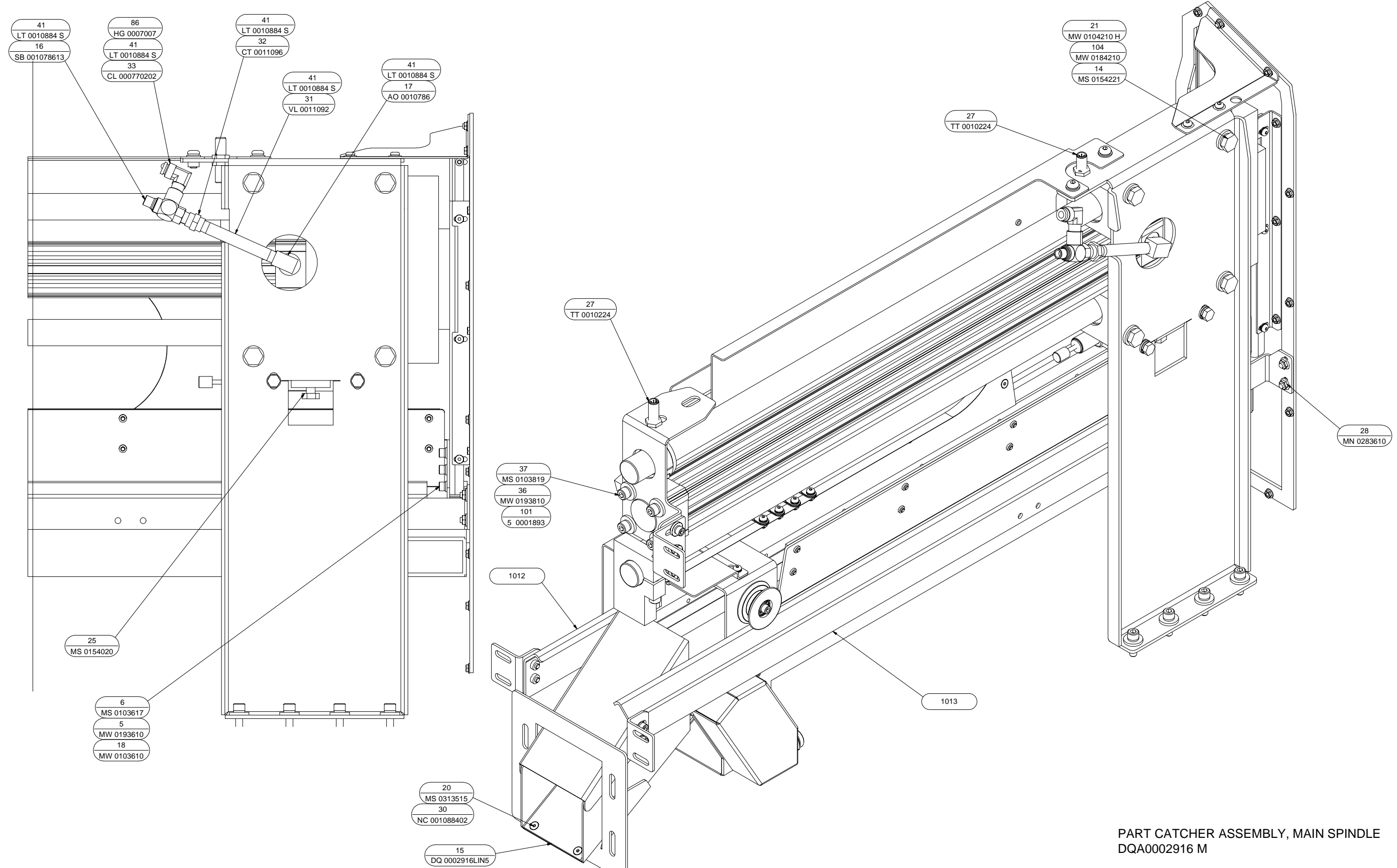
- SWITCH, HEAD
- SWITCH, CONTACT
- SWITCH, LIGHT BLOCK WHITE LED
- SWITCH, BODY/MOUNTING COLLAR
- LABELS, PUSH BUTTON



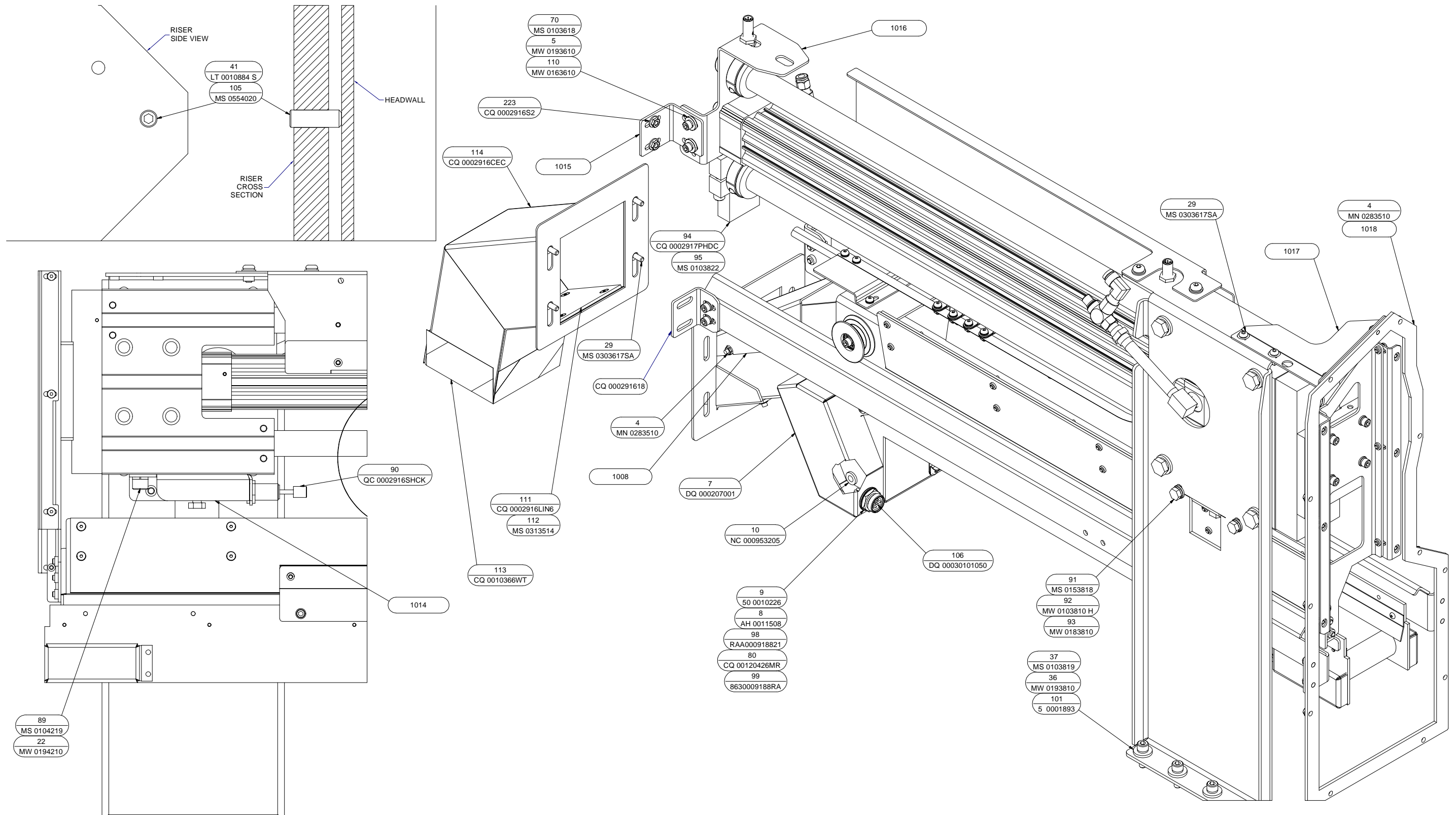
OPERATOR PANEL #2  
DQA001184402



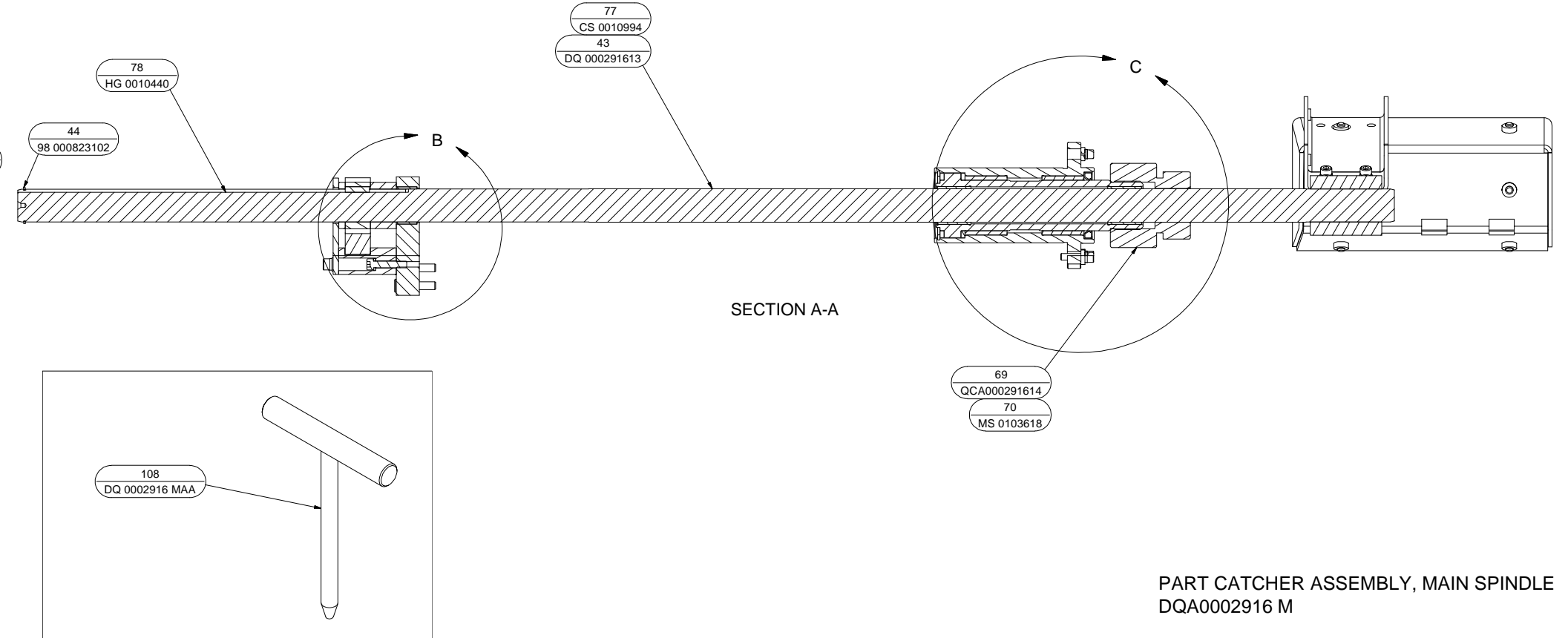
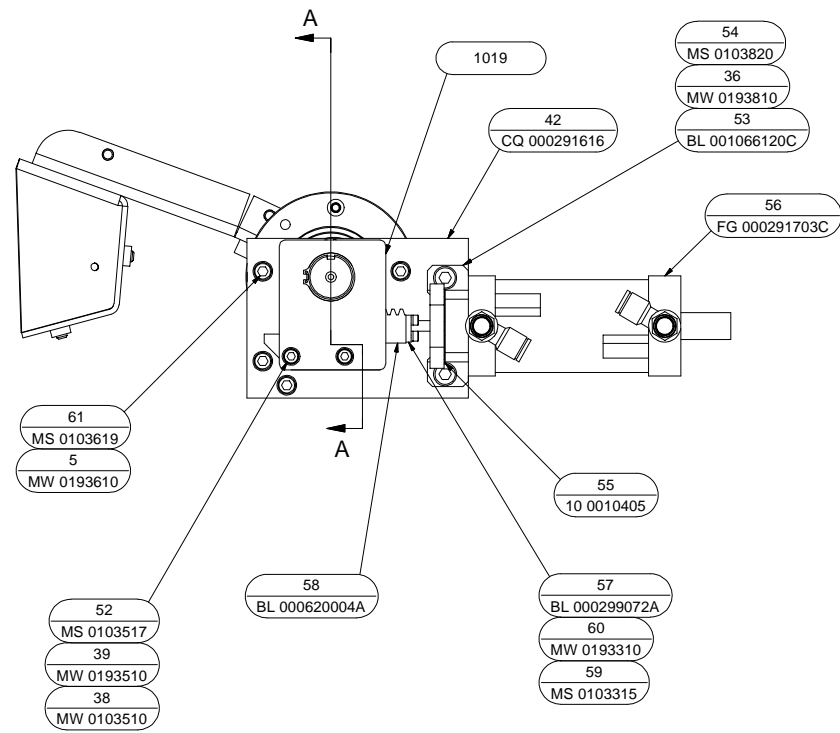
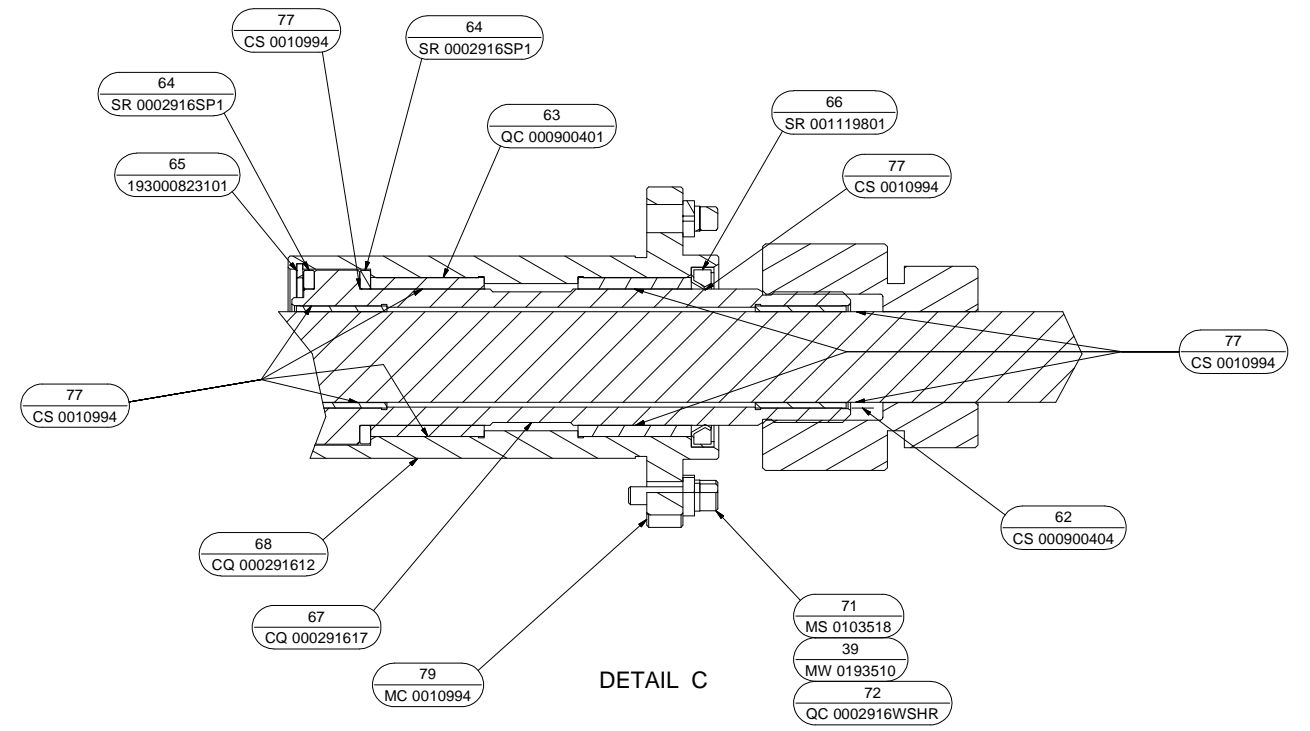
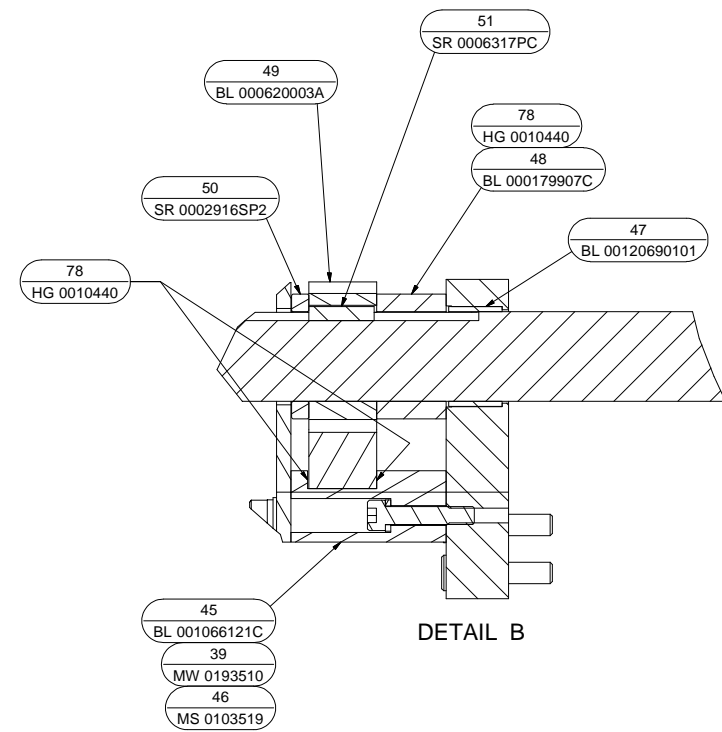
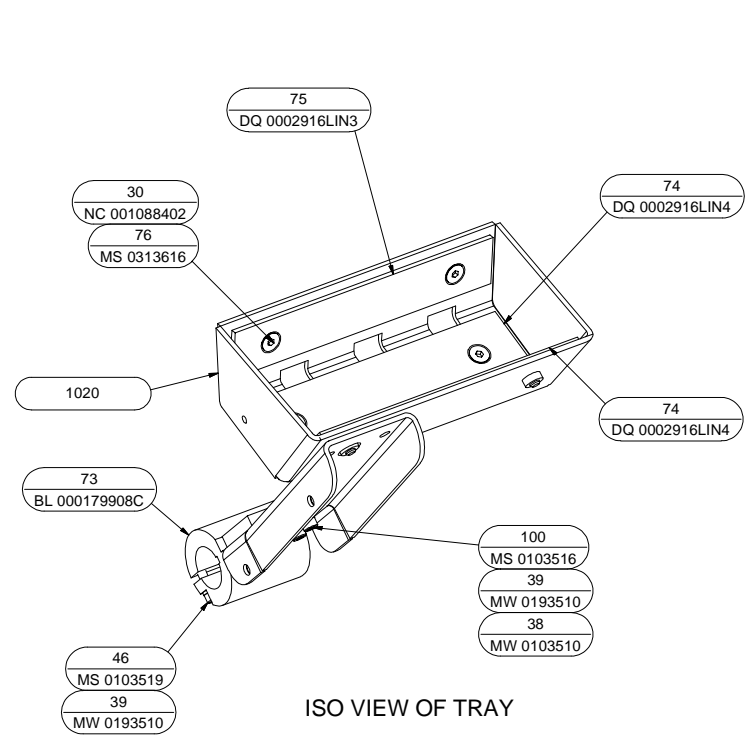
PART CATCHER ASSEMBLY, MAIN SPINDLE  
DQA0002916 M



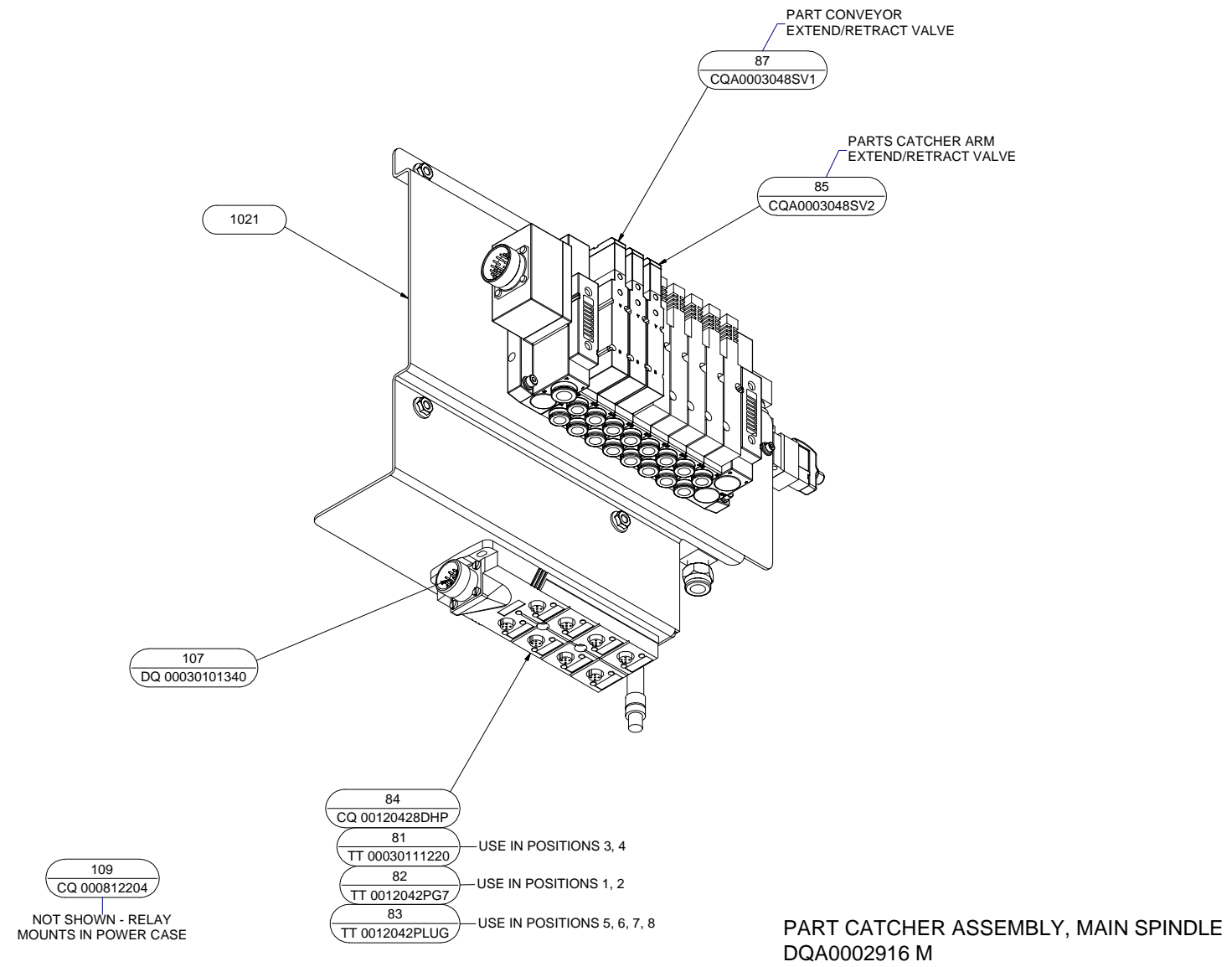
PART CATCHER ASSEMBLY, MAIN SPINDLE  
DQA0002916 M



PART CATCHER ASSEMBLY, MAIN SPINDLE  
DQA0002916 M



PART CATCHER ASSEMBLY, MAIN SPINDLE  
DQA0002916 M





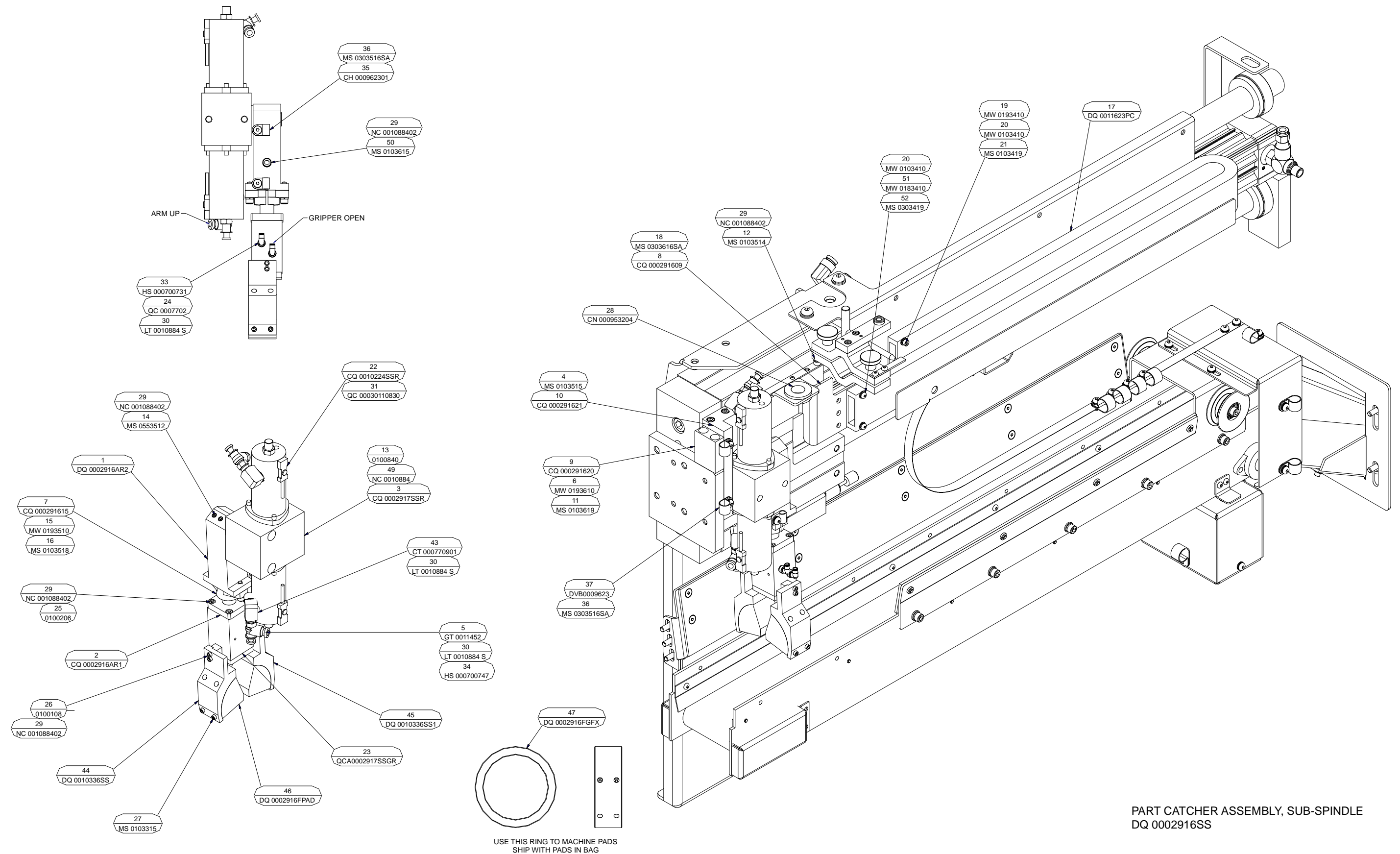
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 001107601	2	NUT DOOR ROLLER
2	SR 0003780RA	2	DOOR ROLLER ASSEMBLY, LOWER
3	CQ 000291606	1	PLATE, PARTS CATCHER MOUNTING
4	MN 0283510	32	NUT, SERRATED HEX FLANGE, M5X0.8
5	MW 0193610	25	WASHER, LOCK, M6
6	MS 0103617	9	SCREW, SHC, M6X1X16MM
7	DQ 000207001	1	CONVEYOR, PARTS CATCHER
8	AH 0011508	1	NUT, LOCK
9	50 0010226	1	GASKET ASSEMBLY, 1/2 INCH
10	NC 000953205	1	GROMMET
11	DQ 0002916LIN2	1	LINER, CONVEYOR
12	DQ 0002916LIN1	1	LINER, CONVEYOR
13	MS 0104021	4	SCREW, SHC, M10X1.5X35MM
14	MS 0154221	4	BOLT, HEX M12 X 1.75 X 35
15	DQ 0002916LIN5	1	LINER, RAMP
16	SB 001078613	2	FLOW CONTROL
17	AO 0010786	2	ELBOW, STREET
18	MW 0103610	21	WASHER, FLAT, M6
19	MS 0103615	12	SCREW, SHC, M6X1X10MM
20	MS 0313515	20	SCREW, FHC, M5 X 0.8 X 10MM
21	MW 0104210 H	4	WASHER, FLAT, HARD, M12
22	MW 0194210	1	WASHER, LOCK, M12
23	MS 0303817SA	2	SCREW ASSEMBLY, BHC M8X16MM
24	MS 0303516SA	24	SCREW ASSEMBLY, BH M5X.8X12
25	MS 0154020	1	BOLT, HEX M10 X 1.5 X 30
26	MN 0283810	2	NUT, SERRATED HEX FLANGE, M8X1.25
27	TT 0010224	2	SWITCH, PROXIMITY, 12M W/CON
28	MN 0283610	12	NUT, SERRATED HEX FLANGE, M6X1
29	MS 0303617SA	6	SCREW ASSEMBLY, M6X1X16MM
30	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
31	VL 0011092	1	NIPPLE, PIPE BRASS 1/4 X 4
32	CT 0011096	1	COUPLING, 1/8NPT HEX
33	CL 000770202	1	ELBOW, 1/4 NPT 5/16 TUBE
34	HG 000770203	1	CONNECTOR, MALE 1/4 STRAIGHT
35	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
36	MW 0193810	10	WASHER, LOCK, M8
37	MS 0103819	8	SCREW, SHC, M8X1.25X25MM
38	MW 0103510	6	WASHER, FLAT, M5
39	MW 0193510	15	WASHER, LOCK, M5
41	LT 0010884 S	0.1	SEALANT, PIPE
42	CQ 000291616	1	PLATE, PARTS CATCHER MOUNTING

ITEM	PART NUMBER	QTY	DESCRIPTION
43	DQ 000291613	1	SHAFT, PART TRAY
44	98 000823102	1	RING, RETAINING
45	BL 001066121C	1	SUPPORT, GEAR
46	MS 0103519	5	SCREW, SHC, M5X0.8X25MM
47	BL 00120690101	1	BUSHING
48	BL 000179907C	1	SPACER, PARTS CATCHER
49	BL 000620003A	1	GEAR, PARTS CATCHER
50	SR 0002916SP2	1	SPACER, PART CATCHER
51	SR 0006317PC	1	KEY, PART CATCHER GEAR
52	MS 0103517	2	SCREW, SHC, M5X0.8X16MM
53	BL 001066120C	1	SUPPORT, CYLINDER
54	MS 0103820	2	SCREW, SHC, M8X1.25X30MM
55	10 0010405	2	SHIM
56	FG 000291703C	1	CYLINDER, PARTS CATCHER, WITH SENSOR & FLOW CONTROLS
57	BL 000299072A	1	PLATE, CYLINDER
58	BL 000620004A	1	RACK, PARTS CATCHER
59	MS 0103315	4	SCREW, SHC, M3X0.5X10MM
60	MW 0193310	4	WASHER, LOCK, M3
61	MS 0103619	4	SCREW, SHC, M6X1X25MM
62	CS 000900404	2	BEARING, BUSHING
63	QC 000900401	2	BUSHING, SHAFT
64	SR 0002916SP1	2	SPACER
65	193000823101	1	RING, RETAINING
66	SR 001119801	1	SEAL, OIL
67	CQ 000291617	1	TUBE, PIVOT
68	CQ 000291612	1	SUPPORT, SHAFT
69	QCA000291614	1	COLLAR, CLAMPING
70	MS 0103618	3	SCREW, SHC, M6X1X20MM
71	MS 0103518	4	SCREW, SHC, M5X0.8X20MM
72	QC 0002916WSHR	4	WASHER, FLANGE M5
73	BL 000179908C	1	COUPLING, PARTS CATCHER
74	DQ 0002916LIN4	2	LINER, PART TRAY
75	DQ 0002916LIN3	1	LINER, PART TRAY
76	MS 0313616	6	SCREW, FHD SOC, M6 X 1.0 X 12
77	CS 0010994	0.1	GREASE
78	HG 0010440	0.1	GREASE, ANTI-SIEZE BLACK
79	MC 0010994	0.1	GREASE, SILICONE
80	CQ 00120426MR	1	RECEPTACLE, 6 PIN MALE
81	TT 00030111220	2	CABLE, PROXIMITY SWITCH 2.0M
82	TT 0012042PG7	2	CONNECTOR, M ST 5P M12 PG7
83	TT 0012042PLUG	4	PLUG, M12

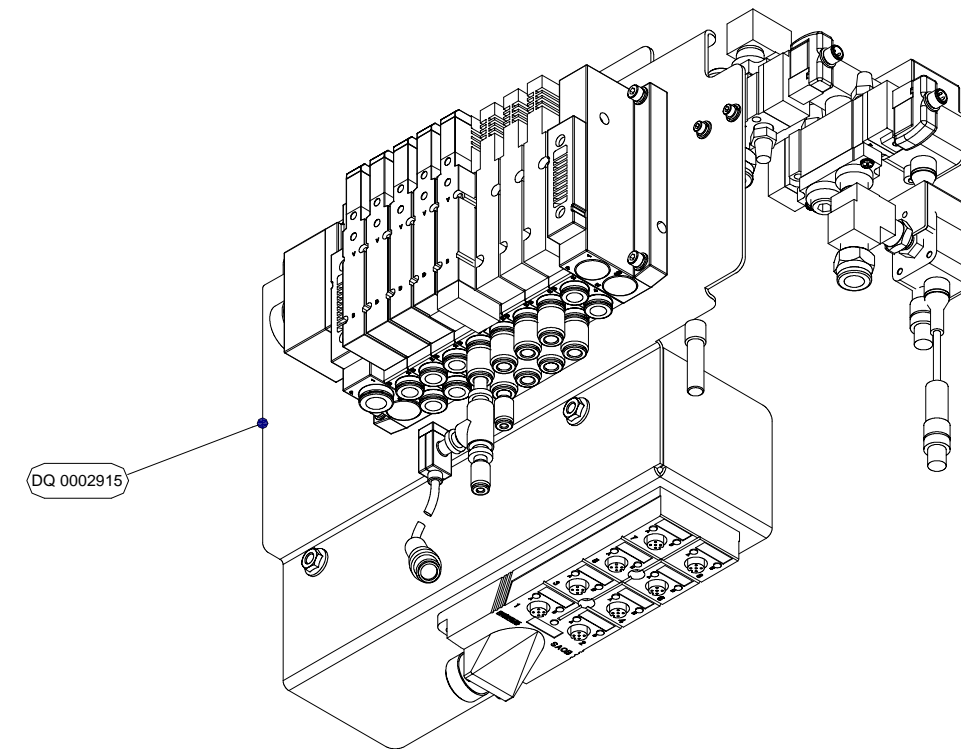
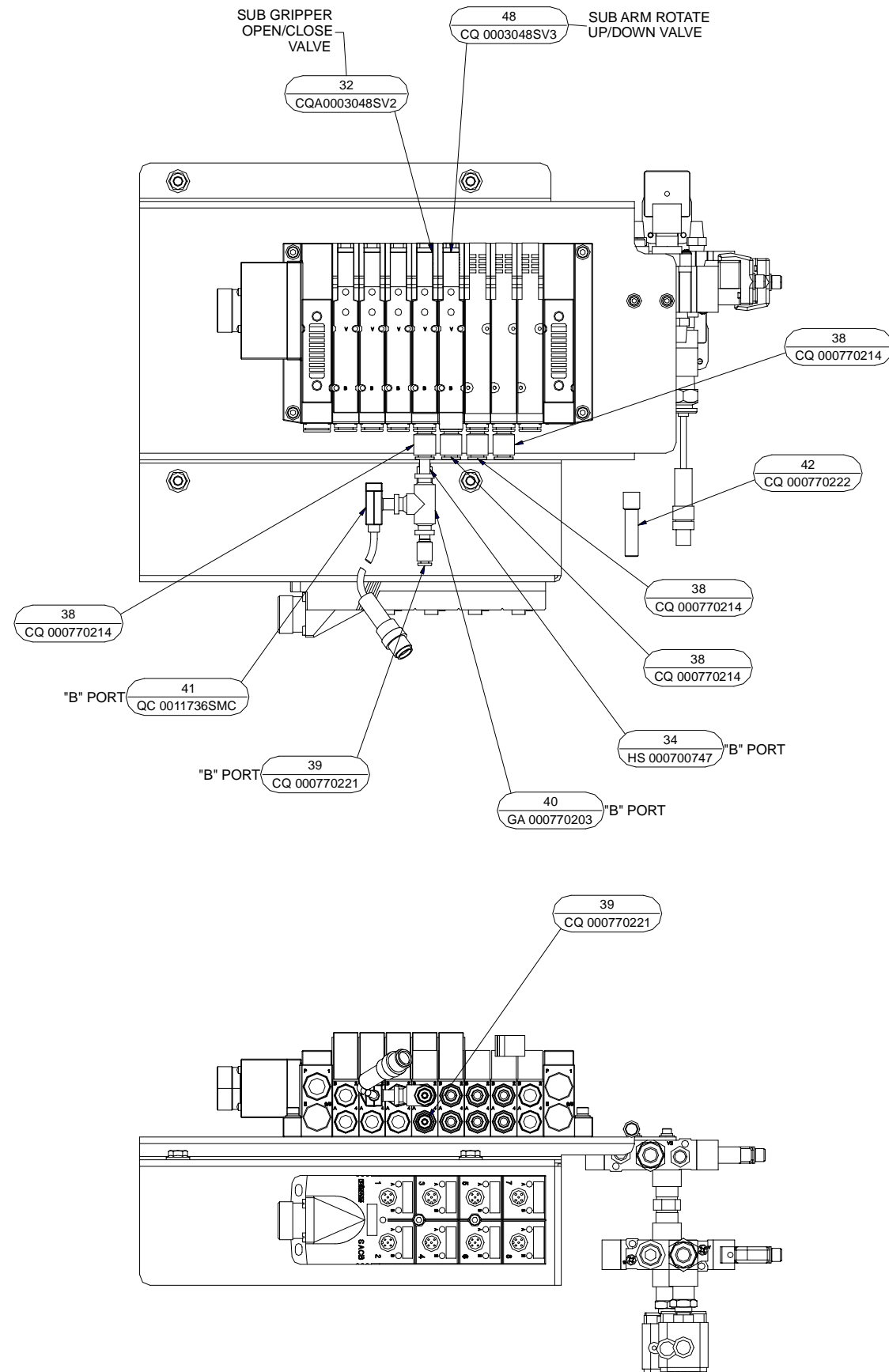
Part Catcher, Main Spindle

ITEM	PART NUMBER	QTY	DESCRIPTION
84	CQ 00120428DHP	1	I/O BLOCK, 8D POINT, H PLUG
85	CQA0003048SV2	1	VALVE, SV2200 AIR
86	HG 0007007	250	TUBING, 5/16 OD
87	CQA0003048SV1	1	VALVE, SV2A00 AIR
88	DQ 0002917SPCV	1	SLIDE, PART CATCHER
89	MS 0104219	1	SCREW, SHC, M12X1.75X25MM
90	QC 0002916SHCK	1	SHOCK ABSORBER
91	MS 0153818	2	BOLT, HEX M8 X 1.25 X 20
92	MW 0103810 H	2	WASHER, FLAT, HARD, M8
93	MW 0183810	2	WASHER, LOCK SQUARE END, M8
94	CQ 0002917PHDC	1	STOP COLLAR, SLIDE
95	MS 0103822	1	SCREW, SHC, M8X1.25X40MM
96	SBA0006966	3	CLAMP, PLASTIC
97	CF 0009623	9	CLAMP, PLASTIC
98	RAA000918821	5	BUTT SPLICE
99	8630009188RA	1	TERMINAL, #8 RING 18-22 AWG RED
100	MS 0103516	4	SCREW, SHC, M5X0.8X12MM
101	5 0001893	8	WASHER
102	DQA0002916SM	1	SHEET METAL KIT, PARTS CATCHER
103	MS 0303515SA	1	SCREW ASSEMBLY, BH M5X.8X10
104	MW 0184210	4	WASHER, LOCK, M12
105	MS 0554020	1	SCREW, SOC SET CUP M10x30
106	DQ 00030101050	1	CABLE, 809CBL
107	DQ 00030101340	1	CABLE, 6027CBL
108	DQ 0002916 MAA	1	TRAY ALIGNMENT TOOL
109	CQ 000812204	1	RELAY, SAFETY, 2NO/2NC
110	MW 0163610	2	WASHER, M6 HEAVY
111	CQ 0002916LIN6	1	LINER, RAMP
112	MS 0313514	4	SCREW, FHC, M5 X 0.8 X 10MM
113	CQ 0010366WT	18"	TAPE, RED/WHITE WARNING
114	CQ 0002916CEC	1	COVER, CONVEYOR EXIT
1000	CQ 000291608	-	BRACKET, PART CATCHER COVER
1001	DQ 000291607	-	BRACKET, PART CATCHER COVER
1002	DQ 0001990SPC	-	BRACKET, PART CATCHER COVER
1003	DQ 000291619	-	BRACKET, CABLE CARRIER
1004	DQ 0008416	-	STRIP, GUIDE
1005	CQ 0001990CCB	-	BRACKET, CONVEYOR CABLE
1006	DQ 000291604	-	GUIDE, PART CATCHER
1007	CQ 0001990CVC	-	BRACKET, CONVEYOR CABLE
1008	DQ 0002916RMC	-	COVER, PART CATCHER RAMP
1009	CQ 0002916RMS	-	BRACKET, RAMP SUPPORT

ITEM	PART NUMBER	QTY	DESCRIPTION
1010	DQ 0002916RMP	-	RAMP, PART CATCHER
1011	SR 001011524	-	COVER, CONVEYOR MOTOR
1012	DQ 000632402	-	GUIDE RAIL, PART CATCHER
1013	DQ 000632401	-	GUIDE RAIL, PART CATCHER
1014	CQ 0001990SHK	-	BRACKET, SHOCK ABSORBER
1015	CQ 0002916S2	-	BRACKET, CYLINDER SUPPORT
1016	CQ 0002916S1	-	BRACKET, SWITCH MOUNT
1017	CQ 000291622	-	STIFFENER, PART CATCHER
1018	DQ 000291602	-	FRAME, PART CATCHER
1019	SR 000291605	-	END PLATE, PART CATCHER
1020	DQ 0002916TRAY	-	TRAY, PART CATCHER
1021	DQ 0002915	-	AIR PANEL, MAIN

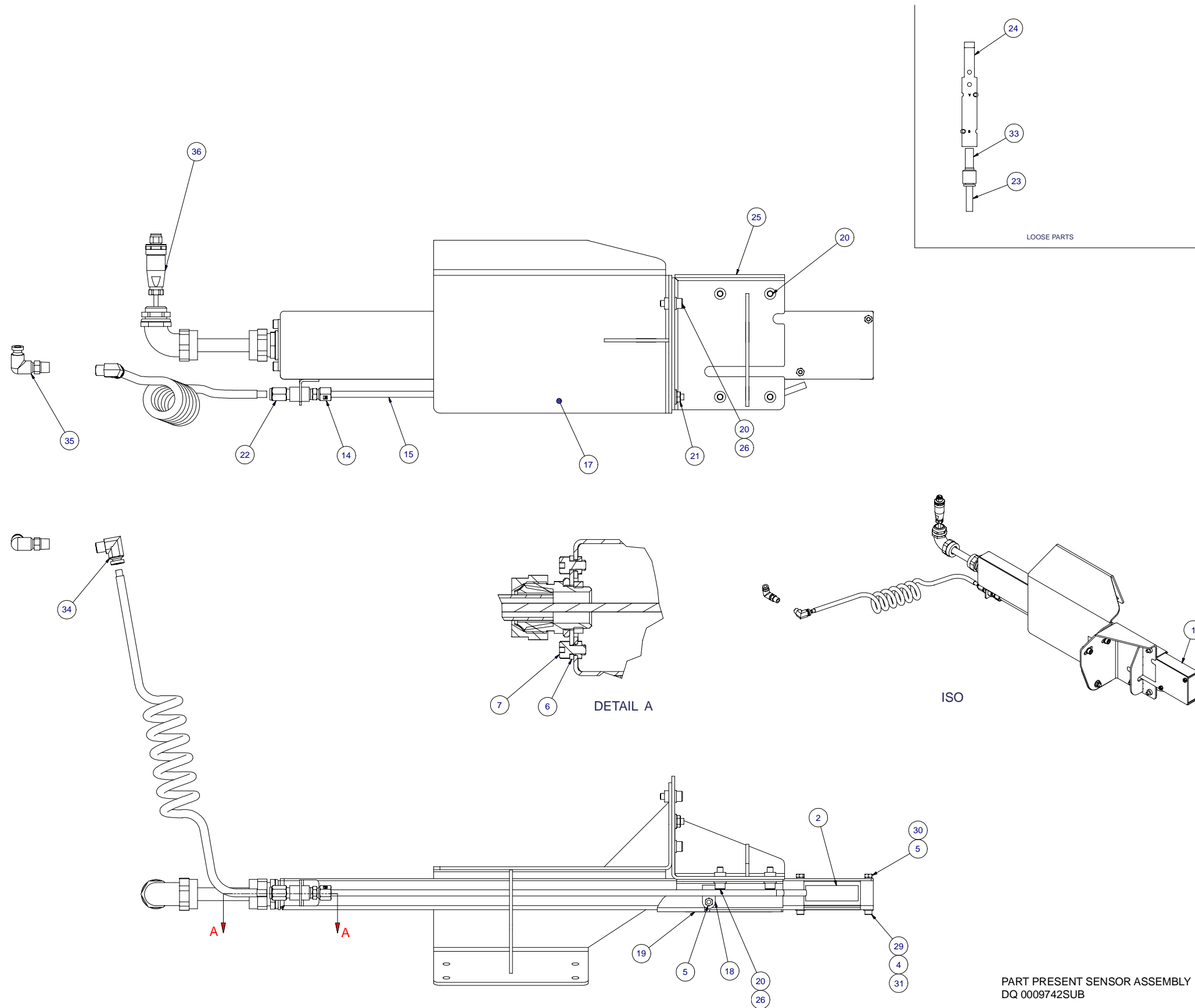


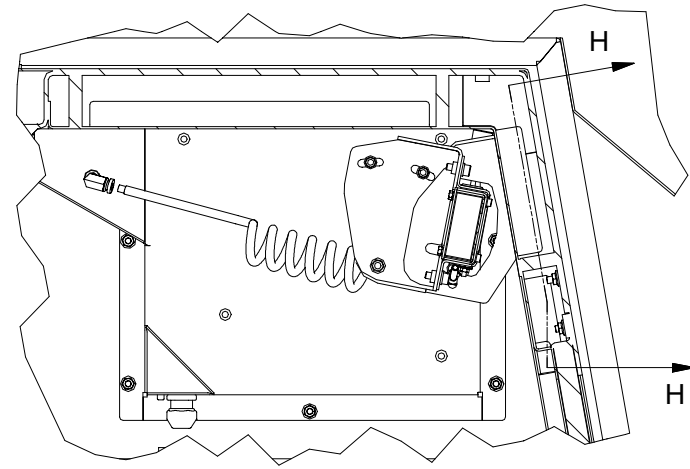
PART CATCHER ASSEMBLY, SUB-SPINDLE  
DQ 0002916SS



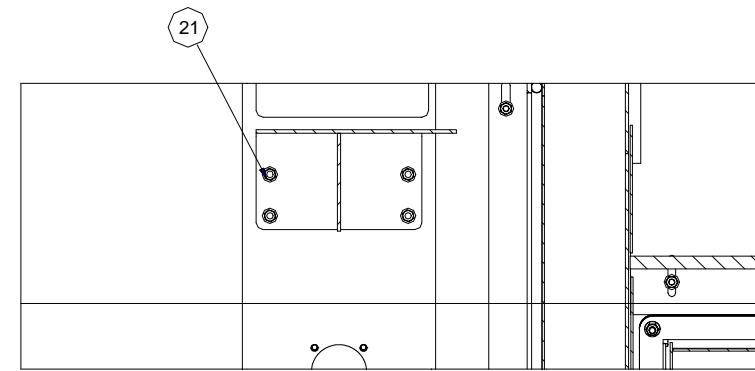
PART CATCHER ASSEMBLY, SUB-SPINDLE  
DQ 0002916SS

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0002916AR2	1	SUPPORT, ARM	41	QC 0011736SMC	1	SWITCH, PRESSURE
2	CQ 0002916AR1	1	SUPPORT, GRIPPER	42	CQ 000770222	1	PLUG, 5/16 TUBE FITTING
3	CQ 0002917SSR	1	ROTARY ACTUATOR	43	CT 000770901	2	ELBOW, STREET (WEATHERHEAD)
4	MS 0103515	2	SCREW, SHC, M5X0.8X10MM	44	DQ 0010336SS	1	FINGER, GRIPPER
5	GT 0011452	2	FLOW CONTROL, 1/8NPT 1/4 TUBE	45	DQ 0010336SS1	1	FINGER, GRIPPER
6	MW 0193610	2	WASHER, LOCK, M6	46	DQ 0002916FPAD	6	PAD, FINGERS
7	CQ 000291615	1	SHAFT SUPPORT	47	DQ 0002916FGFX	1	FIXTURE, SS PAD
8	CQ 000291609	1	BRACKET, CABLE CARRIER	48	CQ 0003048SV3	1	VALVE, SV2300-5FU AIR
9	CQ 000291620	1	PLATE, PARTS CATCHER GUIDE	49	NC 0010884	0.01	THREADLOCKER, LOCTITE 242
10	CQ 000291621	1	BRACKET, PARTS CATCHER MOUNT	50	MS 0103615	1	SCREW, SHC, M6X1X10MM
11	MS 0103619	2	SCREW, SHC, M6X1X25MM	51	MW 0183410	2	WASHER, LOCK, M6
12	MS 0103514	1	SCREW, SHC, M5X0.8X8MM	52	MS 0303419	2	SCREW, BTHD M4X0.7X25MM
13	0100840	2	SCREW, SHC, 1/4-20x1				
14	MS 0553512	2	SCREW, SOC. SET CUP M5X.8X5MM				
15	MW 0193510	2	WASHER, LOCK M5				
16	MS 0103518	2	SCREW, SHC, M5X0.8X20MM				
17	DQ 0011623PC	1	CABLE TRACK, PARTS CATCHER				
18	MS 0303616SA	2	SCREW ASSEMBLY, 6MX1X12MM				
19	MW 0193410	2	WASHER, LOCK, M4				
20	MW 0103410	4	WASHER, FLAT, M4				
21	MS 0103419	2	SCREW, SHC, M4X0.7X25MM				
22	CQ 0010224SSR	2	SWITCH, ROTARY ACTUATOR				
23	QCA0002917SSGR	1	GRIPPER, PARTS CATCHER				
24	QC 0007702	2	ELBOW, SWIVEL, 10-32 x 1/8 TUBE				
25	0100206	4	SCREW, SHC, 8-32 x 3/8				
26	0100108	4	SCREW, SHC, 6-32 x 1/2				
27	MS 0103315	8	SCREW, SHC, M3X0.5X10MM				
28	CN 000953204	1	GROMMET				
29	NC 001088402	0.1	THREADLOCKER, LOCTITE 222				
30	LT 0010884 S	0.1	SEALANT, PIPE				
31	QC 00030110830	2	CABLE, PROXIMITY SWITCH 3.0M				
32	CQA0003048SV2	1	VALVE, SV2200 AIR				
33	HS 000700731	244	TUBING, 1/8" FLEXIBLE				
34	HS 000700747	285	TUBING, 1/4 OD				
35	CH 000962301	2	CLAMP, PLASTIC				
36	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12				
37	DVB0009623	2	CABLE CLAMP, 7/16				
38	CQ 000770214	8	REDUCER, ONE TOUCH 5/16-1/4				
39	CQ 000770221	2	REDUCER, 1/8" TUBE X 1/4" TUBE				
40	GA 000770203	1	UNION TEE				

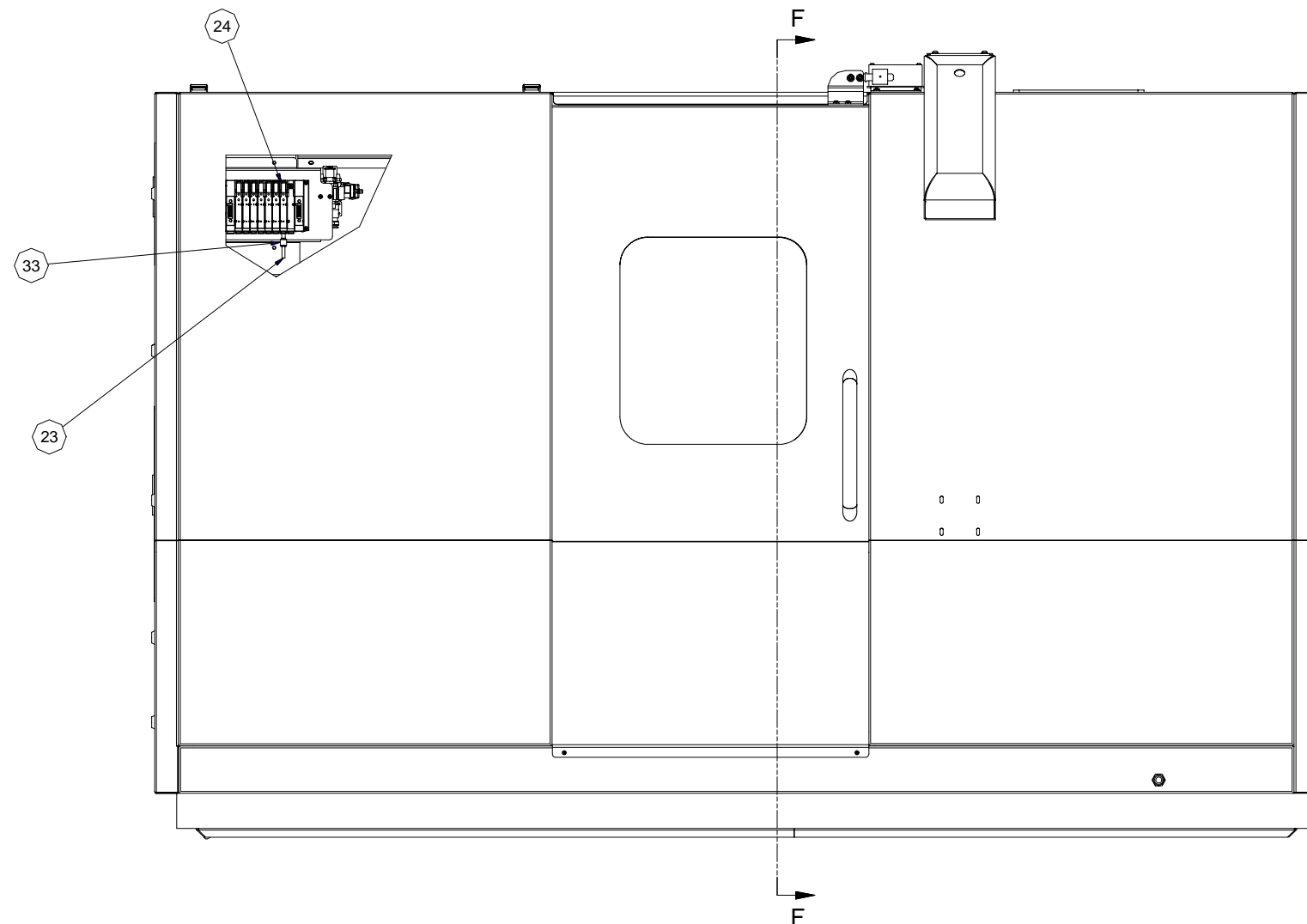




PARTIAL OF SECTION F



SECTION H-H



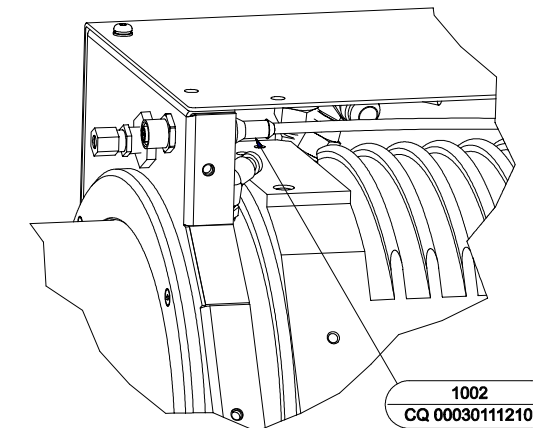
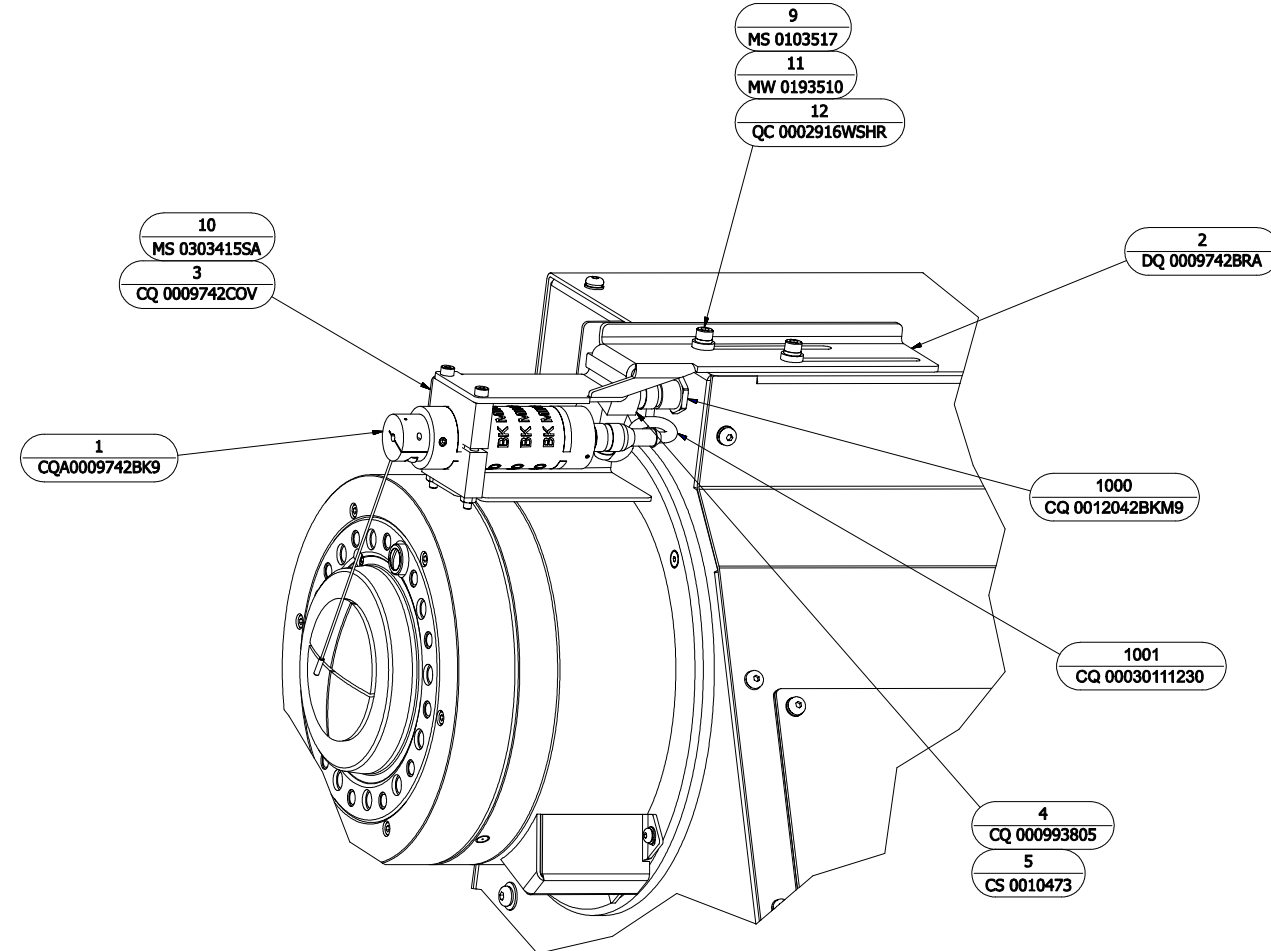
PART PRESENT SENSOR ASSEMBLY  
DQ 0009742SUB

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 000299049	1	HOLDER, PART PRESENT SENSOR
2	CQ 00028340004	1	PHOTO-ELETRIC SENSOR, BANNER Q60
4	MW 0103410	2	WASHER, FLAT, M4
5	MN 0113410	3	NUT, HEX, M4X0.7
6	CQ 000299050	1	CONDUIT PLATE
7	MS 0103514	2	SCREW, SHC, M5X0.8X8MM
14	QC 000770321	1	FITTING, COMPRESSION, 1/8 NPT
15	CQ 00070070402	1	TUBE, AIR BLAST EXTENSION
17	CQ 000299051	1	HOLDER BRACKET, PART PRESENT SENSOR
18	CH 000962302	1	CABLE CLAMP, 5/16
19	CQ 000299048	1	CLAMP, PART PRESENT SENSOR
20	MS 0103617	6	SCREW, SHC, M6X1X16MM
21	MN 0283610	5	NUT, SERRATED HEX FLANGE, M6X1
22	FR 000770204	1	CONNECTOR, STRAIGHT MALE
23	HS 000700747	250"	TUBING, 1/4 OD
24	CQA0003048SV1	1	VALVE, SV2A00 AIR
25	CQ 000299052	1	BRACKET, SWIVEL PART PRESENT
26	MW 0103610	6	WASHER, FLAT, M6
29	MS 0103421	2	SCREW, SHC, M4X0.7X35MM
30	MW 0193410	2	WASHER, LOCK, M4
31	CS 001088406	.01	THREADLOCKER, LOCTITE 290
33	CQ 000770214	1	REDUCER, ONE TOUCH 5/16-1/4
34	FR 000770203	1	CONNECTOR, 90 DEGREE
35	ST 0007703	1	FITTING, AIR SWIVEL
36	DQA00030101580	1	CABLE, LASER SENSOR



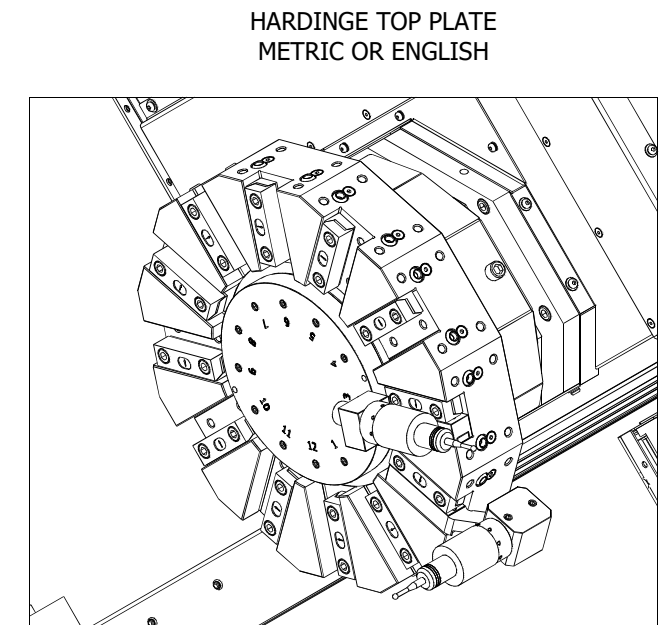
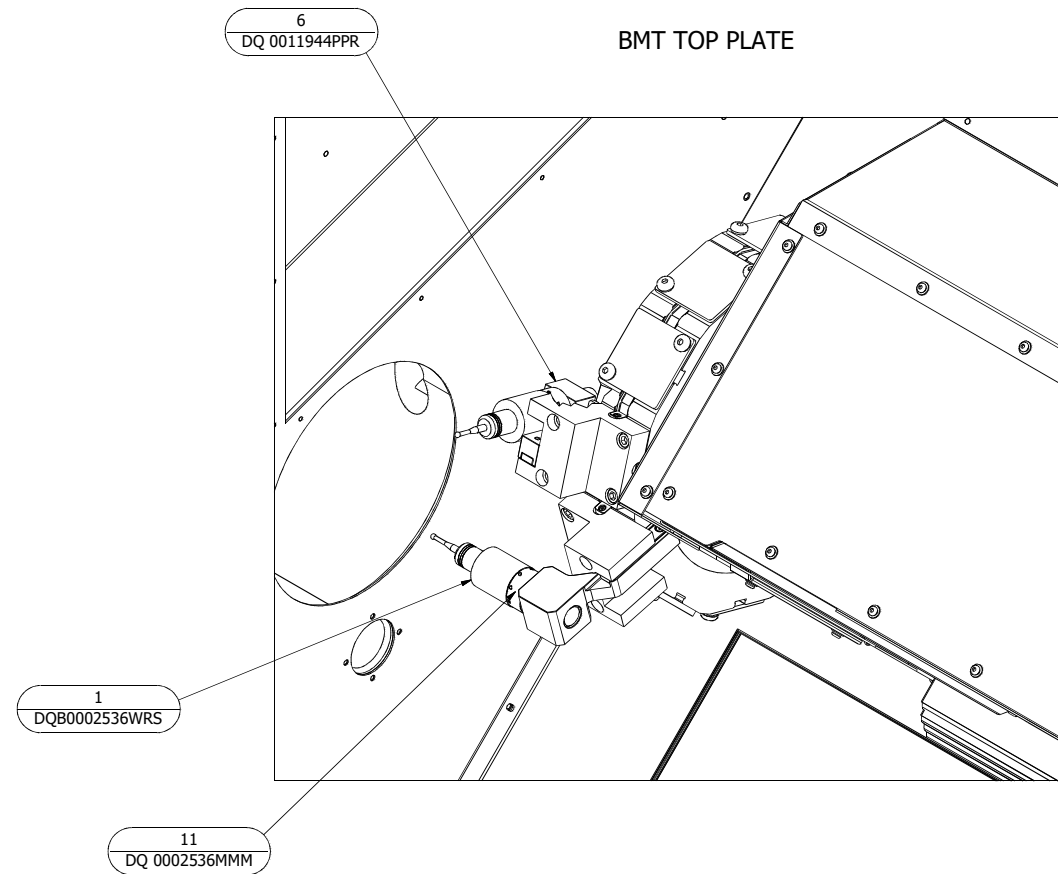
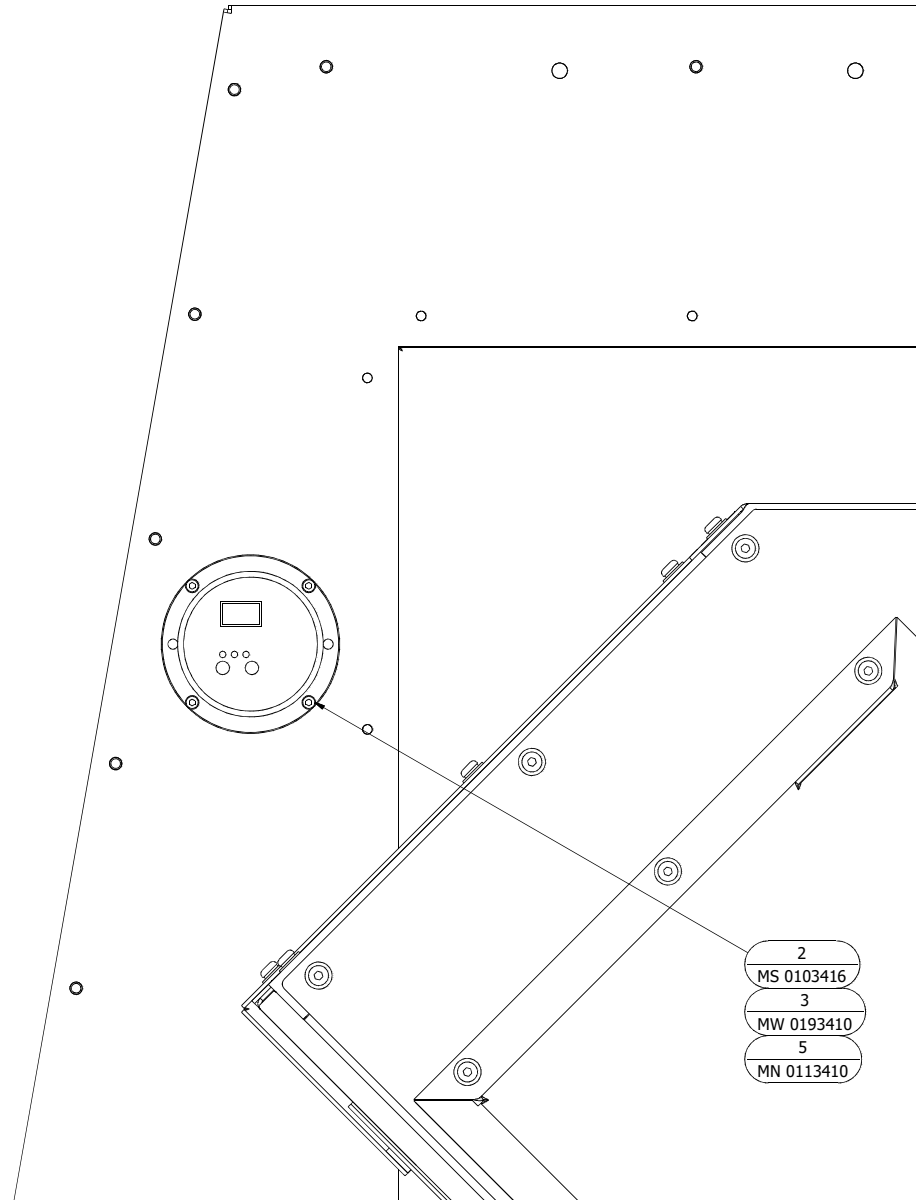
ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQA0009742BK9	1	PART DETECTION, BK MIKRO 9
2	DQ 0009742BRA	1	BRACKET, PART DETECTION
3	CQ 0009742COV	1	COVER, PART DETECTION
4	CQ 000993805	12"	SLEEVE, HIGH TEMP 0.50 ID
5	CS 0010473	3"	HEAT SHRINKABLE TUBING, 1"
6	CQ 00030101700	1	CABLE, 5742CBL
9	MS 0103517	2	SCREW, SHC, M5X0.8X16MM
10	MS 0303415SA	2	SCREW ASSEMBLY, M4X.7X10MM
11	MW 0193510	2	WASHER, LOCK, M5
12	QC 0002916WSHR	2	WASHER, FLANGE M5

ITEM	PART NUMBER	QTY	DESCRIPTION
13	MC 0010994	0.1	GREASE, SILICONE
14	CK 0008104	15	CABLE TIE
15	ML 0011032ES	2	END STOP
16	F3 000997701	1	ID LABEL
1000	CQ 0012042BKM9	-	CONNECTOR, M12-M12, M-F
1001	CQ 00030111230	-	CABLE, BK MICRO 9, 0.3M
1002	CQ 00030111210	-	CABLE, BK MICRO 9, 10M

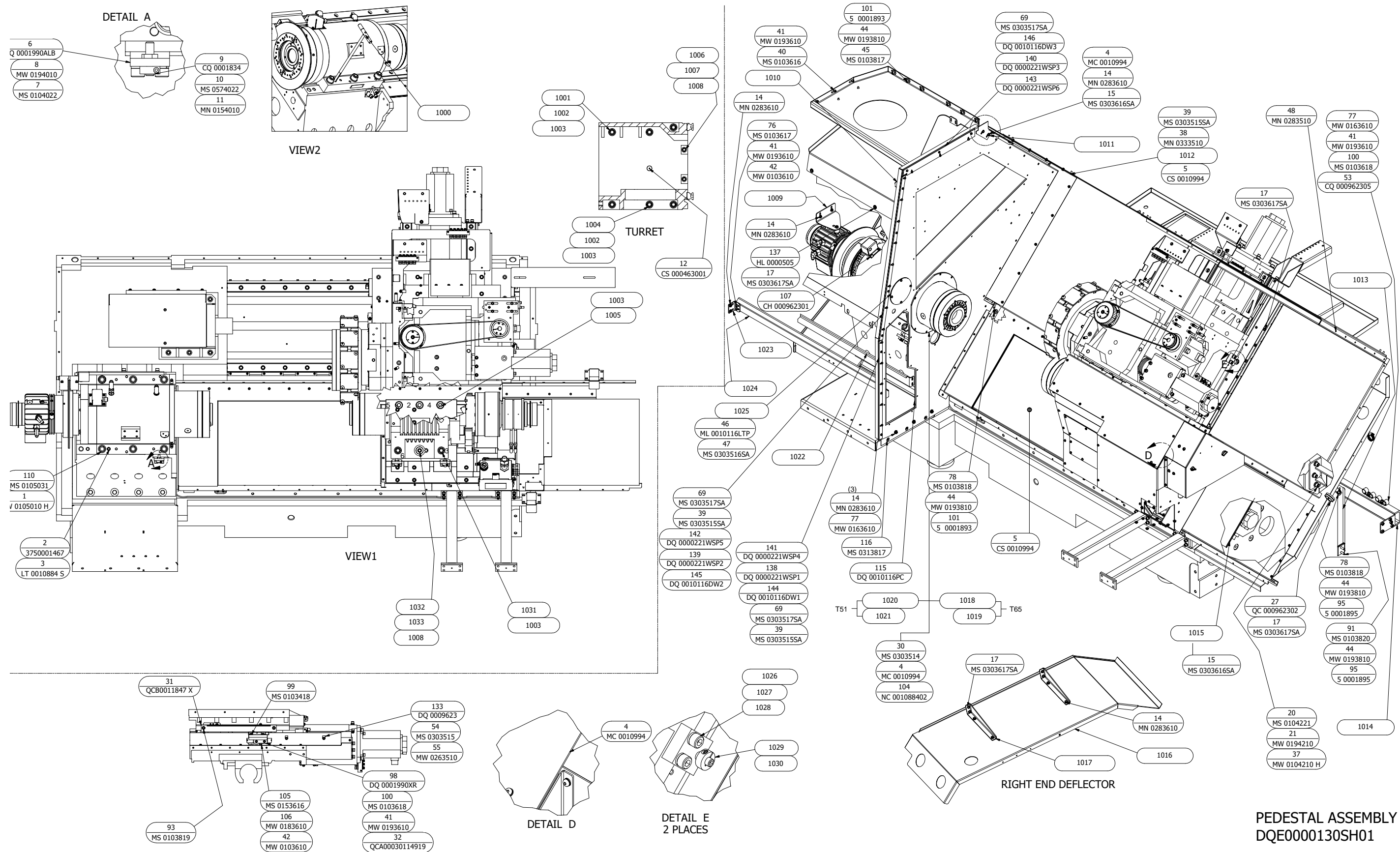


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 PART NUMBER: DQ 0009742BK9A  
 DRAWING NUMBER: LO 0005364

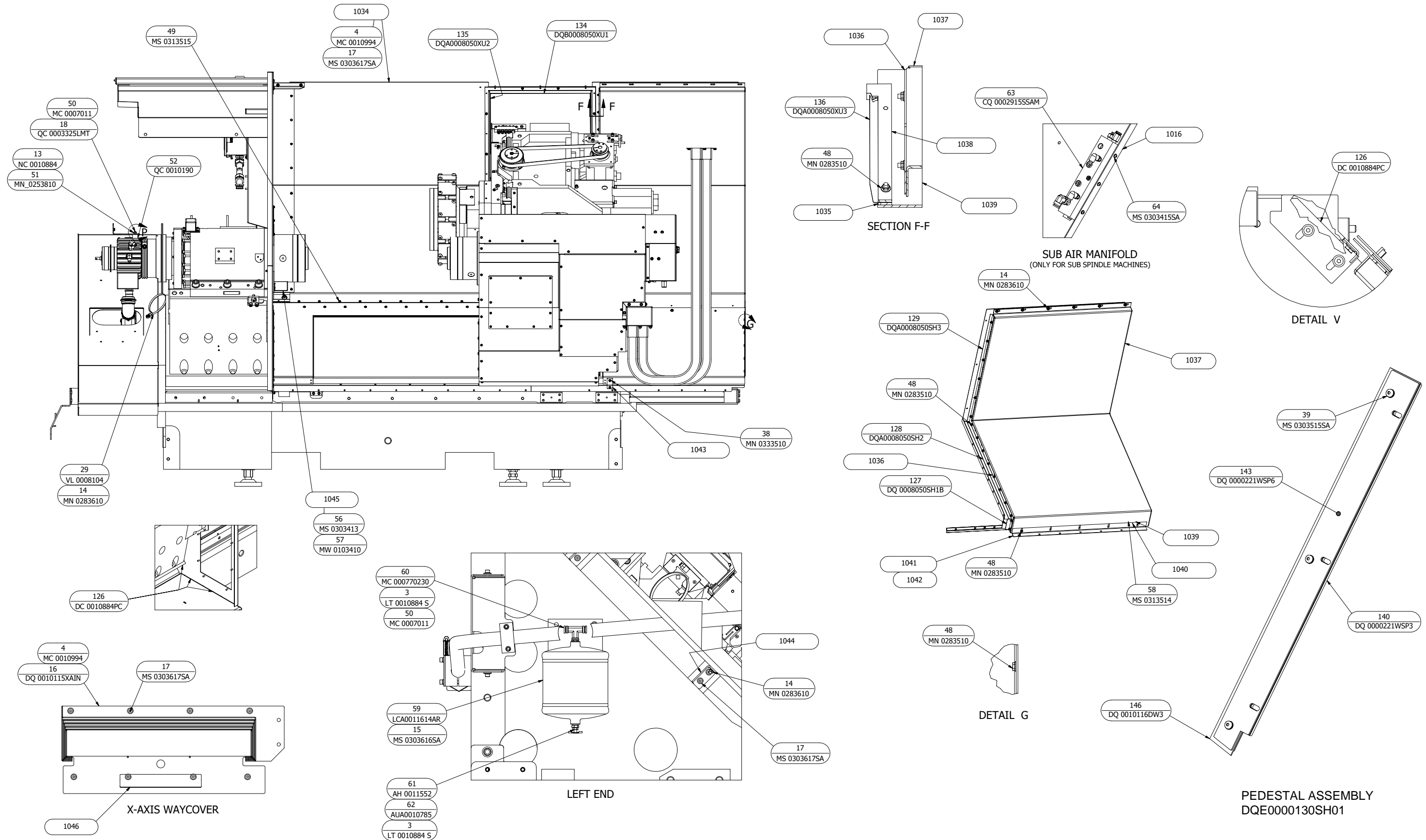
ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQB0002536WRS	1	PART PROBE, MARPOSS
2	MS 0103416	4	SCREW, SHC, M4X0.7X12MM
3	MW 0193410	4	WASHER, LOCK, M4
4	DQ 0011944PPA	1	AXIAL PART PROBE HOLDER
5	MN 0113410	4	NUT, HEX, M4X0.7
6	DQ 0011944PPR	1	RADIAL PART PROBE HOLDER
7	F3 0009977	2	LABEL CABLE
9	DQ 0003278HSS	1	ELEC KIT, HIGH SPEED SKIP
11	DQ 0002538MMM	1	MODIFIED PROBE MOUNT



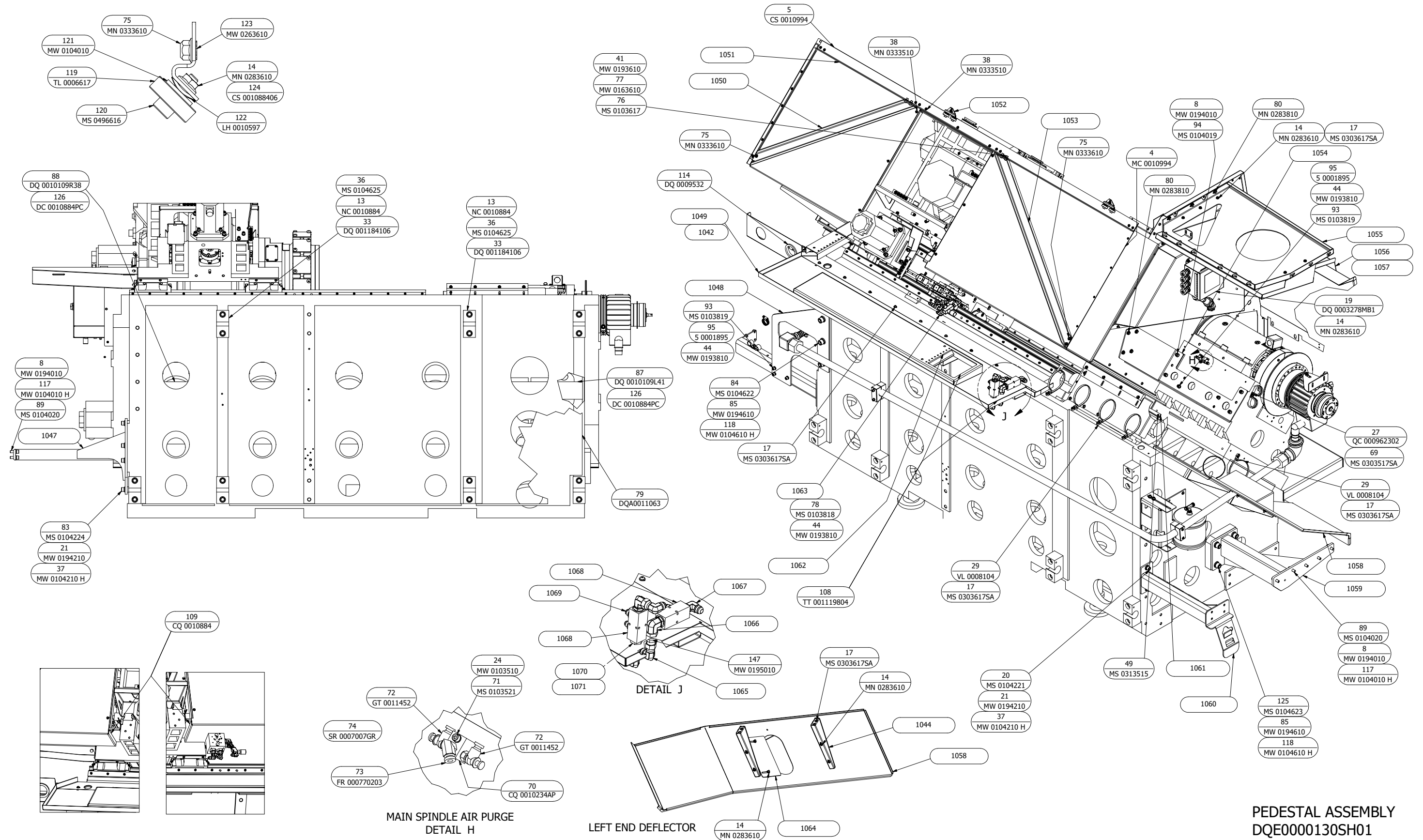
PART PROBE, MARPOSS  
PART NUMBER: DQ 0002536PPM  
DRAWING NUMBER: LO 0005255



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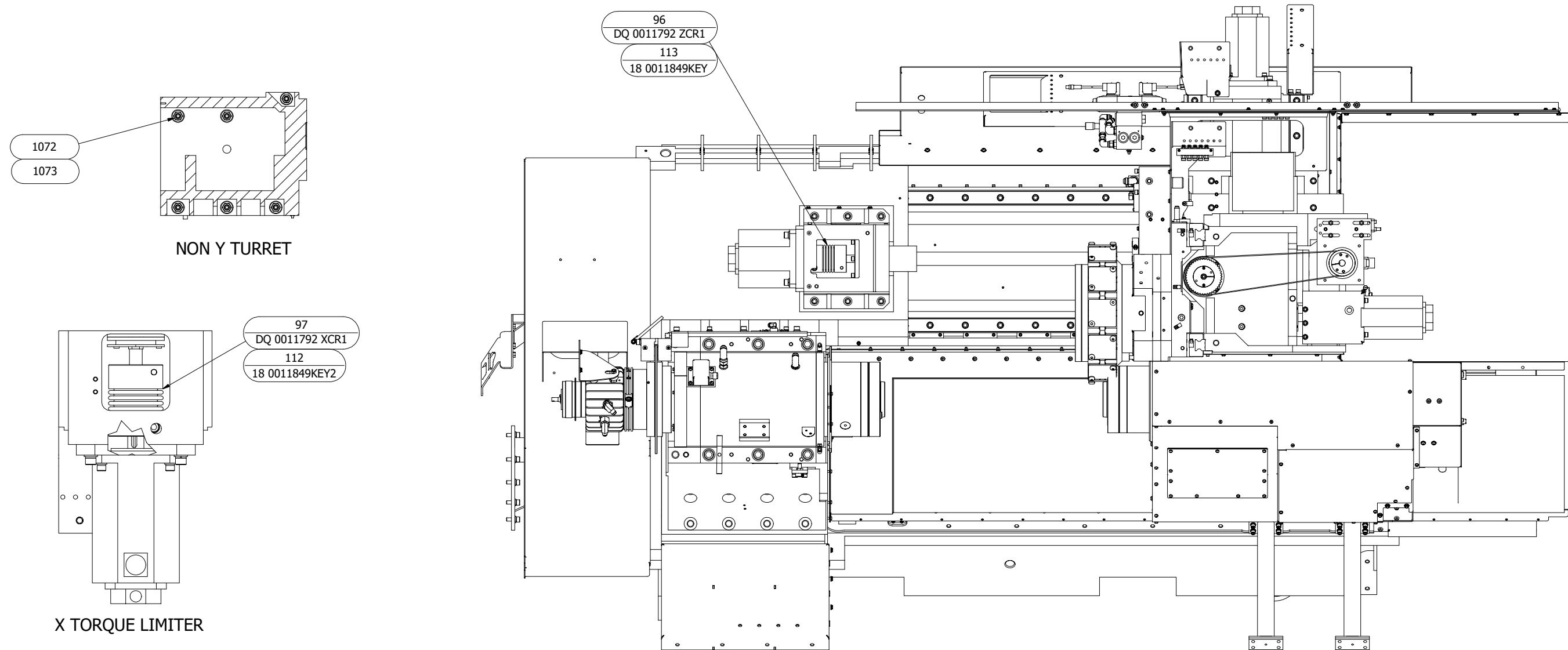
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DQE0000130SH01



MAIN SPINDLE AIR PURGE  
DETAIL H

LEFT END DEFLECTOR

PEDESTAL ASSEMBLY  
DQE0000130SH01



96  
DQ 0011792 ZCR1  
113  
18 0011849KEY

1072  
1073

NON Y TURRET

97  
DQ 0011792 XCR1  
112  
18 0011849KEY2

X TORQUE LIMITER

TOP VIEW

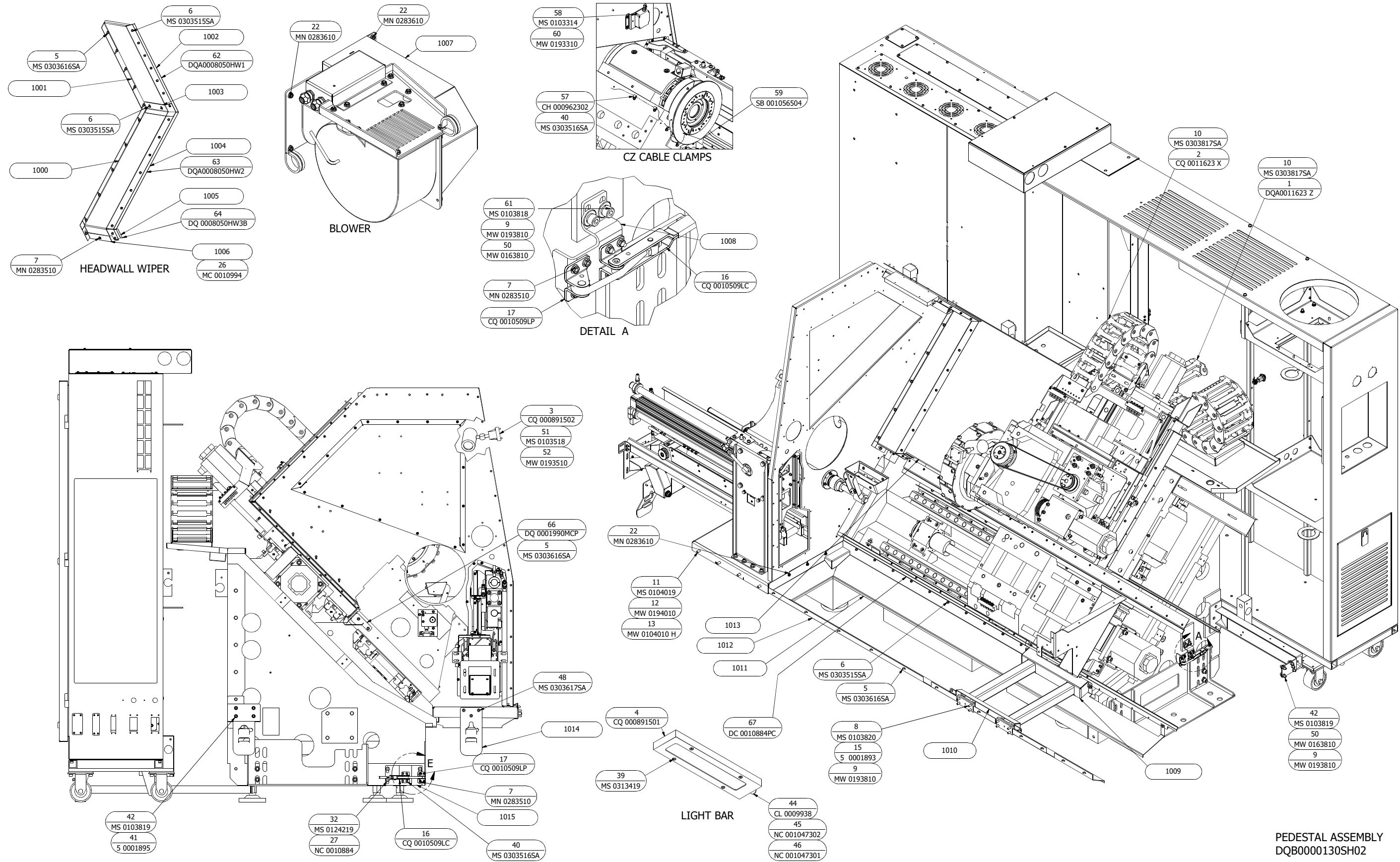
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ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	MW 0105010 H	8	WASHER, FLAT, HARD, M20	51	MN 0253810	1	NUT, LOCK M8
2	3750001467	1	PLUG, 3/8 PIPE HEX SOCKET	52	QC 0010190	1	STAND-OFF, COLLET CLOSER
3	LT 0010884 S	0.2	PIPE SEALANT, LOCTITE 592	53	CQ 000962305	4	CLAMP, HOSE
4	MC 0010994	0.3	GREASE, SILICONE	54	MS 0303515	3	SCREW, BTHD M5X0.8X10MM
5	CS 0010994	0.3	GREASE	55	MW 0263510	3	WASHER, EXTERNAL STAR M5
6	CQ 0001990ALB	1	BLOCK, ALIGNMENT	56	MS 0303413	2	SCREW, BTHD M4X0.7X6MM
7	MS 0104022	2	SCREW, SHC, M10X1.5X40MM	57	MW 0103410	2	WASHER, FLAT, M4
8	MW 0194010	15	WASHER, LOCK, M10	58	MS 0313514	7	SCREW, FHC, M5 X 0.8 X 10MM
9	CQ 0001834	1	COLLAR, THREADED SHAFT	59	LCA0011614AR	1	RECEIVER, AIR
10	MS 0574022	1	SCREW, SOC. SET, FLAT POINT M10X1.50X40MM	60	MC 000770230	1	CONNECTOR, MALE
11	MN 0154010	1	NUT, JAM M10 X 1.5	61	AH 0011552	1	1/8 DRAIN COCK
12	CS 000463001	1	DOWEL, TURRET PIVOT	62	AUA0010785	1	BUSHING, 1/4"M X 1/8"F HEX
13	NC 0010884	0.1	THREADLOCKER, LOCTITE 242	63	CQ 0002915SSAM	1	MANIFOLD ASSEMBLY, SUB SIDE AIR
14	MN 0283610	45	NUT, SERRATED HEX FLANGE, M6X1	64	MS 0303415SA	3	SCREW ASSEMBLY, M4X.7X10MM
15	MS 0303616SA	6	SCREW ASSEMBLY, 6MX1X12MM	69	MS 0303517SA	17	SCREW ASSEMBLY, BH M5X.8X16
16	DQ 0010115XAIN	1	WAYCOVER, X-AXIS	70	CQ 0010234AP	1	MANIFOLD, AIR PURGE
17	MS 0303617SA	51	SCREW ASSEMBLY, M6X1X16MM	71	MS 0103521	1	SCREW, SHC, M5X0.8X35MM
18	QC 0003325LMT	1	MOUNT, COOLANT PUMP ISOLATOR	72	GT 0011452	2	FLOW CONTROL, 1/8NPT 1/4 TUBE
19	DQ 0003278MB1	1	ELECTRICAL KIT, JUNCTION BOX	73	FR 000770203	1	CONNECTOR, 90 DEGREE
20	MS 0104221	6	SCREW, SHC, M12X1.75X35MM	74	SR 0007007GR	170"	TUBING, 1/4 OD
21	MW 0194210	13	WASHER, LOCK, M12	75	MN 0333610	6	NUT, PREVAILING LOCK M6 X 1
24	MW 0103510	1	WASHER, FLAT, M5	76	MS 0103617	8	SCREW, SHC, M6X1X16MM
27	QC 000962302	3	CLAMP, CABLE - 1-1/2	77	MW 0163610	9	WASHER, M6 HEAVY
29	VL 0008104	6	TIE, CABLE (15.2" LONG)	78	MS 0103818	5	SCREW, SHC, M8X1.25X20MM
30	MS 0303514	8	SCREW, BTHD M5X0.8X8MM	79	DQA0011063	1	INSULATION, BASE REAR
31	QCB0011847 X	1	SCALE, X-AXIS	80	MN 0283810	7	NUT, SERRATED HEX FLANGE, M8X1.25
32	QCA00030114919	1	CABLE	83	MS 0104224	7	SCREW, SHC, M12X1.75X50MM
33	DQ 001184106	7	BLOCK, BASE	84	MS 0104622	3	SCREW, SHC, M16X40MM
36	MS 0104625	14	SCREW, SHC, M16X2X55MM	85	MW 0194610	7	WASHER, LOCK, M16
37	MW 0104210 H	13	WASHER, FLAT, HARD, M12	87	DQ 0010109L41	1	TUBE, LEFT CABLE ROUTING
38	MN 0333510	24	NUT, PREVAILING LOCK M5 X 0.8	88	DQ 0010109R38	1	TUBE, RIGHT CABLE ROUTING
39	MS 0303515SA	14	SCREW ASSEMBLY, BH M5X.8X10	89	MS 0104020	9	SCREW, SHC, M10X1.5X30MM
40	MS 0103616	3	SCREW, SHC, M6X1X12MM	91	MS 0103820	2	SCREW, SHC, M8X1.25X30MM
41	MW 0193610	15	WASHER, LOCK, M6	93	MS 0103819	7	SCREW, SHC, M8X1.25X25MM
42	MW 0103610	5	WASHER, FLAT, M6	94	MS 0104019	4	SCREW, SHC, M10X1.5X25MM
44	MW 0193810	18	WASHER, LOCK, M8	95	5 0001895	9	WASHER
45	MS 0103817	6	SCREW, SHC, M8X1.25X16MM	96	DQ 0011792 ZCR1	1	COUPLING, Z AXIS
46	ML 0010116LTP	1	GASKET, TOOL PROBE	97	DQ 0011792 XCR1	1	COUPLING, X AXIS
47	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12	98	DQ 0001990XR	1	BRACKET, X-AXIS READER
48	MN 0283510	38	NUT, SERRATED HEX FLANGE, M5X0.8	99	MS 0103418	2	SCREW, SHC, M4X0.7X20MM
49	MS 0313515	12	SCREW, FHC, M5 X 0.8 X 10MM	100	MS 0103618	4	SCREW, SHC, M6X1X20MM
50	MC 0007011	140.5"	TUBING, 3/8 OD	101	5 0001893	7	WASHER

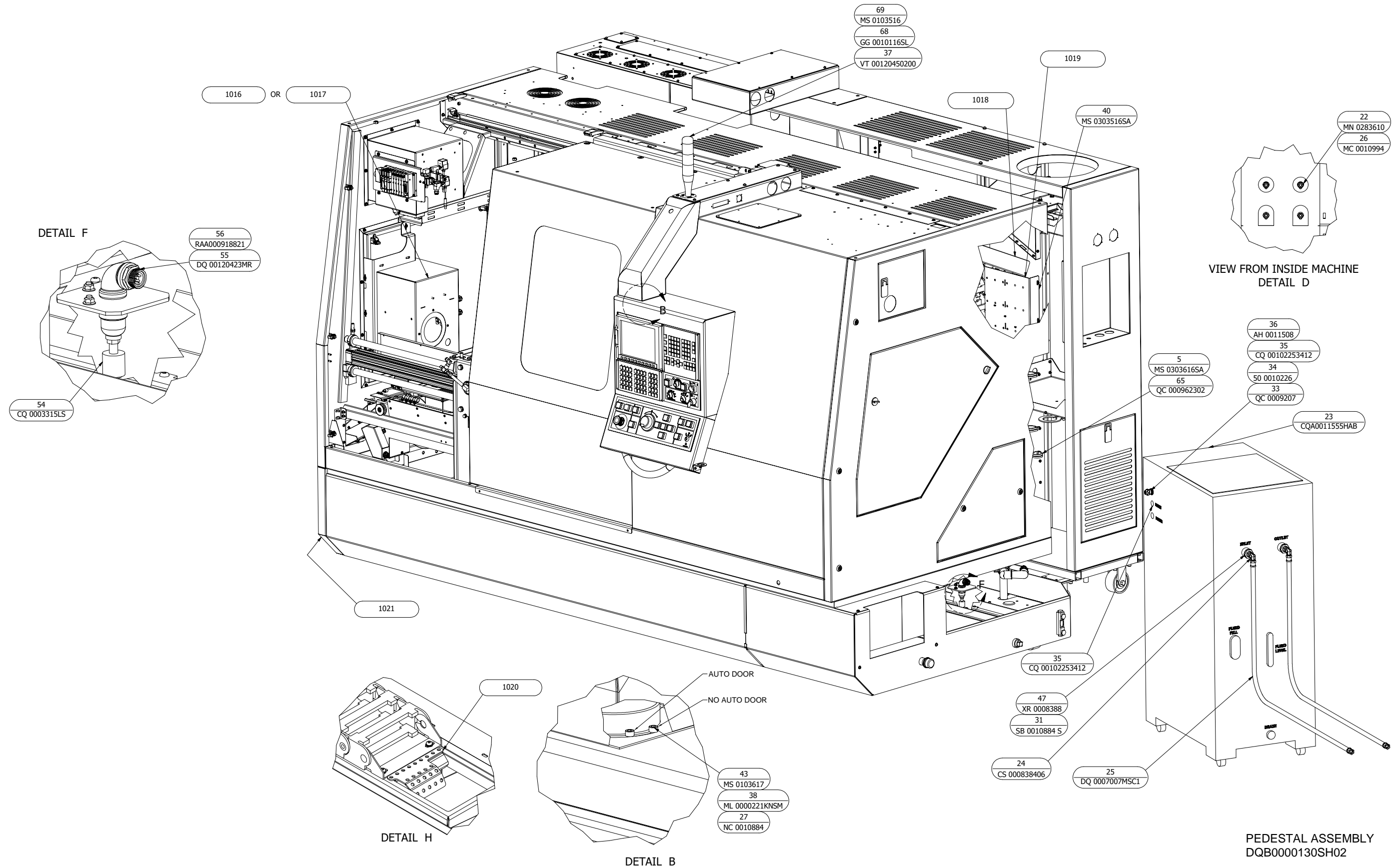
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
102	CK 0008104	200	TIE, WIRE	1000	CQ 0000002AE	-	TOOL, HEAD ALIGNMENT
103	AH 0009910	100	TIE, CABLE	1001	MS 0104627	-	SCREW, SHC M16X2X65
104	NC 001088402	0.1	THREADLOCKER, LOCTITE 222	1002	MW 0194610	-	WASHER, LOCK M16
105	MS 0153616	1	SCREW, HEX HD M6X1.0X12MM	1003	MW 0104610 H	-	WASHER, FLAT M16 HARDENED
106	MW 0183610	1	WASHER, LOCK REGULAR	1004	MS 0104625	-	SCREW, SHC M16X2X55
107	CH 000962301	1	CLAMP, PLASTIC	1005	MS 0104630	-	SCREW, SHC M16X2.0 X 80
108	TT 001119804	76"	TRIM SEAL	1006	MS 0104225	-	SCREW, SOC.HD.CAP M12X1.75X55
109	CQ 0010884	0.1	SEALANT, GREY 832	1007	MW 0104210 H	-	WASHER, FLAT M12 HARDENED
110	MS 0105031	8	SCREW, SHC, M20X2.5X90MM	1008	MW 0194210	-	WASHER, LOCK HI-COLLAR M12
112	18 0011849KEY2	1	HALF KEY	1009	DQ 0000221ANTR	-	BRACKET, ANTI ROTATION
113	18 0011849KEY	1	HALF KEY	1010	DQ 0000221HW	-	HEADWALL
114	DQ 0009532	1	GROMMET	1011	DQ 0000221HWWT	-	BRACKET, HEADWALL
115	DQ 0010116PC	1	GASKET, PARTS CATCHER	1012	DQA0010115WLE	-	EXTENSION, LEFT WAYCOVER
116	MS 0313817	3	SCREW, FHD SOC, M8 X 1.25 X 16	1013	DQ 0000221GUSA	-	GUSSET, REAR
117	MW 0104010 H	9	WASHER, FLAT, HARD, M10	1014	DQ 0000221SRN	-	BRACKET, RIGHT REAR FRAME
118	MW 0104610 H	7	WASHER, FLAT, HARD, M16	1015	DQ 0010115Z2	-	COVER, E AXIS MOTOR
119	TL 0006617	4	BEARING, 10X30X9MM	1016	DQ 0000221TR2	-	DEFLECTOR, RIGHT END
120	MS 0496616	4	SCREW, SOC HD SHLD 010/M6X12MM	1017	DQ 0000221TR2B	-	BRACKET, DEFLECTOR
121	MW 0104010	4	WASHER, FLAT, M10	1018	EQ 0000343A	-	RING, COOLANT (T65 LATHE)
122	LH 0010597	4	WASHER, CURVED, 25/64	1019	OR 0148154	-	O-RING (T-65 LATHE)
123	MW 0263610	2	WASHER, EXTERNAL STAR M6	1020	DQ 000034351A	-	RING, COOLANT (T51 LATHE)
124	CS 001088406	0.04	THREADLOCKER, LOCTITE 290	1021	OR 0140146	-	O-RING (T-51 LATHE)
125	MS 0104623	4	SCREW, SHC, M16X2X45MM	1022	DQ 000632402	-	GUIDE RAIL, PART CATCHER
126	DC 0010884PC	0.1	CLEAR SILICONE	1023	CQ 000291618	-	BRACKET, PC RAIL SUPPORT
127	DQ 0008050SH1B	1	WIPER, REAR SUPPORT	1024	DQ 000632401	-	GUIDE RAIL, PART CATCHER
128	DQA0008050SH2	1	WIPER, REAR SUPPORT	1025	ML 0010115LTP	-	COVER, MACHINE WITHOUT TOOL PROBE
129	DQA0008050SH3	1	WIPER, REAR SUPPORT	1026	CQ 0001990ALB	-	BRACKET, ALIGNMENT
133	DQ 0009623	3	CLAMP, PLASTIC	1027	MW 0194010	-	WASHER, LOCK HI-COLLAR M10
134	DQB0008050XU1	1	WIPER, X CENTER	1028	MS 0104022	-	SCREW, SOC HD CAP M10-1.5 X 4
135	DQA0008050XU2	1	WIPER, X RIGHT	1029	CQ 0001834	-	COLLAR, THREADED SHAFT
136	DQA0008050XU3	1	WIPER, X RIGHT	1030	MS 0574022	-	SCREW, SET M10 X 40
137	HL 0000505	2	WASHER	1031	MS 0104628	-	SCREW, SOC HD CAP M16-2.0X70
138	DQ 0000221WSP1	1	PLATE, LOWER WIPER SUPPORT	1032	MS 0104227	-	SCREW, SHC M12X1.75 X 65
139	DQ 0000221WSP2	1	PLATE, MID WIPER SUPPORT	1033	DQ 0011304	-	BUSHING
140	DQ 0000221WSP3	1	PLATE, UPPER WIPER SUPPORT	1034	DQ 0010115WL	-	WAYCOVER, LEFT Z-AXIS
141	DQ 0000221WSP4	1	PLATE, LOWER WIPER SUPPORT	1035	DQ 0010115WP1	-	RETAINER, BACK WIPER
142	DQ 0000221WSP5	1	PLATE, MID WIPER SUPPORT	1036	DQ 0001990RSWR	-	RETAINER, REAR WIPERS
143	DQ 0000221WSP6	1	PLATE, UPPER WIPER SUPPORT	1037	DQ 0006418	-	SUPPORT, WAYCOVER
144	DQ 0010116DW1	1	WIPER, DOOR LOWER	1038	DQ 0010115WP2	-	RETAINER, FRONT WIPER
145	DQ 0010116DW2	1	WIPER, DOOR MID	1039	DQ 0010115WR	-	WAYCOVER, RIGHT Z-AXIS
146	DQ 0010116DW3	1	WIPER, DOOR UPPER	1040	DQ 0008050UPCW	-	WIPER, UPPER Z WAYCOVER
147	MW 0195010	2	WASHER, LOCK, M20	1041	DQ 0000221ZSF	-	FLANGE, Z WAYCOVER SUPPORT



ITEM	PART NUMBER	QTY	DESCRIPTION
1042	MC 0010994	-	GREASE, SILICONE
1043	DQ 0001990RSTB	-	BRACKET, REAR STATIONARY COVER
1044	DQ 0000221HDPB	-	BRACKET, DEFLECTOR
1045	QB 0010115LD	-	COVER, MOTOR DRIP
1046	CQ 0001990CD	-	COVER, CARRIAGE DRAIN
1047	DQ 0000221RSTU	-	STRUT, RIGHT
1048	DQ 0000221GUSR	-	GUSSET, REAR
1049	DQ 0000221TR1	-	TRAY, REAR
1050	DQ 0001990WRS	-	STIFFENER, RIGHT WAYCOVER
1051	DQ 0010115CT	-	SUPPORT, TOP CENTER
1052	DQ 0001990ZWR	-	ROLLER BRACKET, Z AXIS WAYCOVER
1053	DQ 0001990WLS	-	STIFFENER, LEFT WAYCOVER
1054	DQ 0000221BPED	-	SUPPORT, GUARD
1055	DQ 0001990HST	-	BRACKET, HEADWALL UPPER
1056	DQ 0000221SCC1	-	TOP COVER, SPINDLE COMPARTMENT
1057	DQ 0000221SCC2	-	FRONT COVER, SPINDLE COMPARTMENT
1058	DQ 0000221HDP	-	DEFLECTOR, HEAD
1059	DQ 0000221LSTU	-	STRUT, LEFT
1060	DQ 0000221SLN	-	BRACKET, LOWER LEFT COVER
1061	DQ 0001990WEXT	-	WIPER PLATE
1062	DQ 0000221JCAP	-	BRACKET, CABLE
1063	CQA0000133	-	HYDRAULIC UNIT
1064	DQ 0000221FDSU	-	SUPPORT, FREE DRAIN TUBE
1065	CS 000838406	-	ADAPTER, 90 SWIVEL
1066	CQ 000770225	-	ELBOW, -8 SAE X -8 SAE
1067	CQ 000770218	-	ELBOW, -8 JIC X -8 SAE 90 DEGREE
1068	CQ 0010234H1	-	MANIFOLD, JUNCTION
1069	AD 001078606	-	WTHRHD, C5315X6 STR FITTING
1070	AX 000770306	-	BULKHEAD, -8 JIC
1071	CQ 00077048N	-	NUT, -8 BULKHEAD
1072	MN 0344610	-	NUT, M16 FLANGE, NON SERRATED
1073	MS 0554630	-	SCREW, SOC SET M16 X 2.0 X 80

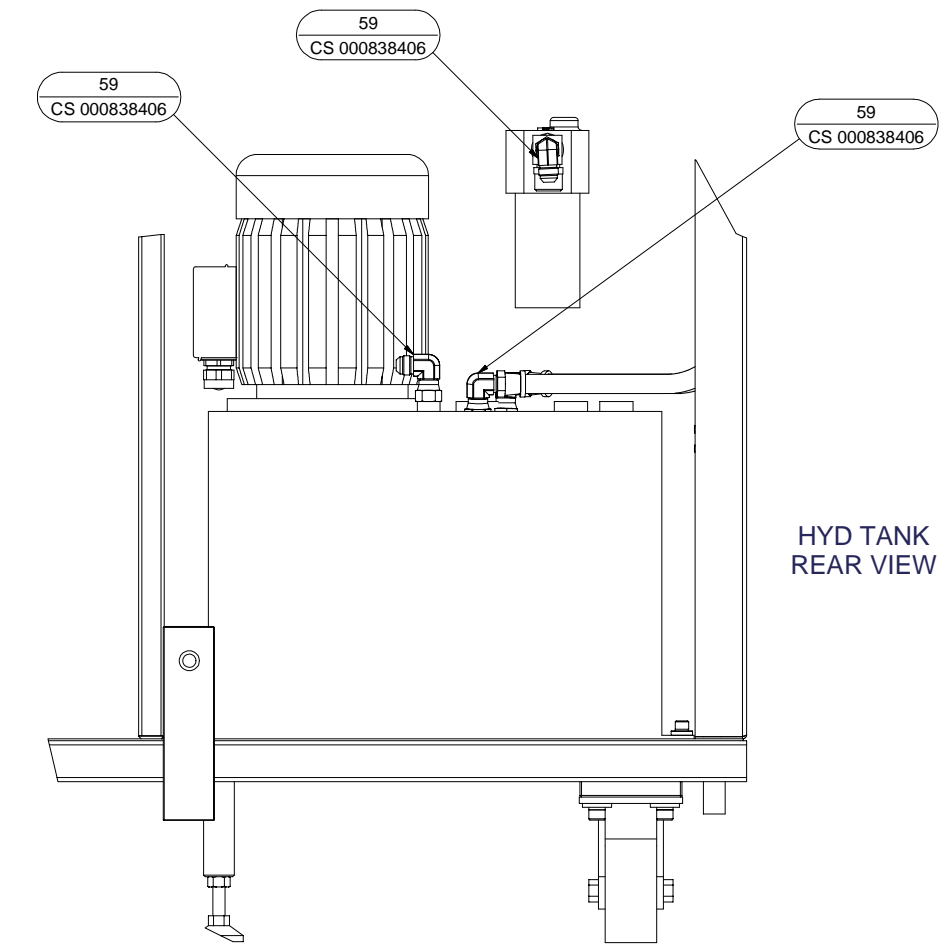
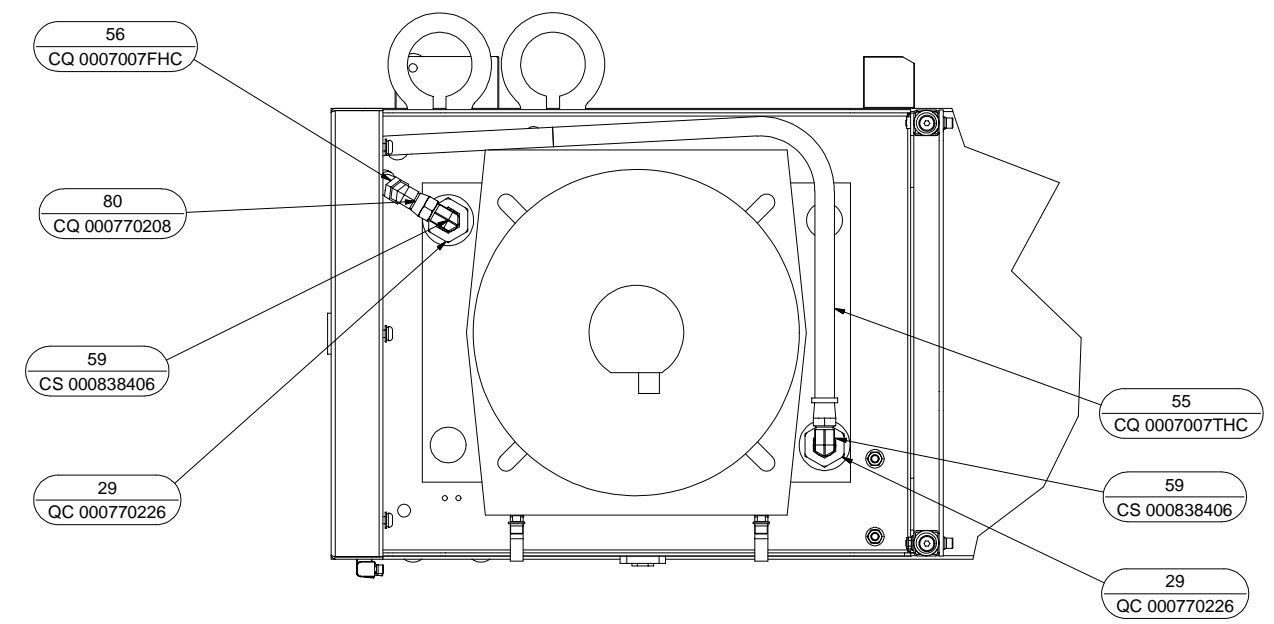
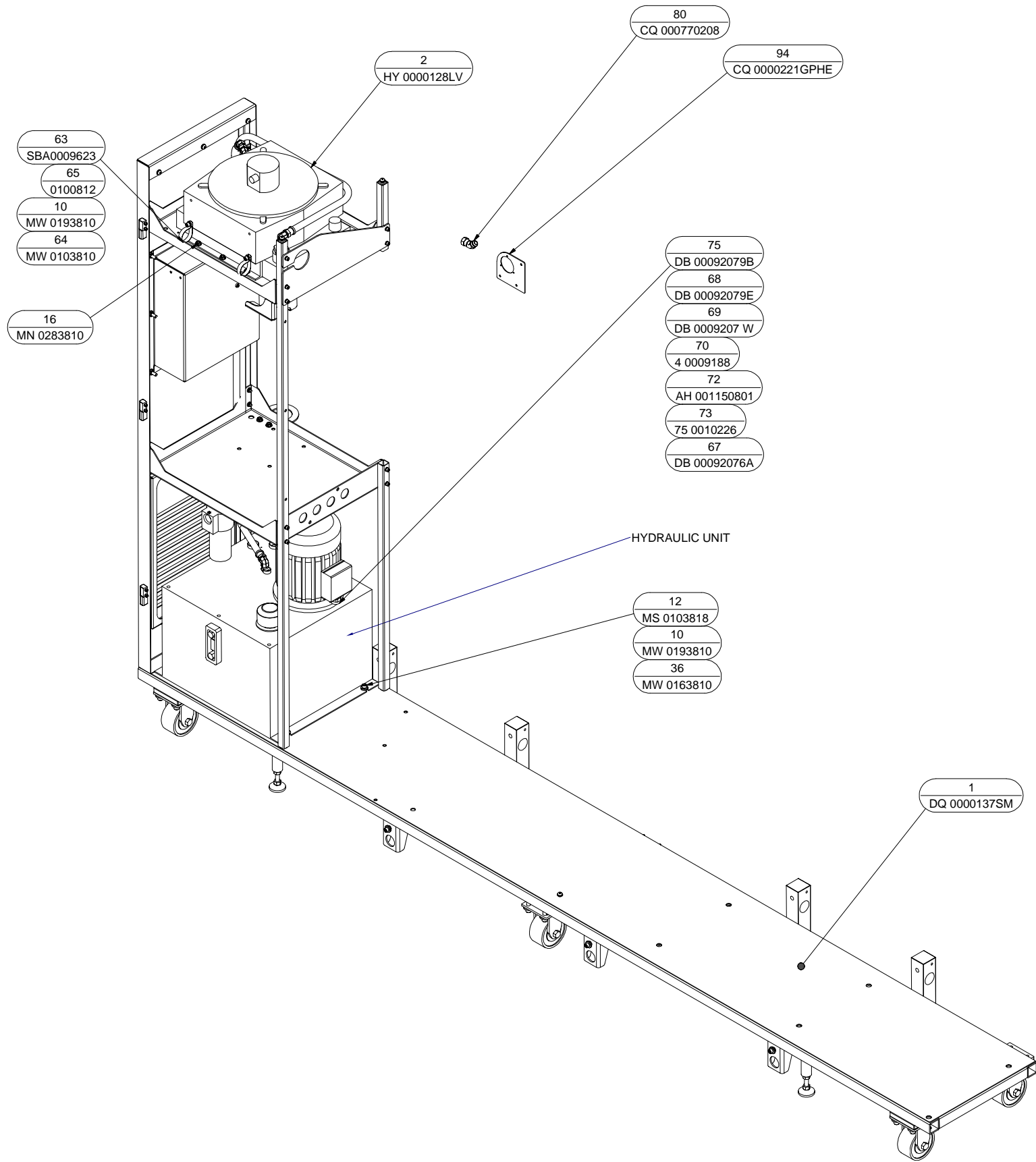


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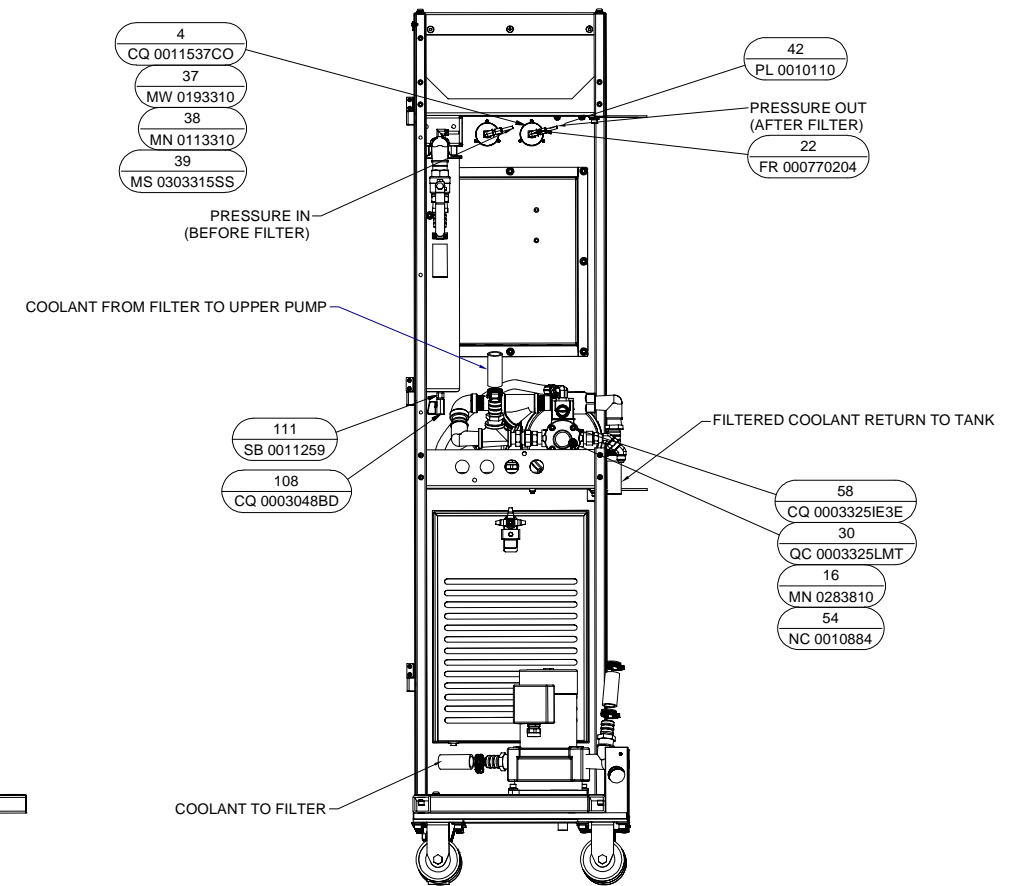
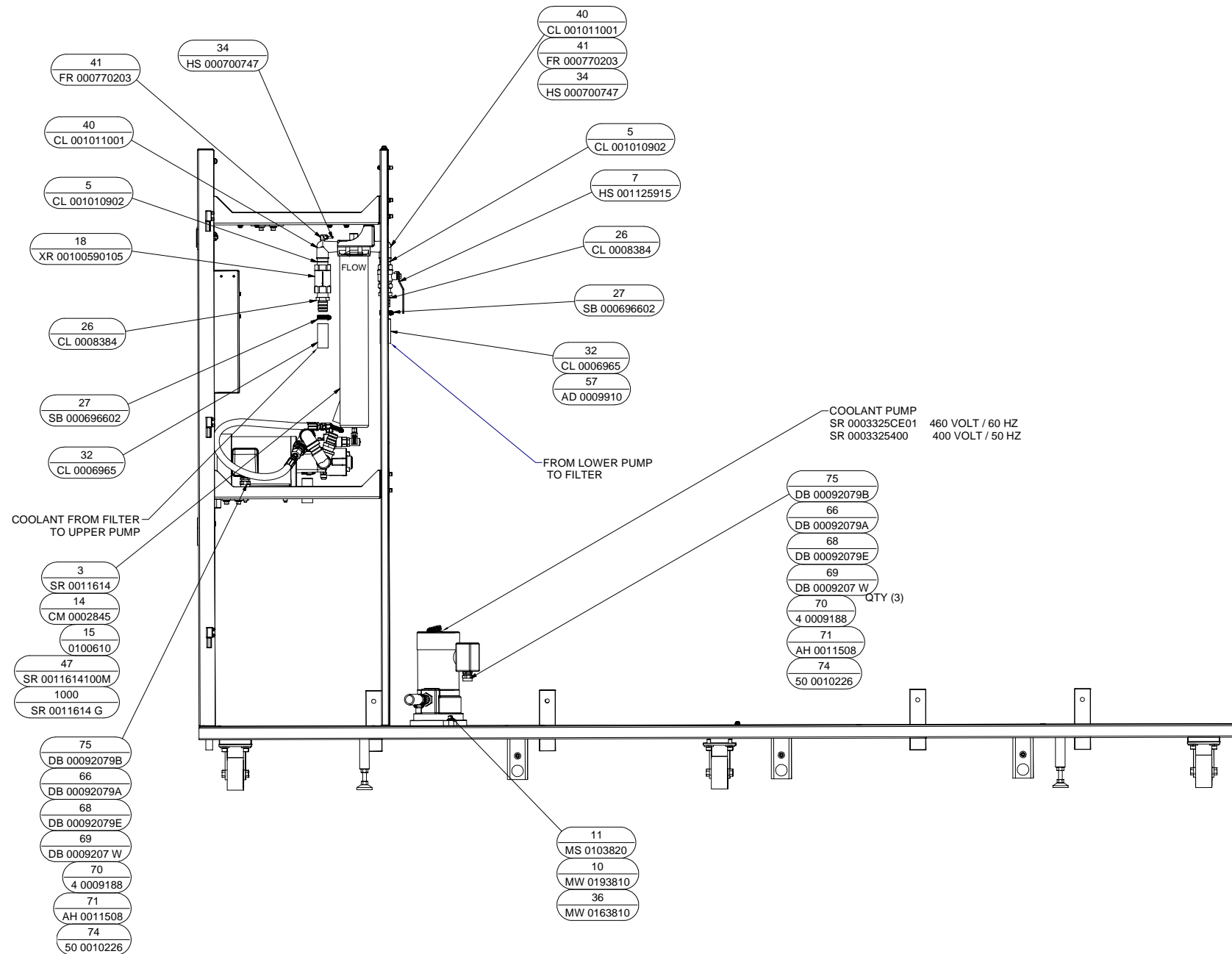
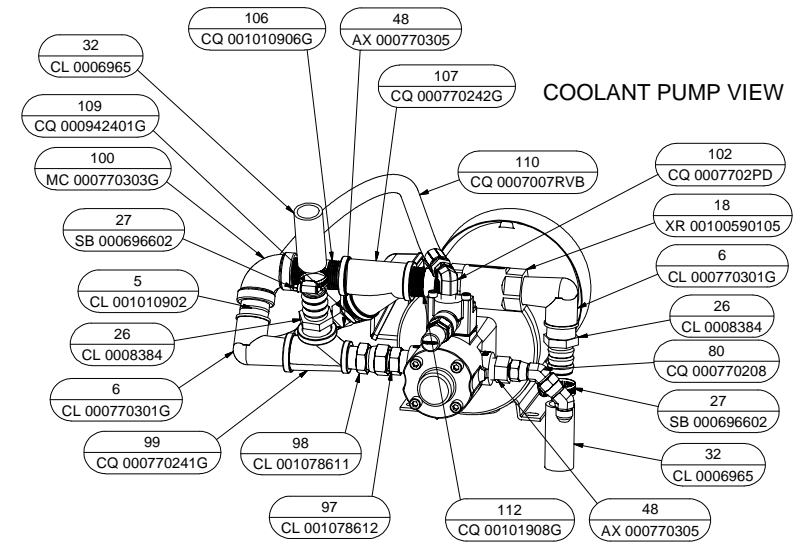
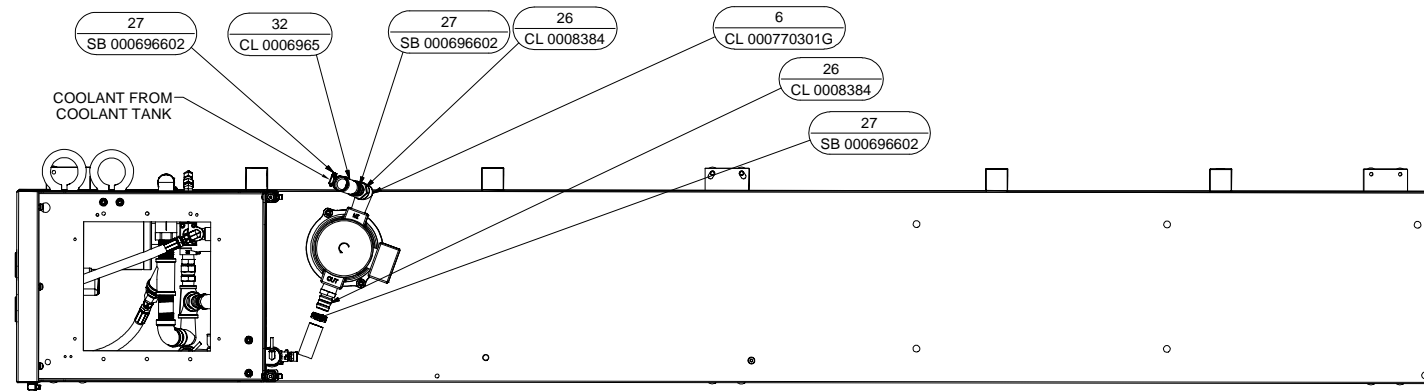


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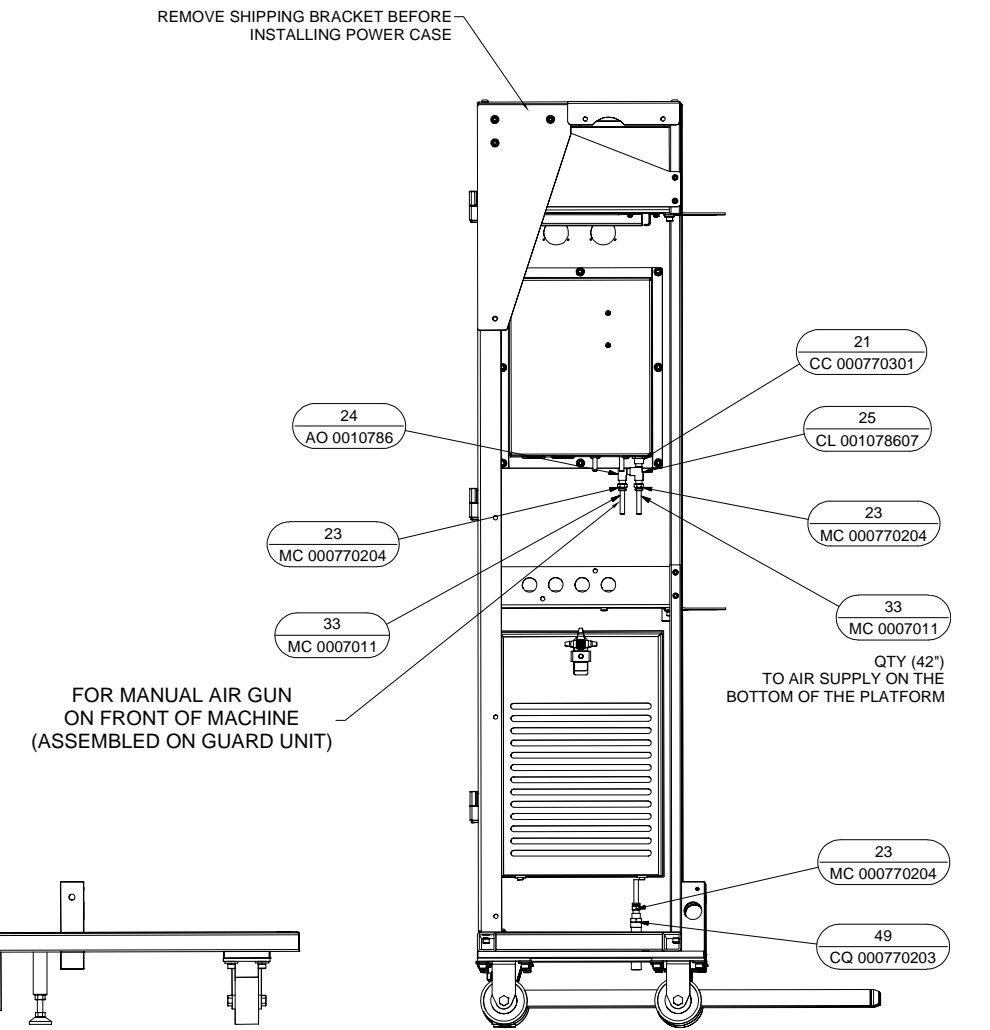
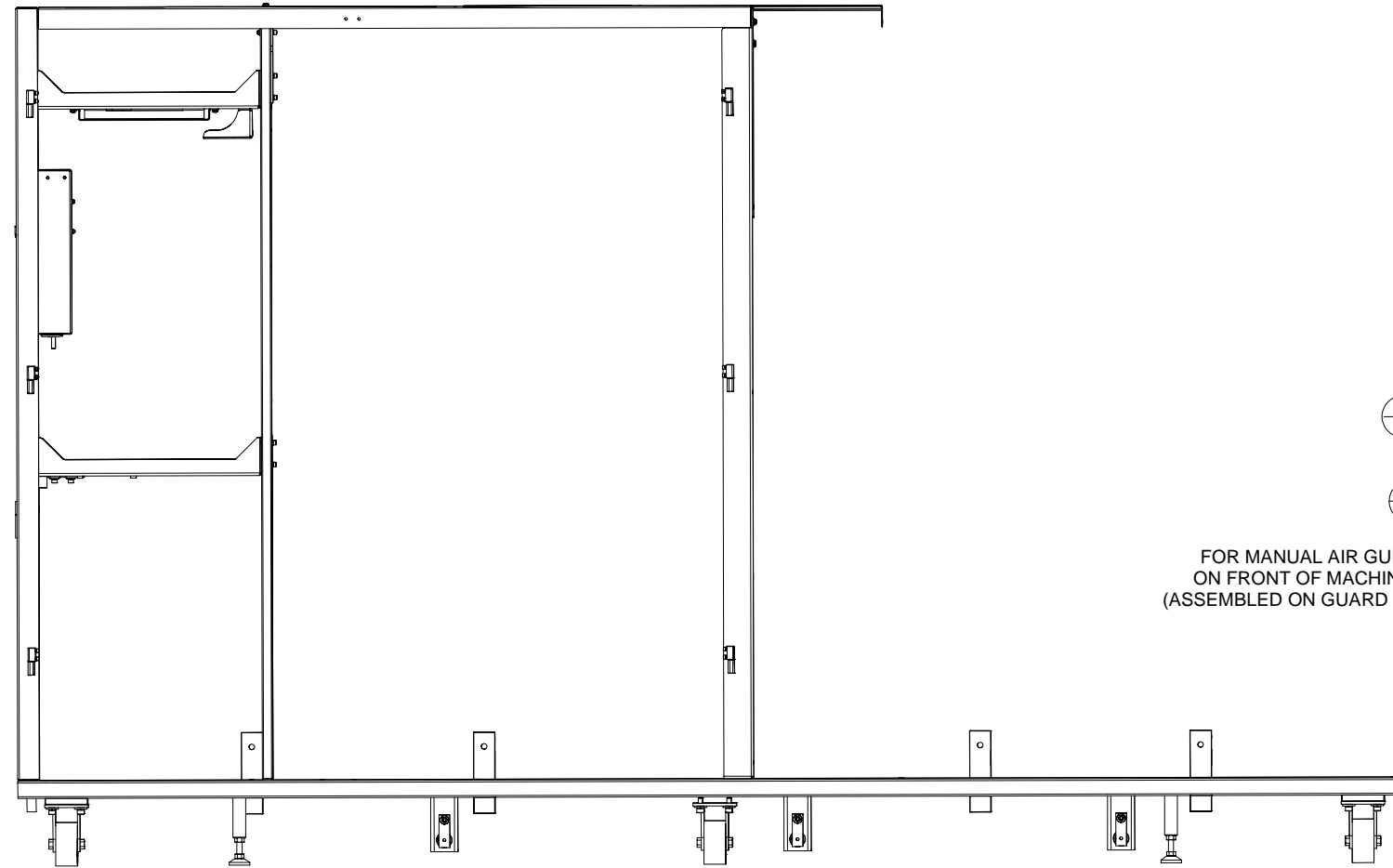
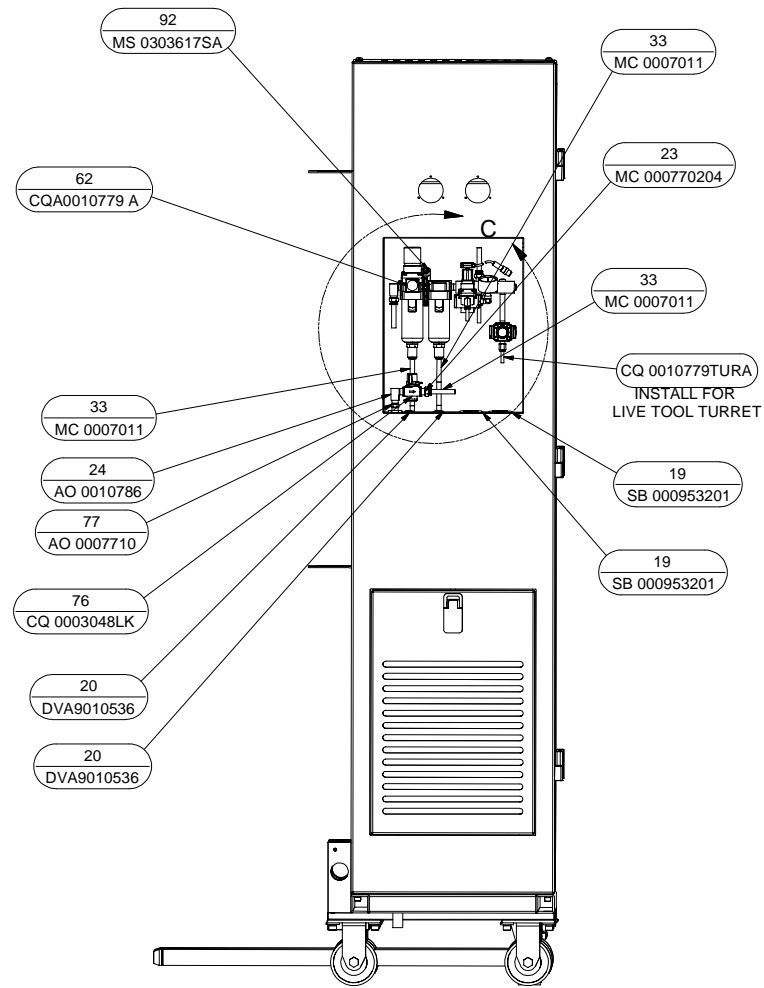
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQA0011623 Z	1	CABLE CARRIER	51	MS 0103518	4	SCREW, SHC, M5X0.8X20MM
2	CQ 0011623 X	1	CABLE CARRIER	52	MW 0193510	4	WASHER, LOCK, M5
3	CQ 000891502	1	WORKLIGHT, LED 10 DEGREE SPOT	54	CQ 0003315LS	1	SWITCH, LEVEL SENSOR
4	CQ 000891501	1	WORKLIGHT, LED FLOOD	55	DQ 00120423MR	1	RECEPTACLE, 3 PIN MALE, 22AWG
5	MS 0303616SA	29	SCREW ASSEMBLY, 6MX1X12MM	56	RAA000918821	2	BUTT SPLICE
6	MS 0303515SA	29	SCREW ASSEMBLY, BH M5X.8X10	57	CH 000962302	4	CABLE CLAMP, 5/16
7	MN 0283510	13	NUT, SERRATED HEX FLANGE, M5X0.8	58	MS 0103314	4	SCREW, SHC, M3X0.5X8MM
8	MS 0103820	8	SCREW, SHC, M8X1.25X30MM	59	SB 001056504	2.75"	U CHANNEL
9	MW 0193810	15	WASHER, LOCK, M8	60	MW 0193310	4	WASHER, LOCK, M3
10	MS 0303817SA	8	SCREW ASSEMBLY, BHC M8X16MM	61	MS 0103818	2	SCREW, SHC, M8X1.25X20MM
11	MS 0104019	4	SCREW, SHC, M10X1.5X25MM	62	DQA0008050HW1	1	WIPER, HEADWALL
12	MW 0194010	4	WASHER, LOCK, M10	63	DQA0008050HW2	1	WIPER, HEADWALL
13	MW 0104010 H	4	WASHER, FLAT, HARD, M10	64	DQ 0008050HW3B	1	WIPER, HEADWALL
15	5 0001893	8	WASHER	65	QC 000962302	6	CLAMP CABLE - 1-1/2"
16	CQ 0010509LC	2	CLAMP, LATCH-ACTION TOGGLE	66	DQ 0001990MCP	1	CABLE BRACKET
17	CQ 0010509LP	2	LATCH PLATE, CLAMP	67	DC 0010884PC	0.1	SILICONE
22	MN 0283610	13	NUT, SERRATED HEX FLANGE, M6X1	68	GG 0010116SL	1	GASKET, STACK LIGHT
23	CQA0011555HAB	1	CHILLER, SPINDLE	69	MS 0103516	3	"SCREW, SHC, M5X0.8X12MM
24	CS 000838406	2	ELBOW, 90 DEGREE -8 SWIVEL	1000	DQ 0000221DFH1	-	FLANGE, HEADWALL WIPER LOWER
25	DQ 0007007MSC1	2	HOSE, 1/2 ID MAIN CHILLER	1001	DQ 0000221DFH2	-	FLANGE, HEADWALL WIPER UPPER
26	MC 0010994	0.2	GREASE, SILICONE	1002	DQ 0001990HWR1	-	RETAINER, HEADWALL WIPER
27	NC 0010884	0.1	THREADLOCKER, LOCTITE 242	1003	DQ 0000221DFHS	-	DEFLECTOR, HEADWALL WIPER
28	NC 001088402	0.08	THREADLOCKER, LOCTITE 222	1004	DQ 0001990HWR2	-	RETAINER, HEADWALL WIPER
29	ML 0010884	0.3	ADHESIVE	1005	DQ 0001990HWR3	-	RETAINER, HEADWALL WIPER
30	CS 0010994	0.2	GREASE	1006	DQ 0000221HWF	-	FLANGE, HEADWALL
31	SB 0010884 S	0.3	SEALANT, HYDRAULIC	1007	DQ 0000221VIBB	-	COOLING FAN ASSEMBLY
32	MS 0124219	4	SCREW, SHC, M6X1X16MM	1008	DQ 000331521R	-	STOP, TANK
33	QC 0009207	1	CORD GRIP, .12-.28, 1/2NPT	1009	CQ 0003315SCS	-	COVER, DEFLECTOR
34	50 0010226	1	GASKET ASSEMBLY, 1/2 INCH	1010	CQ 0003315SC	-	COVER, DEFLECTOR
35	CQ 00102253412	4	WASHER, GROMMET	1011	DQ 0003315VA	-	DEFLECTOR ASSEMBLY, CONVEYOR
36	AH 0011508	1	NUT, LOCK	1012	DQ 0003315V1A	-	DEFLECTOR ASSEMBLY
37	VT 00120450200	1	STACK LIGHT, 3 COLOR + BUZZER	1013	DQ 0010115WL	-	WAYCOVER, LEFT Z-AXIS
38	ML 0000221KNSM	1	SHIM, CONTROL HOUSING BOTTOM	1014	CQ 0000221SKBK	-	BRACKET, LOWER LEFT COVER
39	MS 0313419	4	SCREW, FHC, M4 X 0.7 X 25MM	1015	DQ 000331521RL	-	BRACKET, LATCH-TANK
40	MS 0303516SA	11	SCREW ASSEMBLY, BH M5X.8X12	1016	EQ 0000221CO65	-	COOLANT CATCHER, T-65
41	5 0001895	4	WASHER	1017	DQ 0000221CO51	-	COOLANT CATCHER, T-51
42	MS 0103819	9	SCREW, SHC, M8X1.25X25MM	1018	DQ 0000221SSWT	-	WIRE TRAY, MACHINE WITH TAILSTOCK OR SUB-SPINDLE
43	MS 0103617	2	SCREW, SHC, M6X1X16MM	1019	DQ 0000221LLWT	-	WIRE TRAY, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE
44	CL 0009938	72"	SLEEVE, HIGH TEMP 1/4" I.D.	1020	DQ 0000221JCAP	-	BRACKET, CABLE
45	NC 001047302	2"	HEATSHRINK 3/8"	1021	DQ 0000221LWLF	-	COVER, LOWER LEFT
46	NC 001047301	2"	HEATSHRINK 1/2"				
47	XR 0008388	2	ADAPTER, 8-16 STRAIGHT MALE				
48	MS 0303617SA	5	SCREW ASSEMBLY, M6X1X16MM				
50	MW 0163810	7	WASHER, M8 THICK DIN7349/BN73				



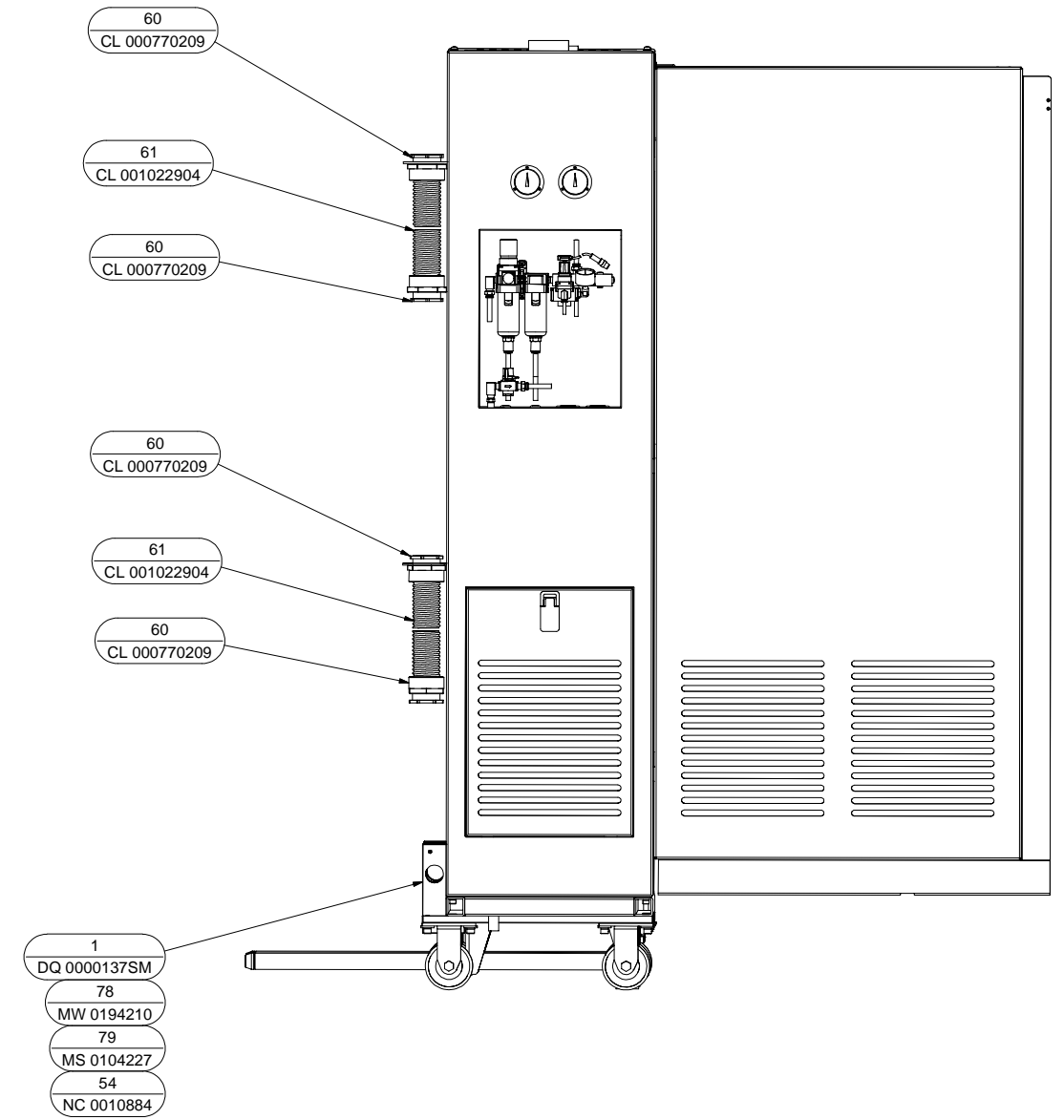
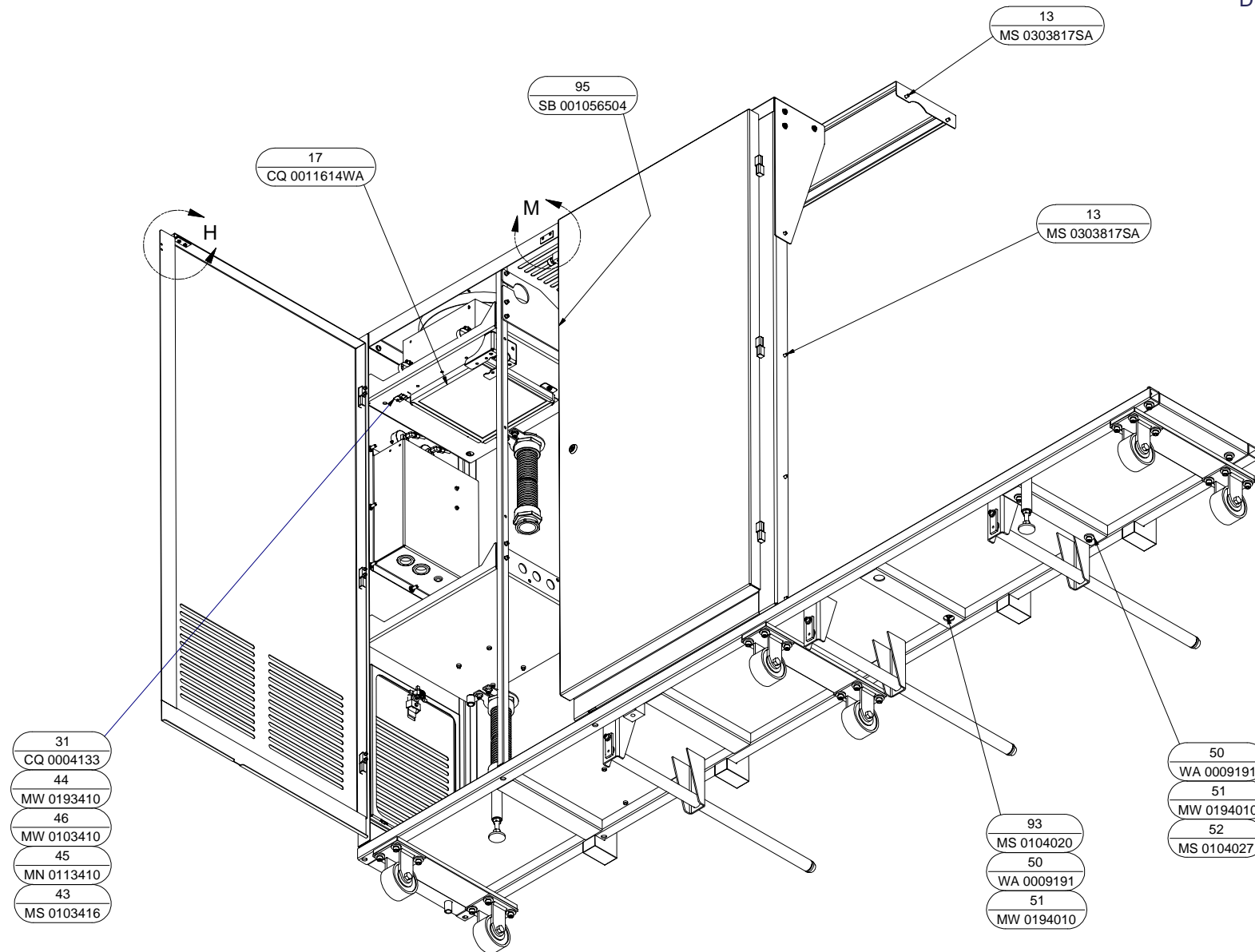
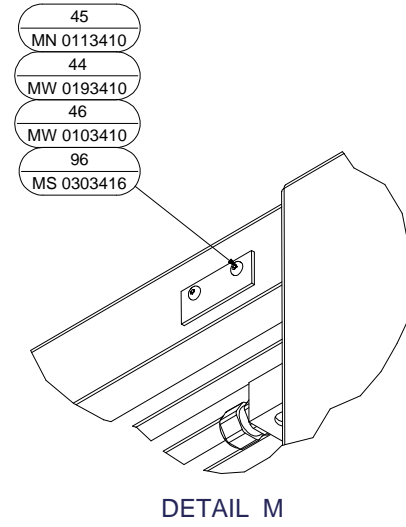
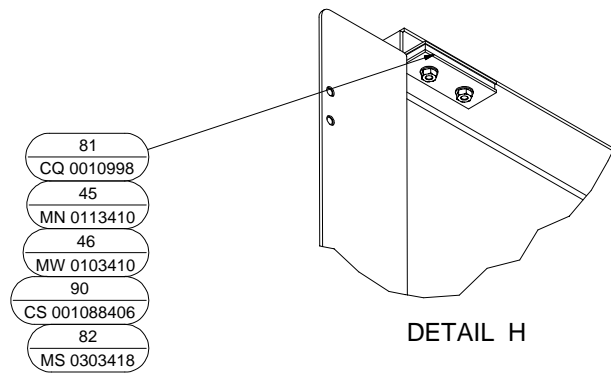
POWER CASE PLATFORM ASSEMBLY  
DQA0000137



POWER CASE PLATFORM ASSEMBLY  
DQA0000137

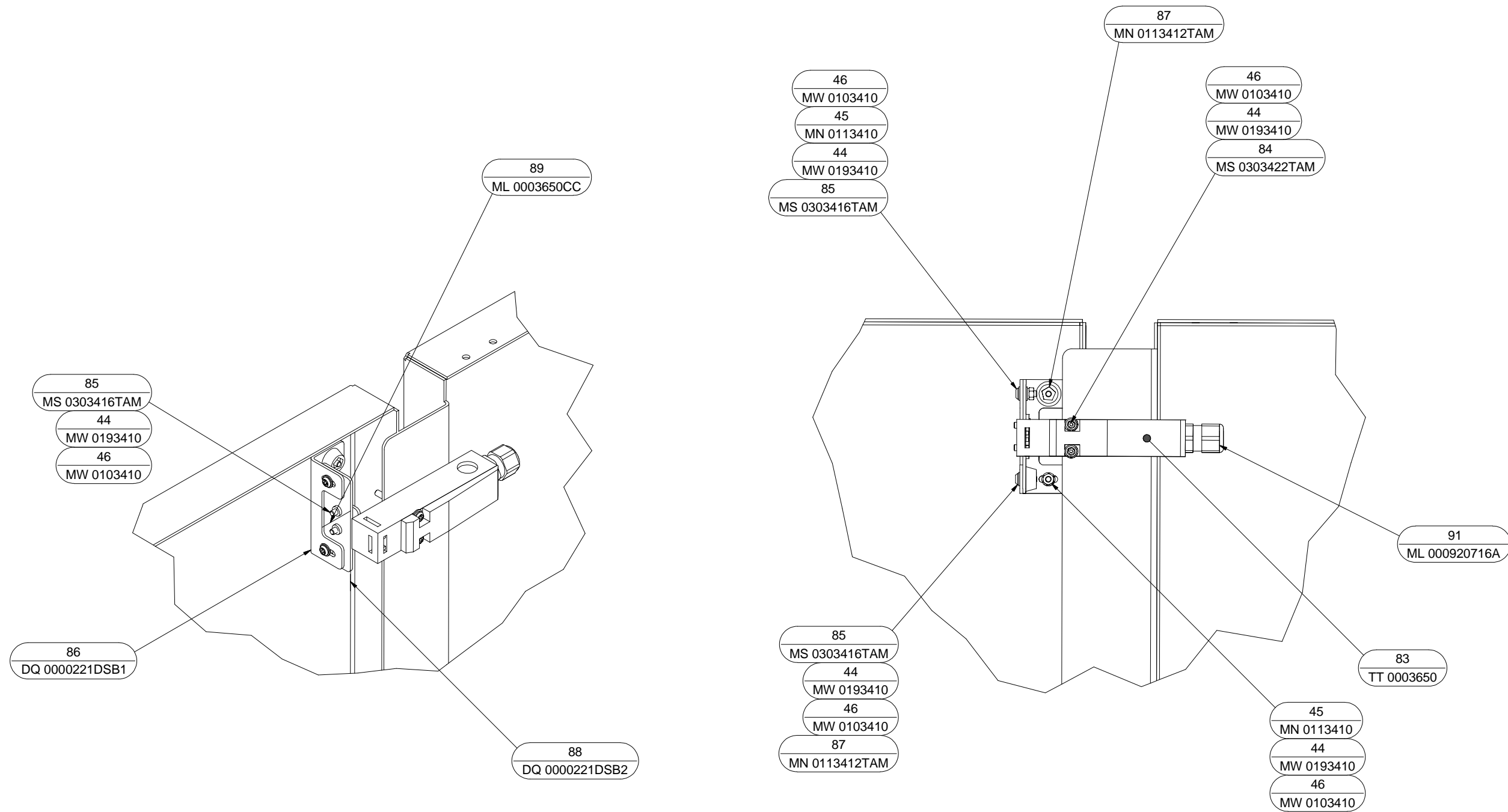


POWER CASE PLATFORM ASSEMBLY  
DQA0000137



POWER CASE PLATFORM ASSEMBLY  
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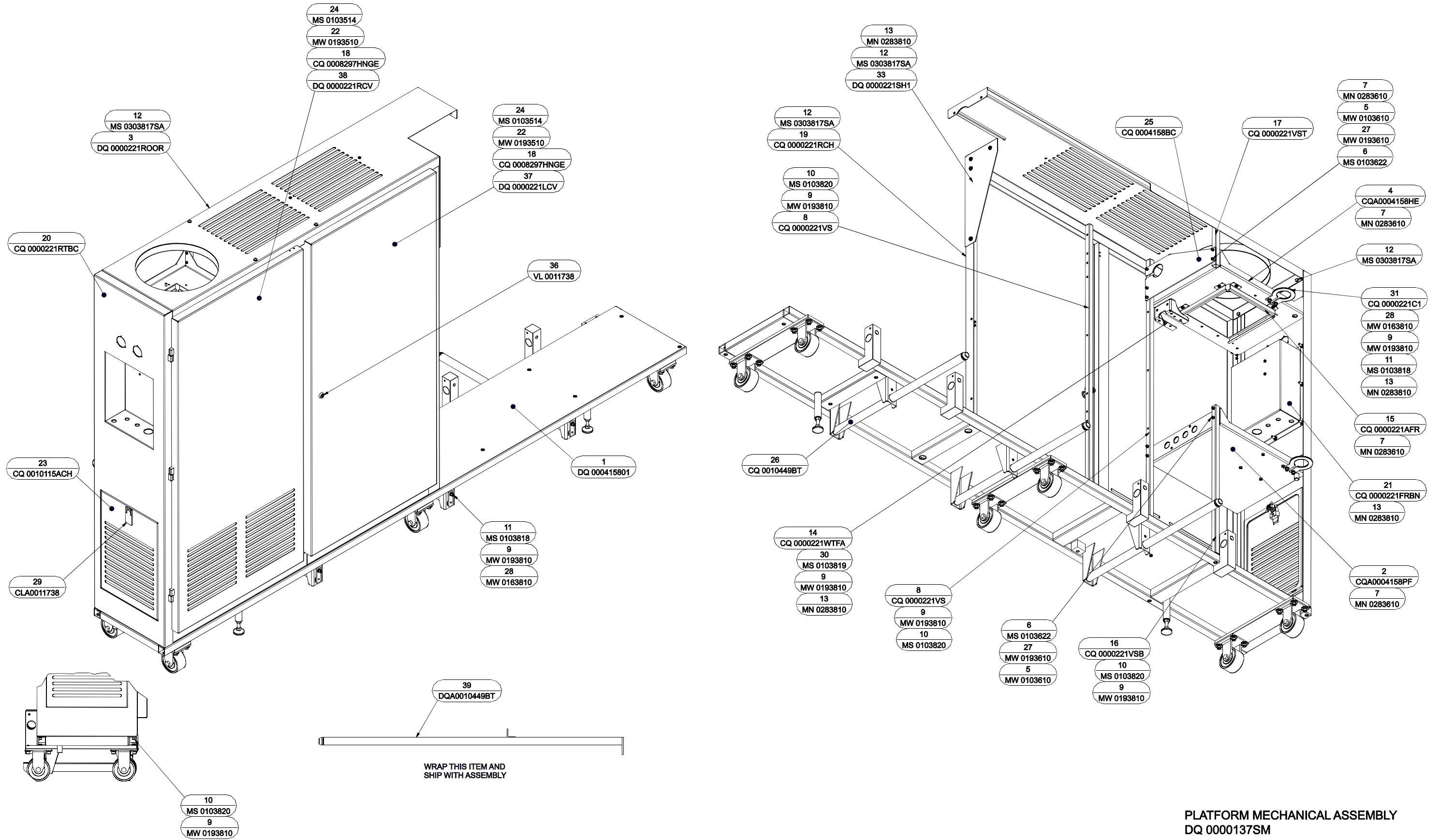




DOOR SWITCH ASSEMBLY

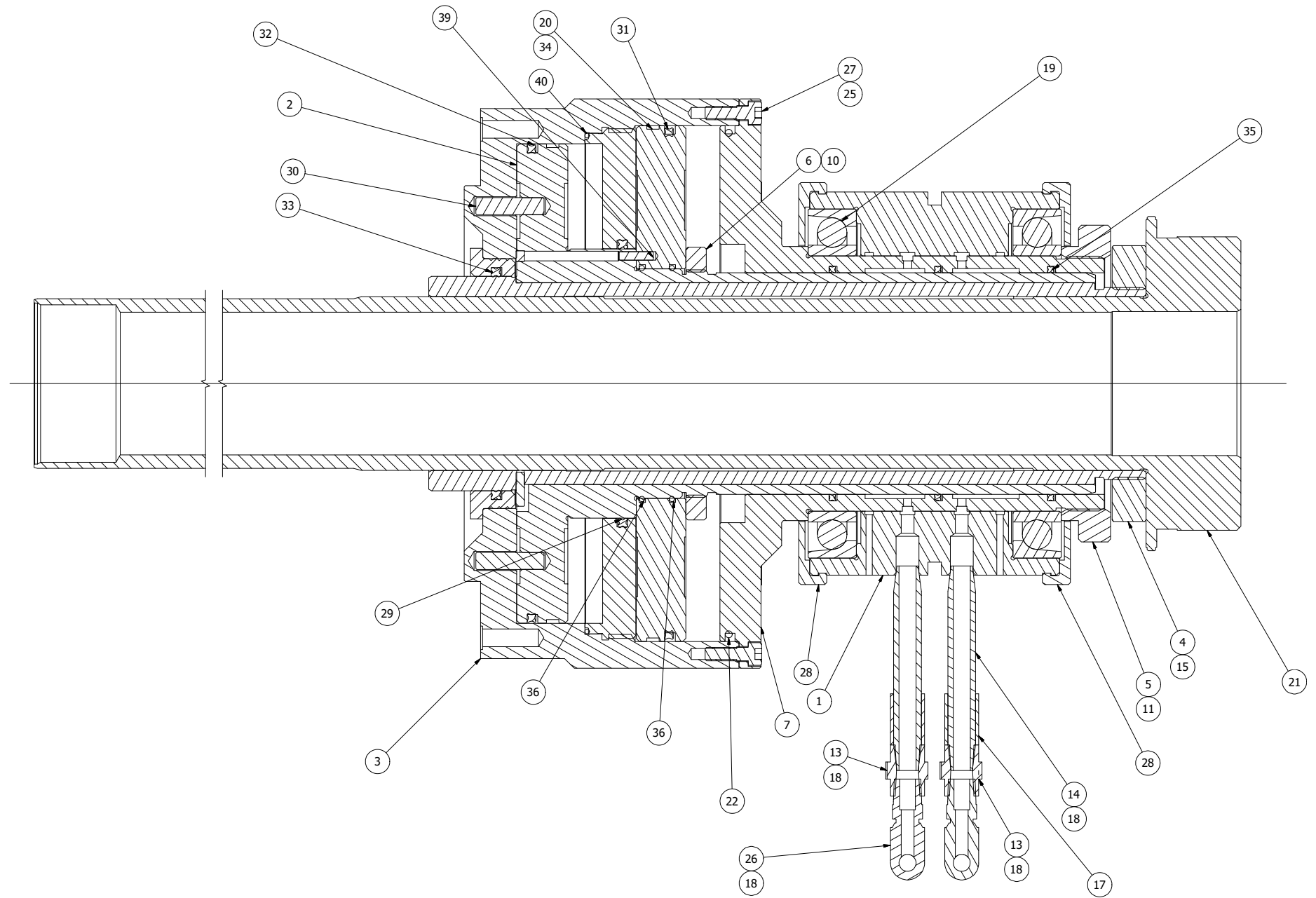
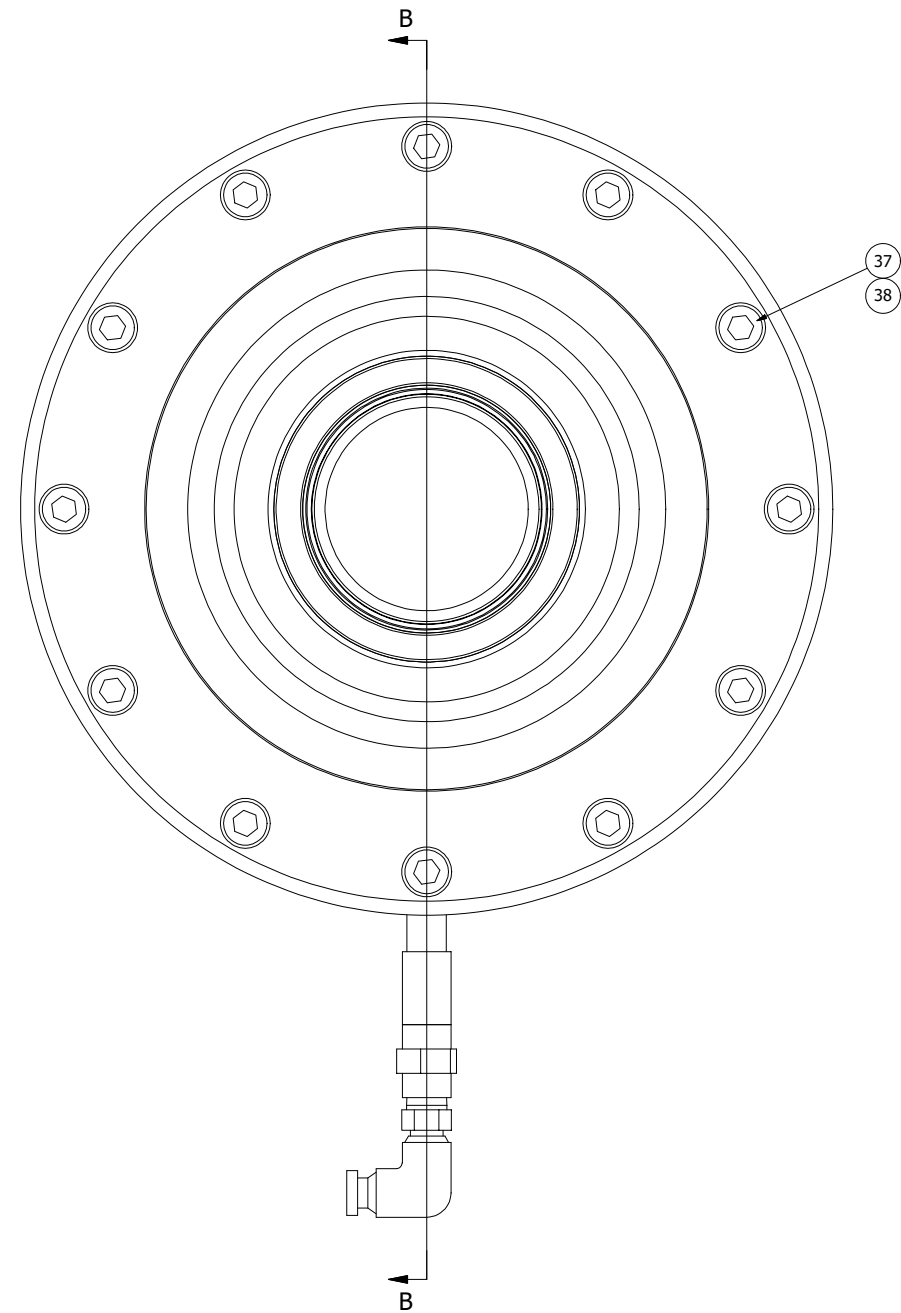
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0000137SM	1	POWER CASE PLATFORM ASSEMBLY	49	CQ 000770203	1	COUPLING, 1/2" NPT X 1/4" NPT
2	HY 0000128LV	1	HEAT EXCHANGER	50	WA 0009191	6	WASHER
3	SR 0011614	1	FILTER HOUSING, CARTRIDGE	51	MW 0194010	6	WASHER, LOCK, M10
4	CQ 0011537CO	2	GAUGE, 0-30 PSI	52	MS 0104027	4	SCREW, SHC, M10X1.5X65MM
5	CL 001010902	3	NIPPLE, 1" NPT CLOSE	53	SB 0010884 S	1.0 cc	SEALANT, HYDRAULIC
6	CL 000770301G	3	ELBOW, 1" NPT STREET	54	NC 0010884	1.0 cc	THREAD LOCKER
7	HS 001125915	1	BALL VALVE, 1" NPT	55	CQ 0007007THC	1	HOSE, 1/2 ID TO HYD COOLER
10	MW 0193810	8	WASHER, LOCK, M8	56	CQ 0007007FHC	1	HOSE, 1/2 ID FROM HYD COOLER
11	MS 0103820	2	SCREW, SHC, M8X1.25X30MM	57	AD 0009910	13	CABLE TIE
12	MS 0103818	4	SCREW, SHC, M8X1.25X20MM	58	CQ 0003325IE3E	1	COOLANT PUMP
13	MS 0303817SA	6	SCREW ASSEMBLY, BHC M8X16MM	59	CS 000838406	6	ELBOW, 90 DEGREE -8 SWIVEL
14	CM 0002845	4	WASHER, 1/4" LOCK	60	CL 000770209	4	FITTING, ST. 2" NONMETALLIC
15	0100610	4	SCREW, SHC SCREW 1/4-20X 5/8	61	CL 001022904	72"	CONDUIT, 2" BLACK
16	MN 0283810	10	NUT, SERRATED HEX FLANGE, M8X1.25	62	CQA0010779 A	1	FILTER REGULATOR ASSEMBLY, MAIN AIR
17	CQ 0011614WA	1	FILTER, 12 X 12 X 1 AIR	63	SBA0009623	2	CLAMP CABLE
18	XR 00100590105	2	1" BALL CONE CHECK VALVE	64	MW 0103810	2	WASHER, FLAT, M8
19	SB 000953201	2	GROMMET	65	0100812	2	SCREW, SHC, 5/16-18x3/4
20	DVA9010536	2	GROMMET	66	DB 00092079A	2	BODY, CONNECTOR
21	CC 000770301	1	BULKHEAD, 1/4 NPT	67	DB 00092076A	1	BODY, CORD GRIP, F2, 3/4
22	FR 000770204	2	CONNECTOR, STRAIGHT MALE	68	DB 00092079E	3	GROMMET
23	MC 000770204	4	CONNECTOR, STRAIGHT 1/4NPT-3/8 TUBE	69	DB 0009207 W	3	WASHER, CONNECTOR
24	AO 0010786	2	ELBOW, STREET	70	4 0009188	9	JOINT, WIRE
25	CL 001078607	1	TEE, 1/4" NPT STREET	71	AH 0011508	2	NUT, LOCK
26	CL 0008384	6	HOSE BARB, 1" NPT X 1" HOSE	72	AH 001150801	1	LOCKNUT, .75 INCH
27	SB 000696602	7	CLAMP, HOSE 13/16 TO 1-1/2	73	75 0010226	1	SEAL, .75 INCH
29	QC 000770226	2	ADAPTER, SAE-16 TO JIC-8 MALE	74	50 0010226	2	GASKET ASSEMBLY, 1/2 INCH
30	QC 0003325LMT	4	MOUNT, COOLANT PUMP ISOLATOR	75	DB 00092079B	3	NUT, COMPRESSION, F2
31	CQ 0004133	1	LATCH, SNAP DOWN ARM	76	CQ 0003048LK	1	VALVE, LOCK OUT
32	CL 0006965	229"	HOSE, 1" COOLANT	77	AO 0007710	1	NIPPLE, 1/4" NPT HEX
33	MC 0007011	105"	TUBING, 3/8 OD	78	MW 0194210	2	WASHER, LOCK, M12
34	HS 000700747	102"	TUBING, 1/4 OD	79	MS 0104227	2	SCREW, SHC, M12X1.75X65MM
36	MW 0163810	6	WASHER, M8 HEAVY	80	CQ 000770208	4	ELBOW, 45 DEGREE -8 SWIVEL
37	MW 0193310	6	WASHER, LOCK, M3	81	CQ 0010998	1	MAGNET, DOOR
38	MN 0113310	6	NUT, HEX M3X0.5	82	MS 0303418	2	SCREW, BTHD M4X0.7X20MM
39	MS 0303315SS	6	SCREW, B HD. M3X.5X10MM SS	83	TT 0003650	1	SWITCH, SAFETY
40	CL 001011001	2	ELBOW, 1" NPT COOLANT WITH DRAIN	84	MS 0303422TAM	2	SCREW, M4 x 40 TAMPER PROOF
41	FR 000770203	2	CONNECTOR, 90 DEGREE	85	MS 0303416TAM	4	SCREW, M4 x 12 TAMPER PROOF
42	PL 0010110	2	ELBOW, 90 DEGREE FEMALE	86	DQ 0000221DSB1	1	BRACKET, DOOR SWITCH
43	MS 0103416	2	SCREW, SHC, M4X0.7X12MM	87	MN 0113412TAM	2	NUT, M4 TAMPER PROOF
44	MW 0193410	12	WASHER, LOCK, M4	88	DQ 0000221DSB2	1	BRACKET, DOOR SWITCH
45	MN 0113410	8	NUT, HEX, M4X0.7	89	ML 0003650CC	1	KEY, STRAIGHT
46	MW 0103410	16	WASHER, FLAT, M4	90	CS 001088406	.02 cc	THREAD LOCKER, WICKING
47	SR 0011614100M	1	ELEMENT, 100 MICRON CLEANABLE	91	ML 000920716A	1	CORD GRIP, 16MM
48	AX 000770305	2	ADAPTER, 3/4 NPT -8 JIC	92	MS 0303617SA	2	SCREW ASSEMBLY, M6X1X16MM

ITEM	PART NUMBER	QTY	DESCRIPTION
93	MS 0104020	2	SCREW, SHC, M10X1.5X30MM
94	CQ 0000221GPHE	1	COVER, GAUGE
95	SB 001056504	66"	U-CHANNEL
96	MS 0303416	2	SCREW, BTHD M4X0.7X12MM
97	CL 001078612	1	FITTING 3/4 NPTM-3/4 JIC
98	CL 001078611	1	CONN, 3/4 NPT X -12 JIC SWIVEL
99	CQ 000770241G	1	TEE, 1 X1 X 3/4 FEMALE NPT
100	MC 000770303G	1	ELBOW, 1" NPT 90 DEG FEMALE
102	CQ 0007702PD	1	ELBOW, 3/8 BSPT X -8 JIC 90 DEGREE
106	CQ 001010906G	1	NIPPLE, 1 NPT, 3" LONG, GAVANIZED
107	CQ 000770242G	1	WYE FITTING, 1 NPT, 45 DEGREE, GALVANIZED
108	CQ 0003048BD	1	1/8 BALL VALVE
109	CQ 000942401G	1	BUSHING, 3/4 NPT X 1 NPT
110	CQ 0007007RVB	1	HOSE, PUMP BYPASS
111	SB 0011259	1	ADAPTER, 1/8FM TO 1/8MALE NPT
112	CQ 00101908G	1	PIPE NIPPLE, 1" X 2.5" SCH 40 GALVANIZED
1000	SR 0011614 G	1	GASKET, FILTER HOUSING



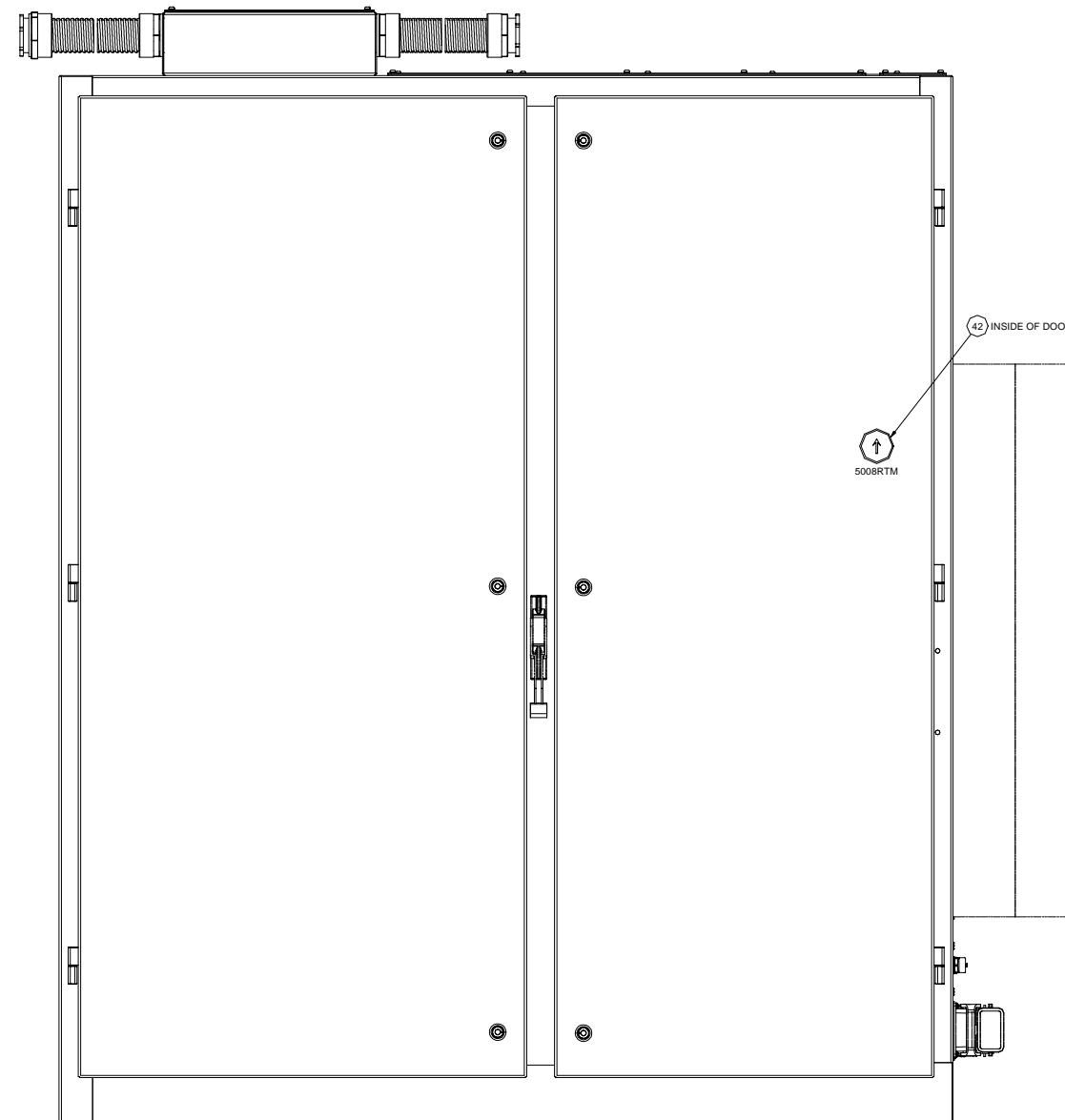
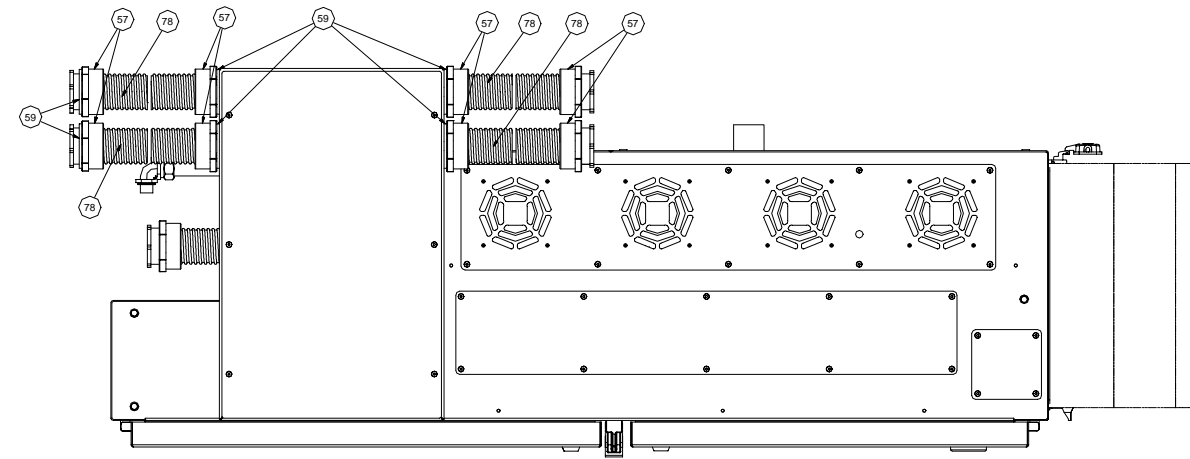
PLATFORM MECHANICAL ASSEMBLY  
DQ 0000137SM

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 000415801	1	PLATFORM, POWER CASE
2	CQA0004158PF	1	SHELF, PUMP
3	DQ 0000221ROOR	1	PANEL, ROOF
4	CQA0004158HE	1	SHELF, HEAT EXCHANGER
5	MW 0103610	9	WASHER, FLAT, M6
6	MS 0103622	9	SCREW, SHC, M6X1X40MM
7	MN 0283610	15	NUT, SERRATED HEX FLANGE, M6X1
8	CQ 0000221VS	2	SUPPORT, SHELF
9	MW 0193810	14	WASHER, LOCK, M8
10	MS 0103820	5	SCREW, SHC, M8X1.25X30MM
11	MS 0103818	7	SCREW, SHC, M8X1.25X20MM
12	MS 0303817SA	11	SCREW ASSEMBLY, BHC, M8X16MM
13	MN 0283810	18	NUT, SERRATED HEX FLANGE, M8X1.25
14	CQ 0000221WTFA	1	BRACKET, COOLANT FILTER
15	CQ 0000221AFR	3	BRACKET, AIR FILTER
16	CQ 0000221VSB	1	SUPPORT, BOTTOM
17	CQ 0000221VST	1	SUPPORT, TOP
18	CQ 0008297HNGE	6	HINGE, LIFT OFF
19	CQ 0000221RCH	1	BRACKET, HINGE
20	CQ 0000221RTBC	1	COVER, BACK
21	CQ 0000221FRBN	1	BOX, AIR PANEL
22	MW 0193510	24	WASHER, LOCK, M5
23	CQ 0010115ACH	1	COVER, ACCESS
24	MS 0103514	24	SCREW, SHC, M5X0.8X8MM
25	CQ 0004158BC	1	BRACKET, SHELF
26	CQ 0010449BT	3	TUBE, SHIPPING
27	MW 0193610	9	WASHER, LOCK, M6
28	MW 0163810	7	WASHER, M8 HEAVY
29	CLA0011738	1	LATCH
30	MS 0103819	2	SCREW, SHC, M8X1.25X25MM
31	CQ 0000221C1	2	BRACKET, CONDUIT
32	NC 0010884	1	THREADLOCKER, LOCTITE 242
33	DQ 0000221SH1	1	PLATE, SHIPPING
36	VL 0011738	1	LATCH, COMPRESSION
37	DQ 0000221LCV	1	COVER, REAR
38	DQ 0000221RCV	2	COVER, REAR
39	DQA0010449BT	1	TUBE, SHIPPING



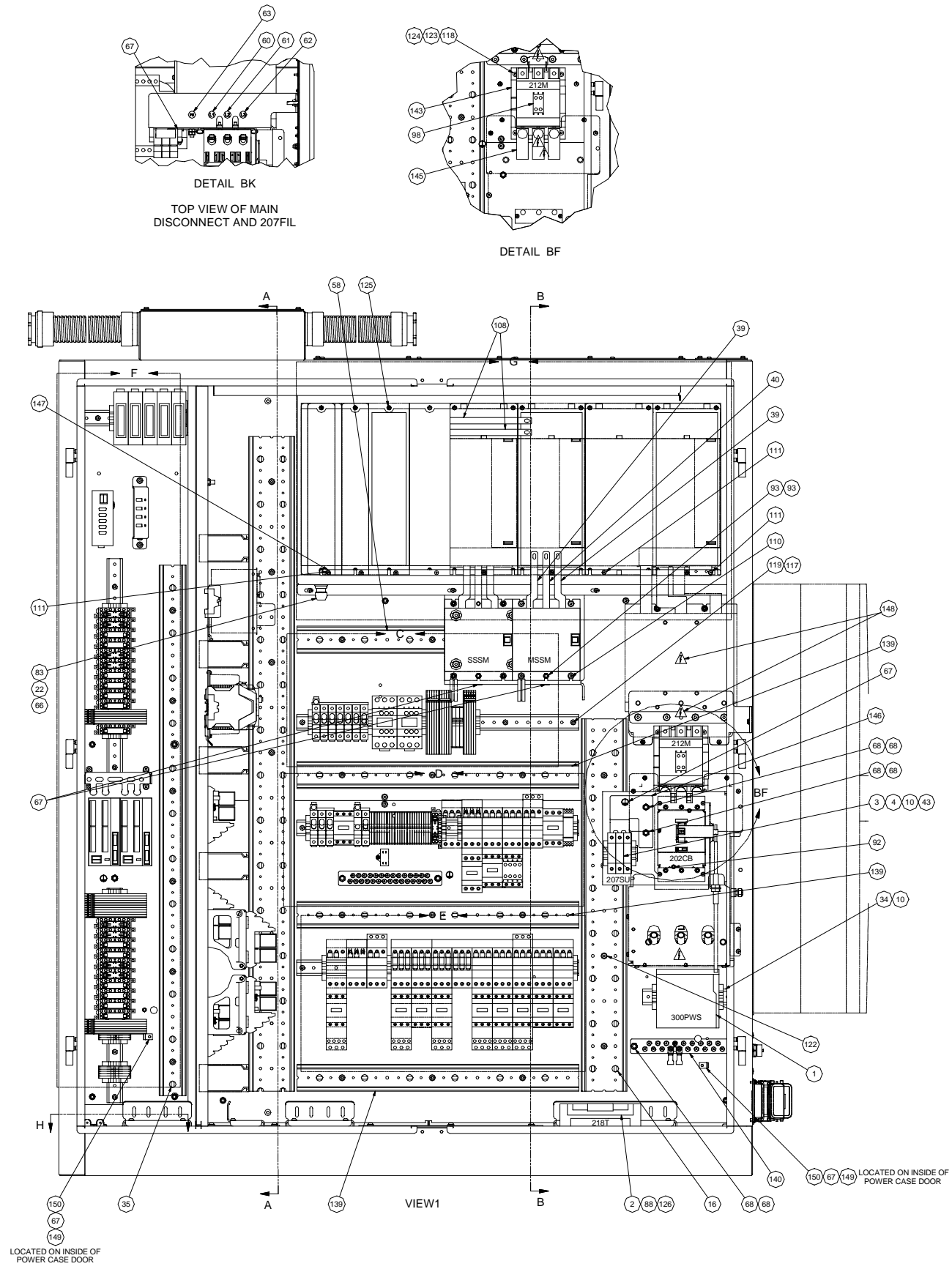
COLLET CLOSER ASSEMBLY, SUBSPINDLE  
DQB000006SS

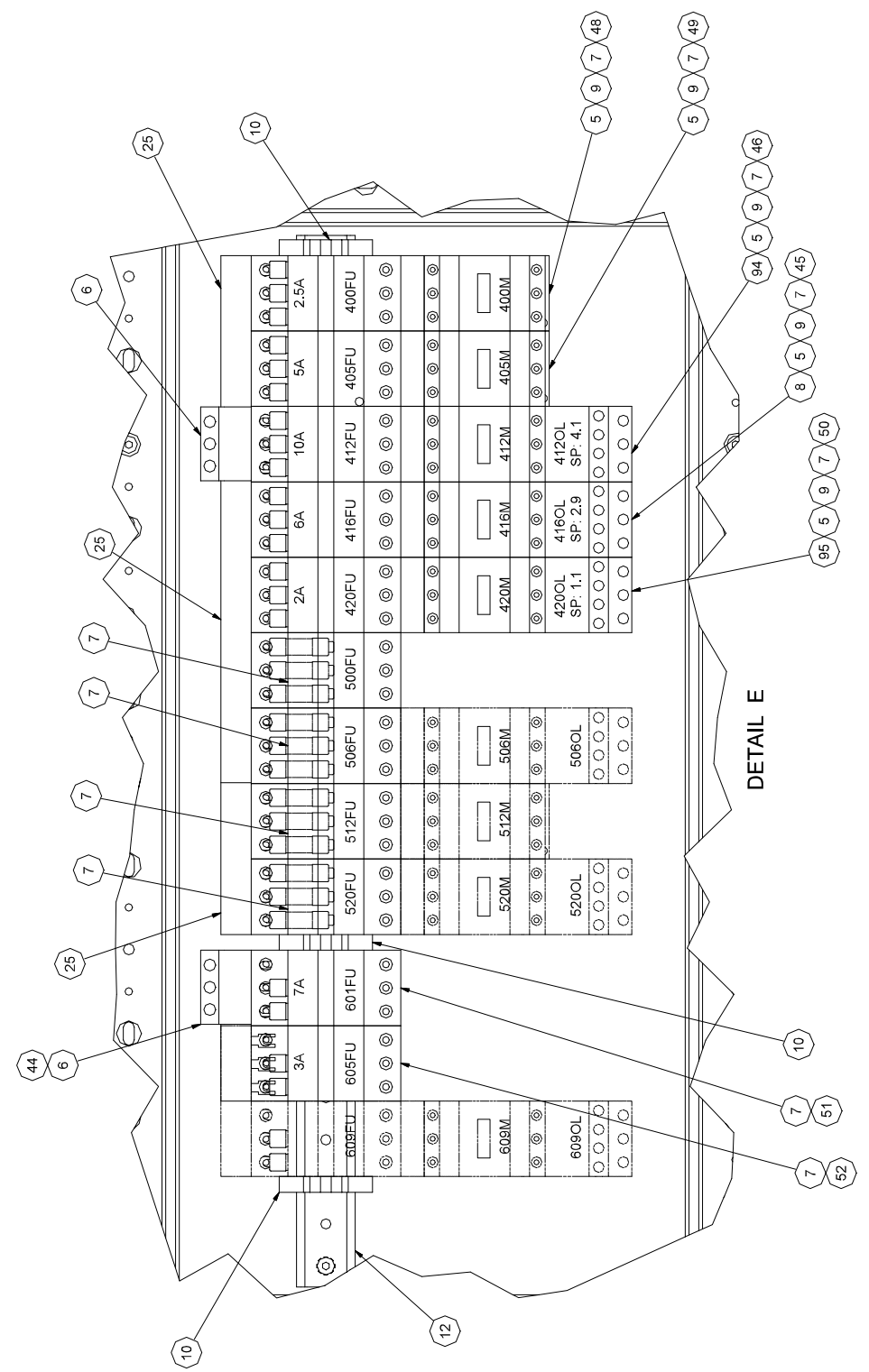
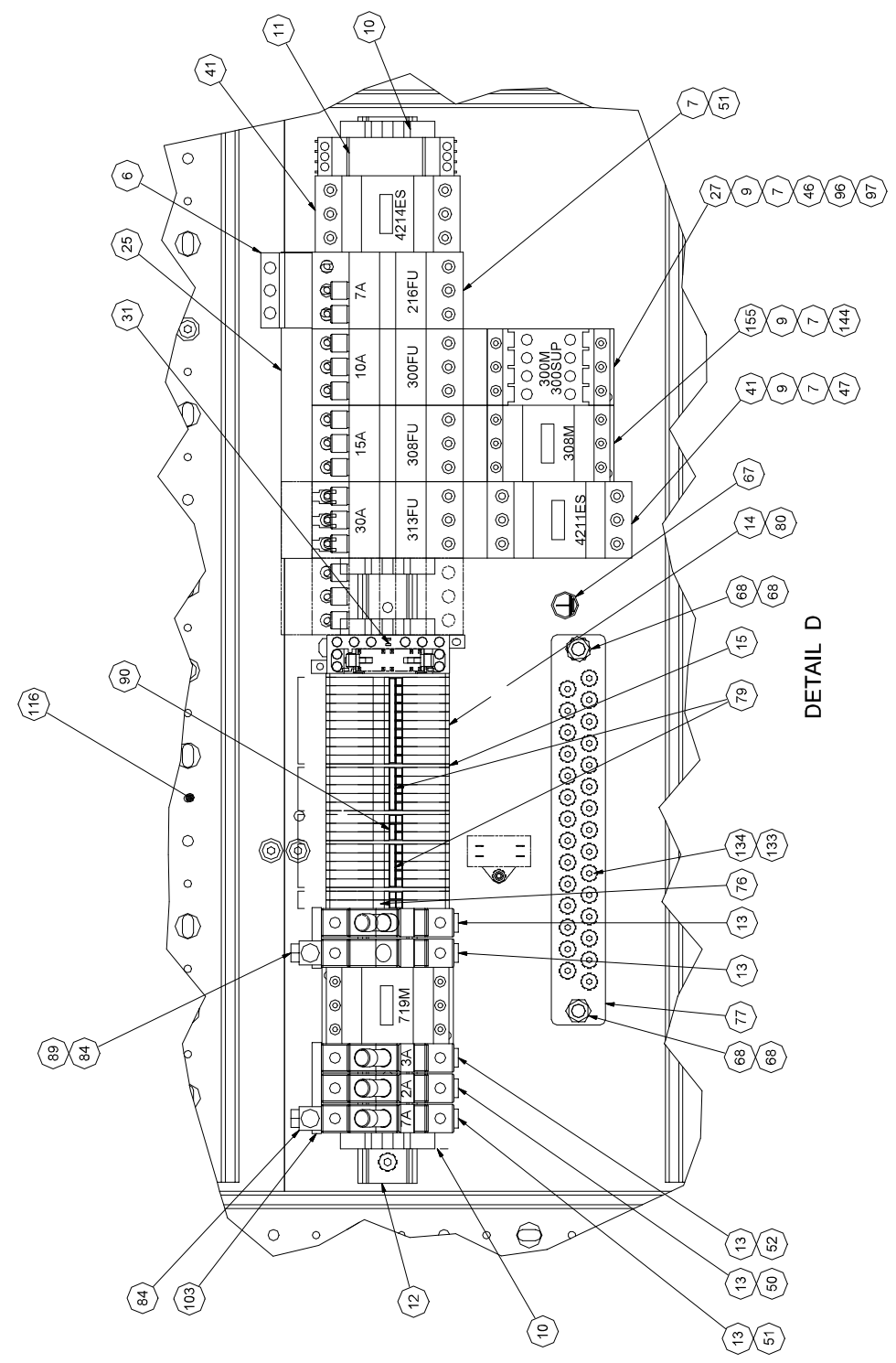
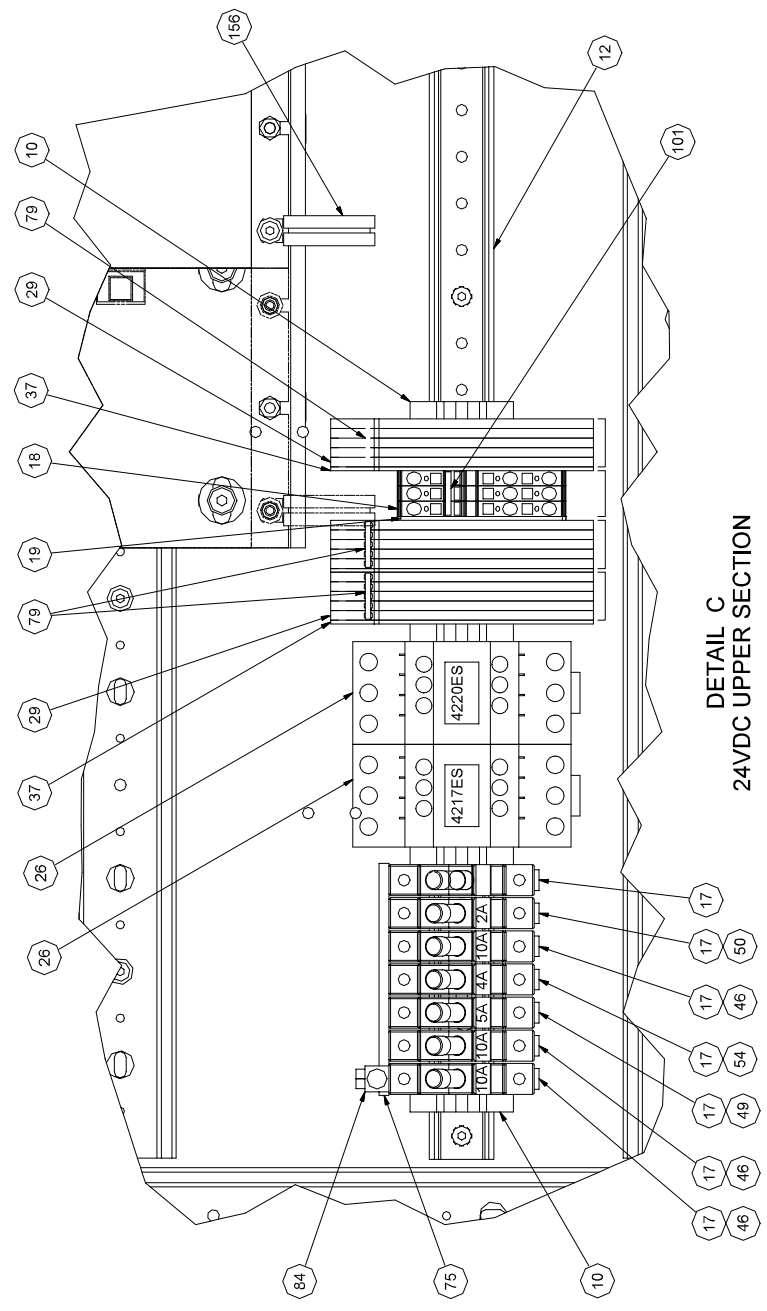
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1	DQ 0007703SS	1	UNION, ROTARY
2	DQ 0009259AN	1	SLEEVE ASSEMBLY
3	DQA0009262SST	1	CYLINDER, SUB-ASSEMBLY
4	DQ 000049202	1	NUT, ABUTMENT
5	DQ 0000492SS	1	NUT
6	DQ 000406803SS	1	NUT
7	DQ 000770306	1	SHAFT, ROTARY UNION
8	RF 0010994	.1	GREASE, SILICONE
10	NC 0010884	.1	THREADLOCKER, LOCTITE 242
11	CS 001088406	.1	THREADLOCKER, LOCTITE 29021
12	HG 0010440	.1	GREASE, ANTI-SIEZE, BLACK MOLLY
13	CT 001109601	2	COUPLING, 1/8NPT HEX
14	CT 001109207	2	NIPPLE, BRASS 1/8 x 3"
15	VL 0010884	.01	THREADLOCKER, LOCTITE 277
16	HS 0010994SL	.007	GREASE, KLUBER NBU 15
17	CN 0008221	1.5	TUBING, 1/2 OD
18	LT 0010884 S	.02	SEALANT, PIPE
19	DQA0004140SS	2	BEARING, COLLET CLOSER
20	DQ 0009261SS	1	PISTON
21	DQ 0000480SS	1	DRAWTUBE, SPINDLE
22	OR 0116119	1	O-RING
25	NC 001088402	.1	THREADLOCKER, LOCTITE 222
26	ST 0007703	2	FITTING, AIR SWIVEL
27	MS 0103517	8	SCREW, SHC, M5X0.8X16MM
28	DQ 0004937SS	2	RETAINER, GREASE
29	42 001115142	1	QUAD RING
30	TL 0006708	2	DOWEL PIN, 1/4 X 1
31	42 001115163	1	QUAD RING, 7-1/2ID X 1/8CS
32	42 001115161	1	QUAD RING, 7" OD x 6 3/4 ID
33	42 001115135	1	QUAD RING
34	S 001070013	5	PLUG, LEE
35	41 001115152	3	QUAD RING, 3.25 ID
36	CSA000943118	2	O-RING
37	MS 0103818	12	SCREW, SHC, M8X1.25X20MM
38	MW 0193810	12	WASHER, LOCK, M8
39	CD 0004629	1	PIN
40	CN 0009431	1	O-RING



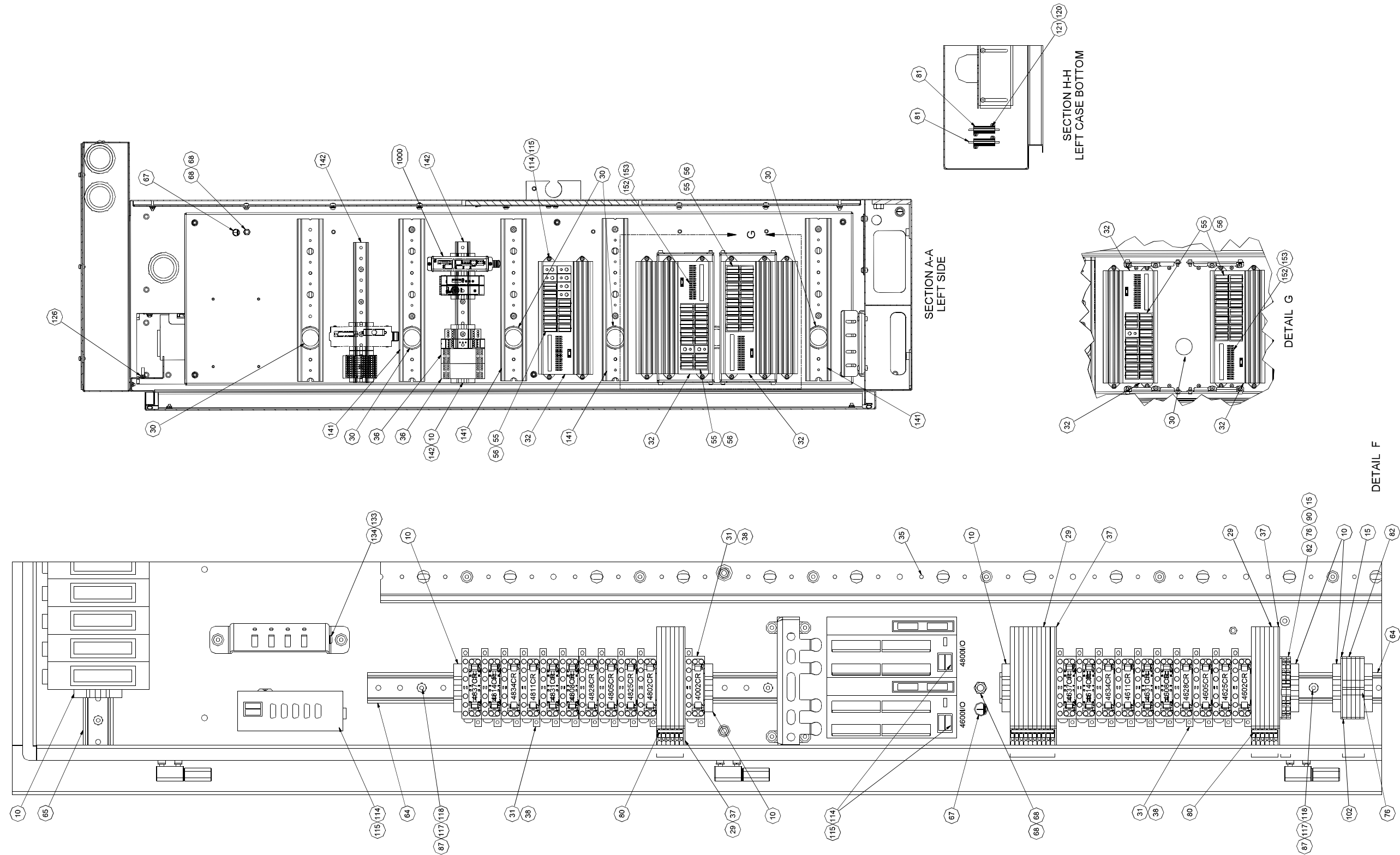
POWER CASE COMPONENT ASSEMBLY  
DQB0003279



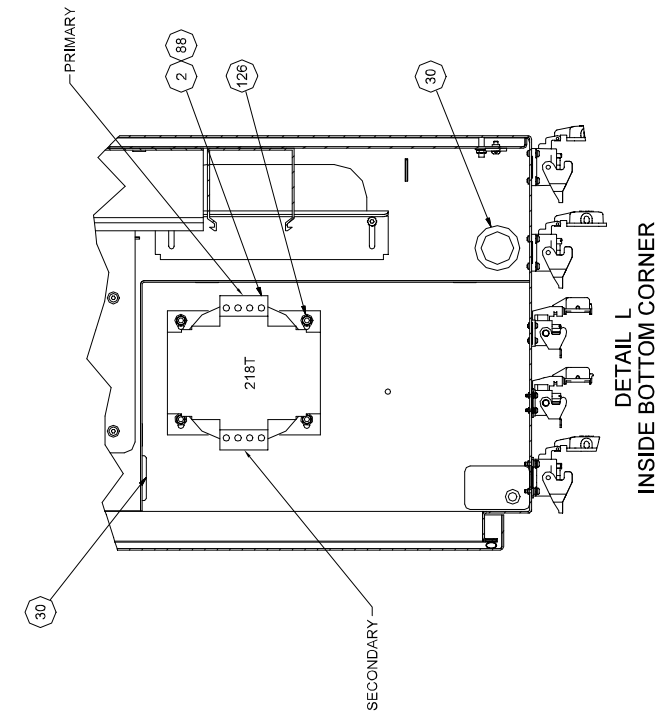
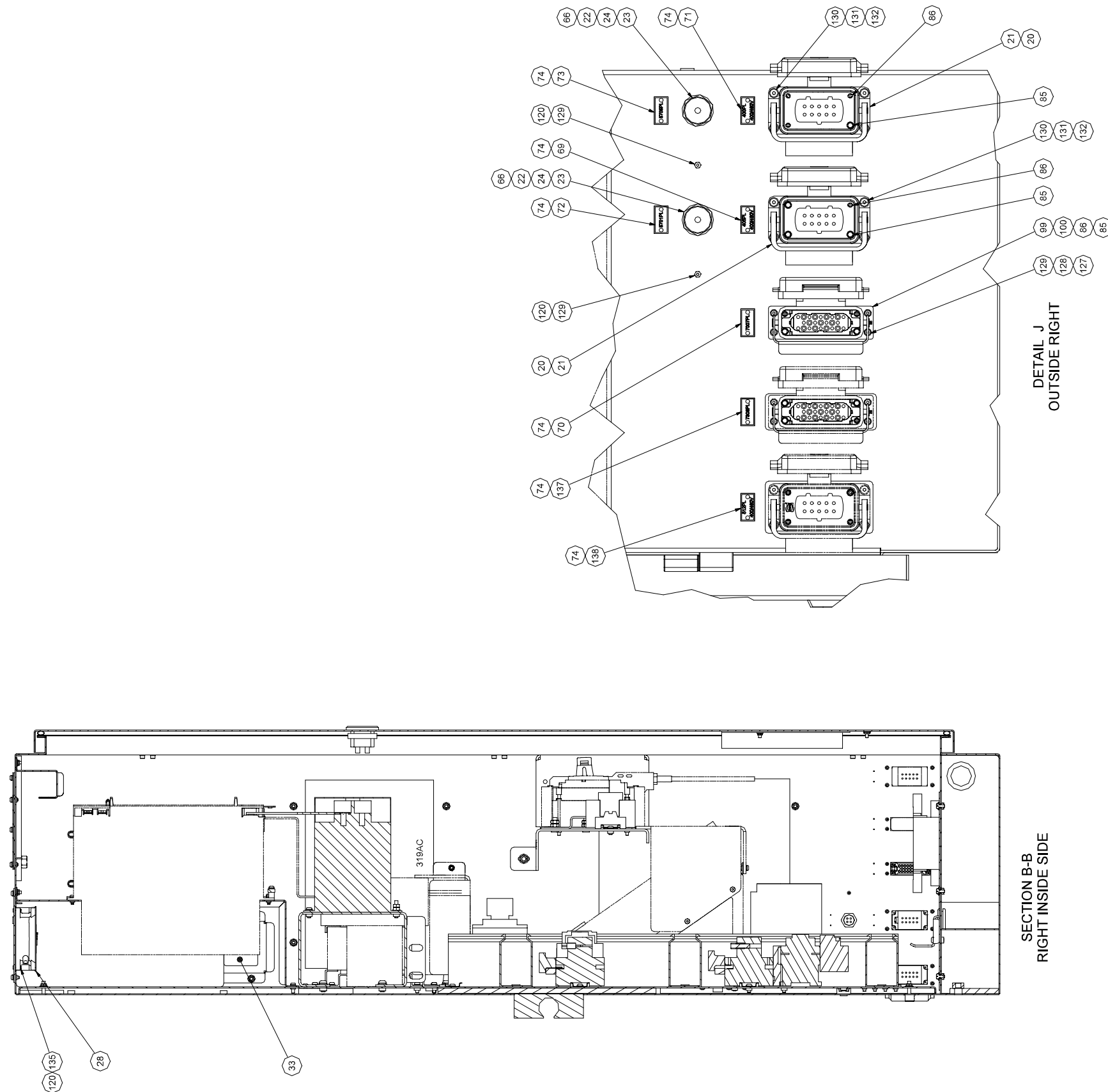




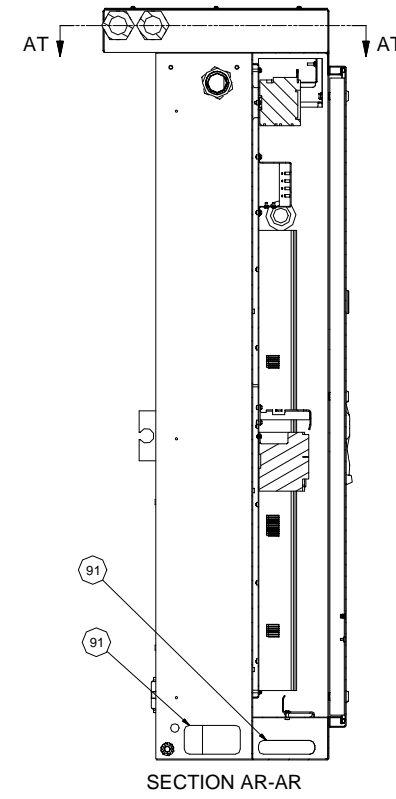
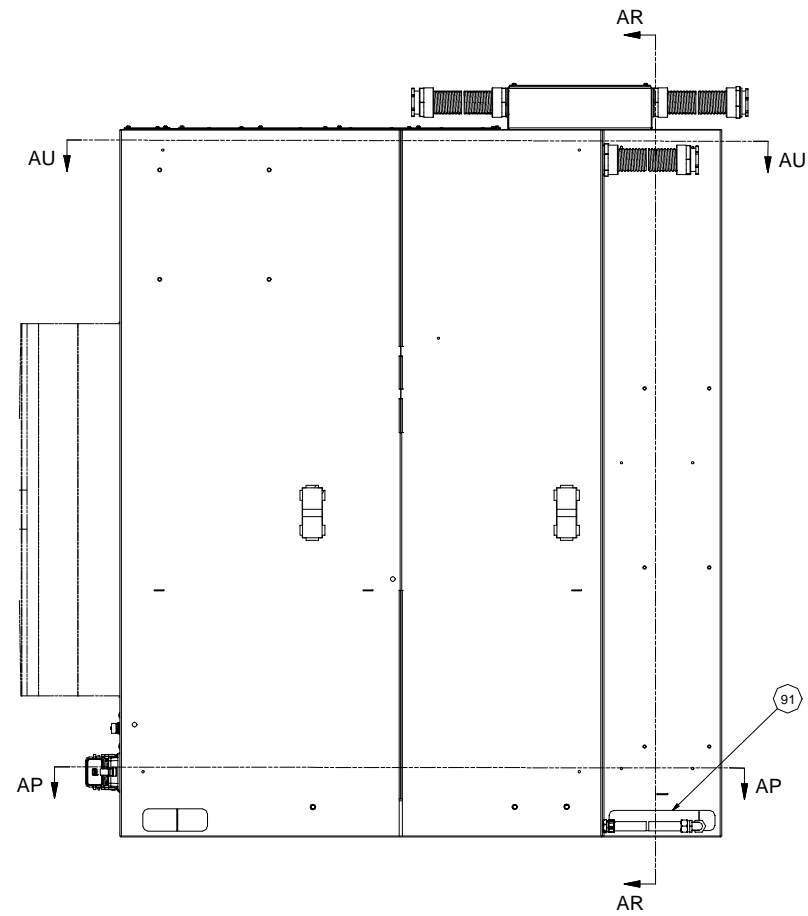
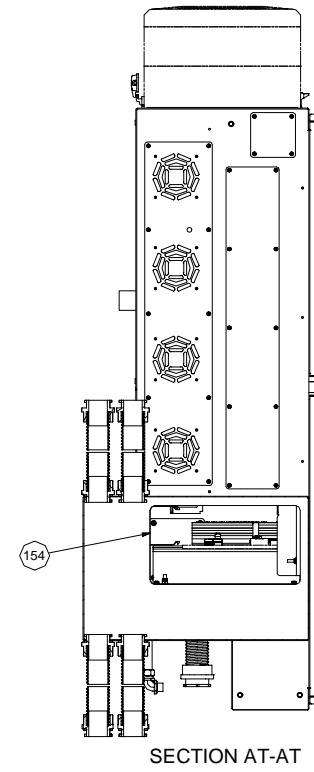
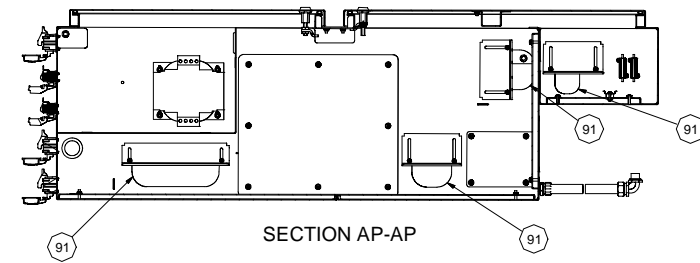
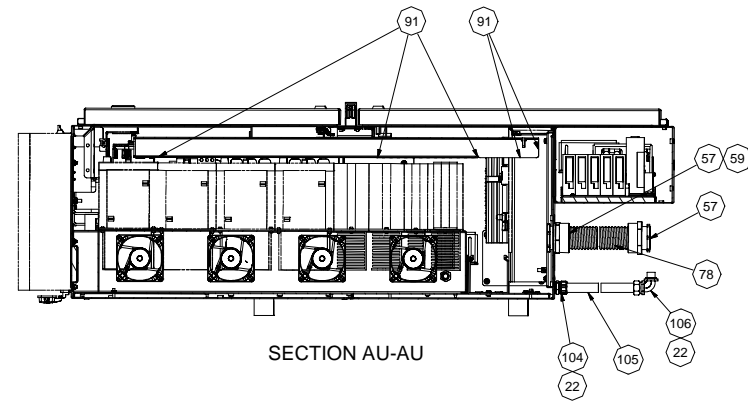
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POWER CASE COMPONENT ASSEMBLY  
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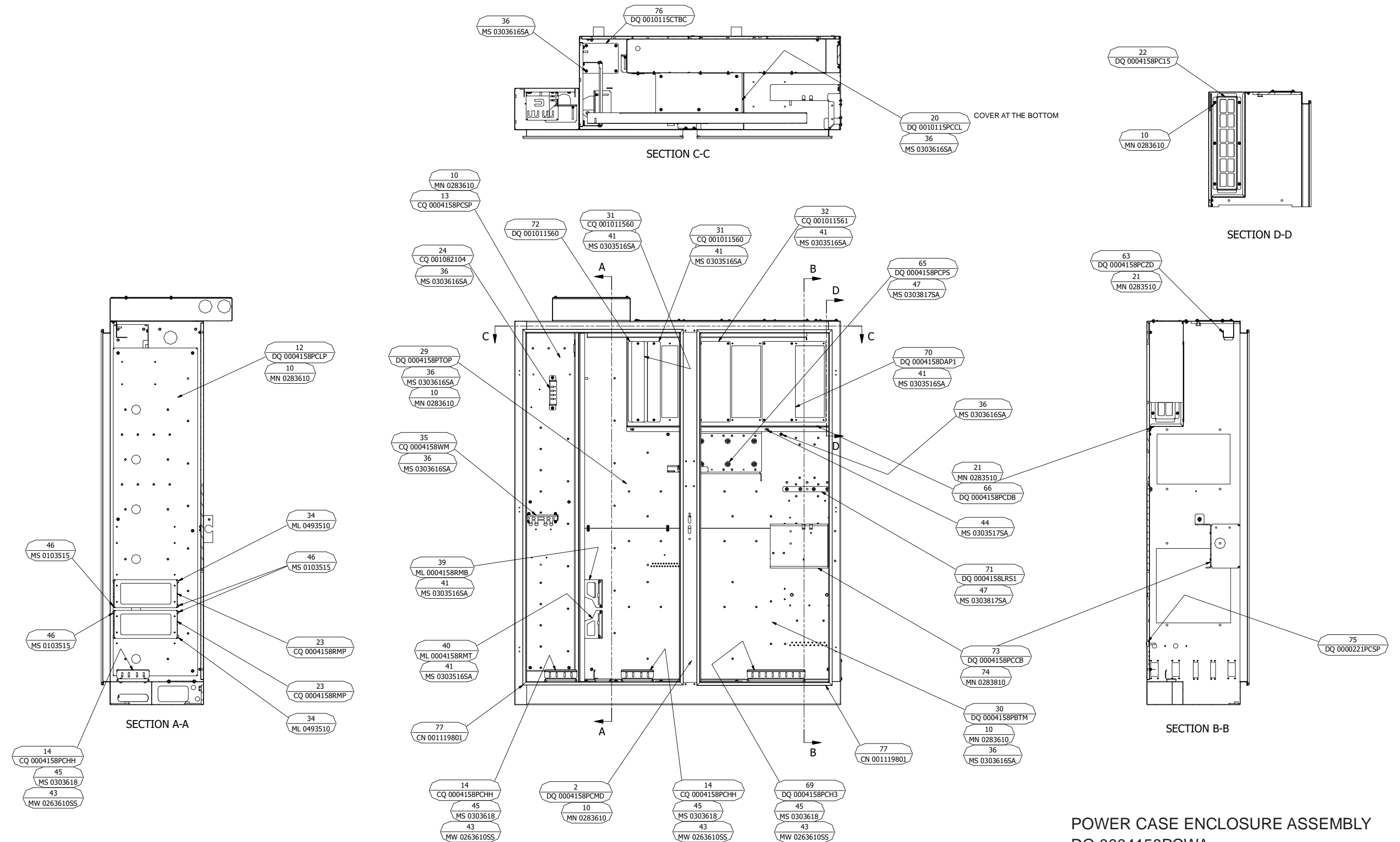
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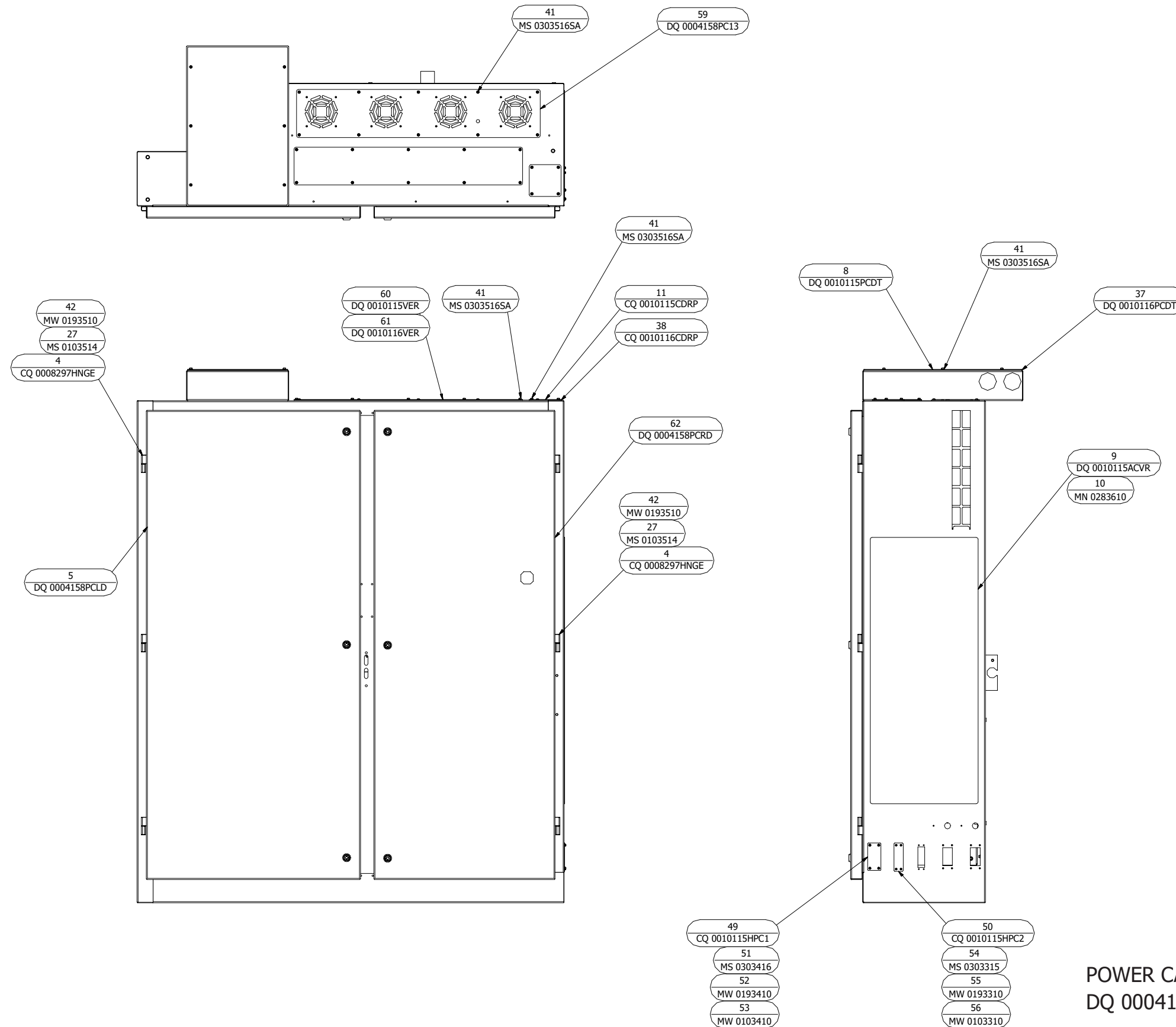
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1	SE 000877602	1	POWER SUPPLY 24VDC 40A	41	CQ 000812238AD	2	CONTACTOR, 38A 24VDC
2	SE 0008776	1	TRANSFORMER, 2KVA	42	ML 0010646	1	METER,RUN TIME
3	LP 0012135	3	SURGE SUPPRESSOR, 400V	43	DQ 0011032D4	1	DIN RAIL
4	LC 001213501	3	SURGE ABSORBER BASE	44	ML 000812202	1	BUSBAR, 2 X 45MM
5	ML 00081229ADC	6	CONTACTOR, 9A 24VDC	45	LP 0009610	3	FUSE, 6A CLASS CC
6	ML 0009188	3	TERMINAL BLOCK	46	SG 000961011	9	FUSE, 10A, CLASS CC
7	ML 0010017	15	FUSE BLOCK, CLASS CC	47	SG 000961020	3	FUSE, CLASS CC - 30A
8	SE 000983301	1	OVERLOAD 2.5-4.0 A	48	SG 000961004	3	FUSE 2-1/2A CLASS CC
9	LP 0008122CON	8	CONNECTOR	49	SG 000961001	4	FUSE, 5A CLASS CC
10	ML 0011032ES	24	END STOPS	50	SG 000961006	5	FUSE, 2A CLASS CC
11	SR 0008122	1	RELAY, PHASE SEQUENCE	51	SG 000961019	5	FUSE, 7A CLASS CC
12	DQ 0011032D2	3	DIN RAIL	52	SG 000961007	3	FUSE, 3A CLASS CC
13	SG 001001702	5	HOLDER, FUSE 1P/W IND.CC	54	VL 0009610CC04	1	FUSE, 4A CLASS CC
14	ML 0011032GY	25	TERMINAL BLOCK, GRAY	55	LC 000812203	71	RELAY, MINI 24VDC
15	ML 0011032EC	7	END COVER	56	LC 0009623	71	CLIP, RETAINING
16	DQ 0010821WD3	1	WIRE DUCT	57	CL 000770209	10	FITTING, ST. 2" NONMETALLIC
17	SG 001001703	7	HOLDER, FUSE 1P/W/O IND.CC	58	DQ 0010821WD5	1	WIRE DUCT
18	SE 001103203	3	TERMINAL BLOCK, 50A BLUE	59	2000010226	7	GASKET, 2"
19	SE 001103204	1	TERMINAL BLOCK END COVER	60	ML 0010366L1	1	TAG, L1
20	LP 0012042110	2	CONNECTOR INSERT	61	ML 0010366L2	1	TAG, L2
21	LP 0012042B	2	CONNECTOR BASE	62	ML 0010366L3	1	TAG, L3
22	50 0010226	5	GASKET ASSEMBLY 1/2 INCH	63	ML 0010366PE	4	TAG, PE
23	CS 001204214	2	RECEPTACLE	64	DQ 0011032D9	2	DIN RAIL
24	CS 001204215	2	CAP RECEPTACLE	65	DQ 0011032D11	1	DIN RAIL
25	ML 000812204	4	BUSBAR, 4 X 45MM	66	AH 0011508	3	NUT, LOCK
26	CQ 000812265	2	CONTACTOR, 65A, 24VDC	67	ML 0010366 G	15	TAG, GROUND
27	CQ 000812209	1	CONTACTOR, 9A 110V AC	68	MN 0113813	18	NUT, M8 X 1.25 BRASS
28	CN 001134901	4	FAN	69	DQ 001036601	1	TAG, 405PL
29	QC 001103201	37	TERMINAL BLOCK, 9 POINT	70	DQ 001036602	1	TAG, 7007PL
30	CL 0009532	8	GROMMET	71	DQ 001036603	1	TAG, 400PL
31	CQ 000812203	22	RELAY SOCKET	72	DQ 001036604	1	TAG, 5701PL
32	CQ 0011791	5	I/O MODULE PHOENIX	73	DQ 001036605	1	TAG, 5705PL
33	DQ 0011350	1	FILTER, CQ POWERCASE	74	R 0008044	14	PIN, ESCUTCHEON
34	DQ 0011032D3	1	DIN RAIL	75	DQ 00081221P7	1	BUSBAR, 1 POLE X 7
35	DQ 0010821WD7	1	WIRE DUCT	76	ML 00110320110	12	MARKER, 1-10
36	CQ 0008122SR01	2	RELAY, EXPANSION SAFETY	77	CQ 0008122BB10	1	GROUND BAR
37	QC 001103202	6	TERMINAL BLOCK END PLATE	78	CL 001022904	309	CONDUIT, 2" BLACK
38	CQ 000812204	13	RELAY, FG SAFETY, 2NO/2NC	79	ML 0011032J5	5	JUMPER, 5 POINT
39	CQ 0008122BB01	2	BUS BAR	80	QC 001103204	4	JUMPER, 10 POINT
40	CQ 0008122BB02	1	BUS BAR	81	CL 001047202	2	RESISTOR, 50W, 16 OHM

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
82	ML 0011032BU	7	TERMINAL BLOCK, BLUE	124	MW 0193610	4	WASHER, LOCK, M6
83	QC 000920701	1	CORD GRIP, .22-.47, 1/2NPT	125	MS 0303516SA	17	SCREW ASSEMBLY, BH M5X.8X12
84	QC 0009188	3	TERMINAL	126	MN 0283610	5	NUT, SERRATED HEX FLANGE, M6X1
85	LP 0006709BUSH	6	CODE PIN, BUSH	127	MW 0103310	4	WASHER, FLAT, M3
86	LP 0006709PIN	6	CODE PIN, PIN	128	MW 0193310	4	WASHER, LOCK, M3
87	CQ 0003990	10	SPACER, 3/4OD X 1/4ID X 3/8 AL	129	MS 0303315	6	SCREW, BTHD M3X0.5X10MM
88	SE 0008776FG	1	FINGER GUARD	130	MS 0303416	8	SCREW, BTHD M4X0.7X12MM
89	DQ 00081221P2	1	BUSBAR, 1 POLE X 2	131	MW 0103410	8	WASHER, FLAT, M4
90	ML 0011032J2	2	JUMPER, 2 POINT	132	MW 0193410	8	WASHER, LOCK, M4
91	CQ 001056504	274	EDGING, 14 GAUGE	133	MW 0263510	54	WASHER, EXTERNAL STAR M5
92	MS 0103529	2	SCREW, SHC, M5X0.8X75MM	134	MS 0303516	54	SCREW, BTHD M5X0.8X12MM
93	HG 0010546	2	NUT, 1/4-20 BRASS HEX	135	MS 0303316	16	SCREW, BTHD M3X0.5X12MM
94	SE 000983302	1	OVERLOAD 4.0-6.0 A	136	DQ 0010366IOF1	1	I/O FUSED JUMPER CHART
95	SE 000983305	1	OVERLOAD 1.0-1.6A	137	DQ 001036606	1	TAG, 7303PL
96	CQ 0011298	1	COIL SUPPRESSOR, 110V-250V	138	DQ 001036607	1	TAG, 512PL
97	CQ 0010019	1	CONTACT BLOCK, 4NO	139	DQ 0010821WD1	3	WIRE DUCT
98	LP 001001901	1	CONTACT BLOCK, 2NC	140	DQ 0008122BB08	1	GROUND BAR
99	CQ 0012042B	1	CONNECTOR BASE	141	DQ 0010821WD4	5	WIRE DUCT
100	CQ 001204201	1	CONNECTOR, 25 POS FEMALE	142	DQ 0011032D01	2	DIN RAIL
101	CQ 0011032J3	1	JUMPER, 3 POINT	143	DQ 000812201	1	CONTACTOR, 150A/200A, 110V
102	CC 0011298	2	DIODE, 3A 400V DO-27	144	SG 000961003	3	FUSE, 15A CLASS CC
103	DQ 00081221P3	1	BUSBAR, 1 POLE X 3	145	DQ 000812201FG	0.5	FINGER GUARD
104	53 001022532	1	CONNECTOR, 1/2" STRAIGHT	146	DQ 0008122BB12	1	BUS BAR, SUPPRESSOR GROUND
105	50 0010229	180	CONDUIT 1/2"	147	DQ 0008122BB09	1	BUS BAR, DRIVE GROUND
106	53 001022552	1	CONNECTOR 1/2 INCH 90 DEGRE	148	SR 0010366LB	4	TAG, ELECTRICAL
107	LC 001129801	3	SUPPRESSOR SURGE 400V	149	MN 0283510	4	NUT, SERRATED HEX FLANGE, M5X0.8
108	CQ 0008122BB12	2	BUS BAR	150	ML 0009623	2	CLAMP, P,0.125", 5MM HOLE
109	F3 000997701	100	LABEL ID	151	CQ 00112982	3	FERRITE CORE
110	MS 0303617SA	5	SCREW ASSEMBLY, M6X1X16MM	152	GG 0010366FHC	14	COVER, FUSE HOLDER
111	MS 0303517SA	9	SCREW ASSEMBLY, BH M5X.8X16	153	MS 0333010	28	SCREW, M1.6X.35X3MM PAN HEAD
114	MS 0303415	26	SCREW, BTHD M4X0.7X10MM	154	TT 001119804	48	TRIM-SEAL,150B2X3/16
115	MW 0263410	26	WASHER, EXTERNAL STAR M4	155	TT 001001605	1	CONTACTOR, 18A 24VDC
116	CQ 00112981	1	VARISTOR 110VAC, 200W/VA	156	QC 000962302	1	CLAMP CABLE - 1-1/2"
117	MW 0263610	43	WASHER, EXTERNAL STAR M6	1000	DQ 0011849 P	1	CONTROLLER, AUTOMATIC GUARD DOOR [OPTION]
118	MS 0303618	14	SCREW, BTHD M6X1X20MM				
119	MS 0303616	32	SCREW, BTHD M6X1X12MM				
120	MW 0263310	22	WASHER, EXTERNAL STAR M3				
121	MS 0303314	4	SCREW, BTHD M3X0.5X8MM				
122	MS 0303616SA	35	SCREW ASSEMBLY, 6MX1X12MM				
123	MW 0103610	4	WASHER, FLAT, M6				



POWER CASE ENCLOSURE ASSEMBLY  
DQ 0004158PCWA



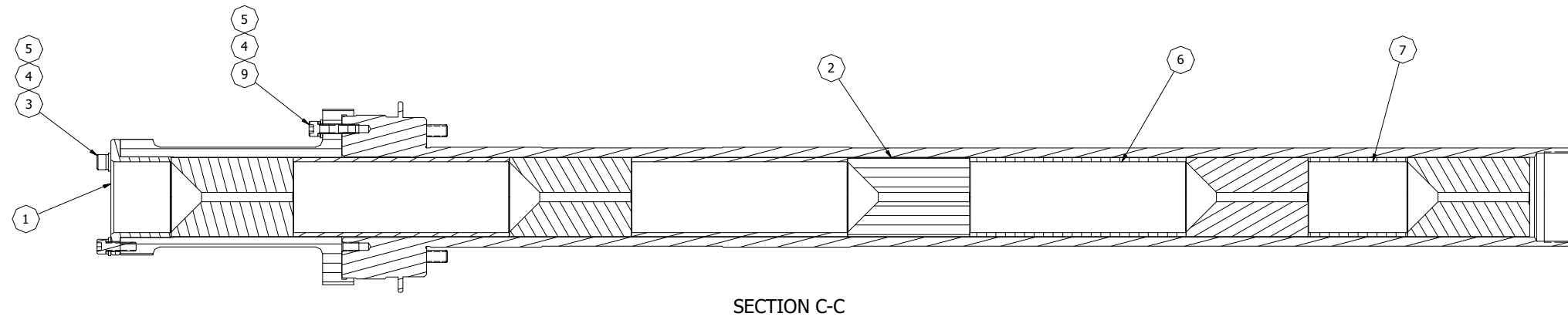
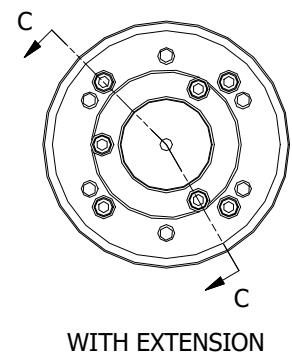
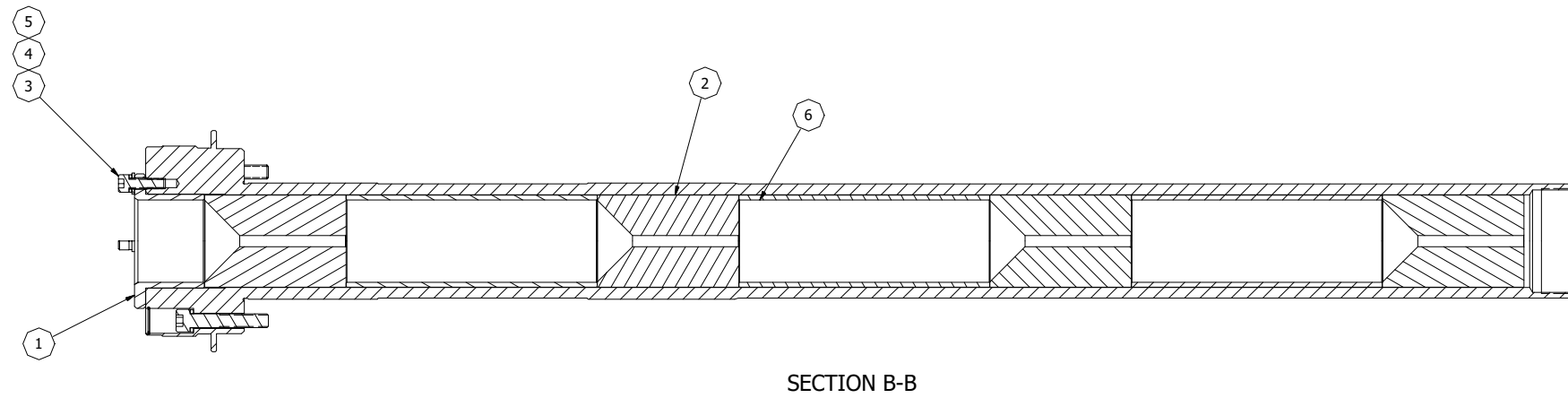
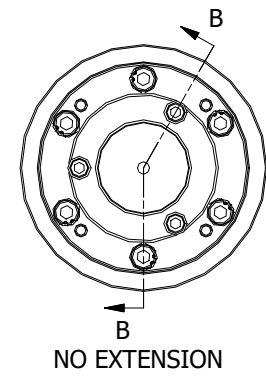


POWER CASE ENCLOSURE ASSEMBLY  
DQ 0004158PCWA

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
2	DQ 0004158PCMD	1	POWER CASE DIVIDER	55	MW 0193310	4	WASHER, LOCK, M3
4	CQ 0008297HNGE	6	HINGE, LIFTOFF	56	MW 0103310	4	WASHER, FLAT, M3
5	DQ 0004158PCLD	1	POWER CASE LEFT DOOR	59	DQ 0004158PC13	1	BRACKET, FAN
8	DQ 0010115PCDT	1	POWER CASE CONDUIT COVER	60	DQ 0010115VER	1	COVER, POWER CASE
9	DQ 0010115ACVR	1	COVER, AC, POWER CASE	61	DQ 0010116VER	1	GASKET, POWER CASE
10	MN 0283610	35	NUT, SERRATED HEX FLANGE, M6X1	62	DQ 0004158PCRD	1	POWER CASE RIGHT DOOR
11	CQ 0010115CDRP	1	COVER, POWER DROP	63	DQ 0004158PCZD	1	DUCT, POWER CASE
12	DQ 0004158PCLP	1	PANEL, LEFT POWER CASE	65	DQ 0004158PCPS	1	BRACKET, LINE REACTOR
13	CQ 0004158PCSP	1	PANEL, SMALL POWER CASE	66	DQ 0004158PCDB	1	BRACKET, DRIVE
14	CQ 0004158PCHH	3	BRACKET, CABLE CLAMP	69	DQ 0004158PCH3	1	BRACKET, CABLE CLAMP
20	DQ 0010115PCCL	1	COVER, BOTTOM	70	DQ 0004158DAP1	1	PLATE, DRIVE ADAPTER
21	MN 0283510	8	NUT, SERRATED HEX FLANGE, M5X0.8	71	DQ 0004158LRS1	1	SUPPORT, LINE REACTOR
22	DQ 0004158PC15	1	FRAME, FILTER	72	DQ 001011560	1	COVER, WITHOUT LIVE TOOLING
23	CQ 0004158RMP	2	PANEL, RACK MOUNT	73	DQ 0004158PCCB	1	PLATE, CIRCUIT BREAKER
24	CQ 001082104	1	BAR GROUND	74	MN 0283810	3	NUT, SERRATED HEX FLANGE, M8X1.25
27	MS 0103514	24	SCREW, SHC, M5X0.8X8MM	75	DQ 0000221PCSP	1	SPACER, POWER CASE
29	DQ 0004158PTOP	1	POWER CASE SWITCH PLATE	76	DQ 0010115CTBC	1	COVER, POWERCASE LOWER
30	DQ 0004158PBTM	1	POWER CASE SWITCH PLATE	77	CN 001119801	374"	SEAL DOOR, 3100B3X1/16A
31	CQ 001011560	2	COVER, WITHOUT LIVE TOOLING				
32	CQ 001011561	1	COVER, POWER DROP				
34	ML 0493510	4	SCREW, SHOULDER, M5X.8, 3.18MM				
35	CQ 0004158WM	1	BRACKET, CABLE				
36	MS 0303616SA	26	SCREW ASSEMBLY, 6MX1X12MM				
37	DQ 0010116PCDT	1	GASKET, POWER CASE CONDUIT				
38	CQ 0010116CDRP	1	GASKET, POWER DROP				
39	ML 0004158RMB	2	RACKMOUNT, BOTTOM				
40	ML 0004158RMT	2	RACKMOUNT, TOP				
41	MS 0303516SA	50	SCREW ASSEMBLY, BH M5X.8X12				
42	MW 0193510	24	WASHER, LOCK, M5				
43	MW 0263610SS	8	WASHER, LOCK M6 SS EXTERNAL				
44	MS 0303517SA	4	SCREW ASSEMBLY, BH M5X.8X16				
45	MS 0303618	8	SCREW, BTHD M6X1X20MM				
46	MS 0103515	4	SCREW, SHC, M5X0.8X10MM				
47	MS 0303817SA	10	SCREW ASSEMBLY, BHC M8X16MM				
49	CQ 0010115HPC1	1	COVER, HIGH PRESSURE				
50	CQ 0010115HPC2	1	COVER, HIGH PRESSURE				
51	MS 0303416	4	SCREW, BTHD M4X0.7X12MM				
52	MW 0193410	4	WASHER, LOCK, M4				
53	MW 0103410	4	WASHER, FLAT, M4				
54	MS 0303315	4	SCREW, BTHD M3X0.5X10MM				

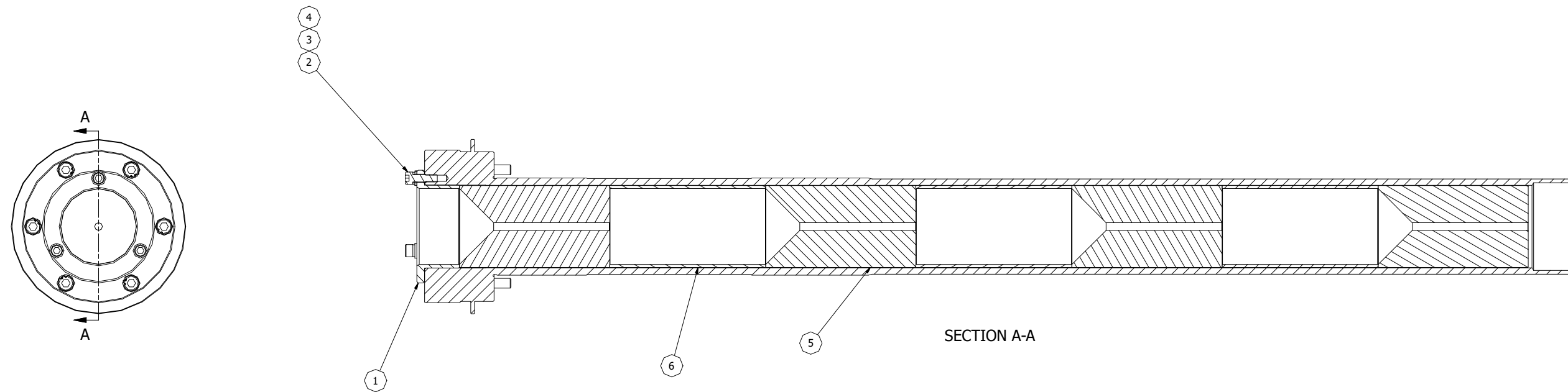
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 000406802	1	NUT, SPINDLE LINER T-51
2	SG 001201701	5	BUSHING, SPINDLE LINER (BB)
3	MS 0103618	3	SCREW, SHC, M6X1X20MM
4	MW 0193610	7	WASHER, LOCK, M6
5	MW 0103610	7	WASHER, FLAT, M6

ITEM	PART NUMBER	QTY	DESCRIPTION
6	DQ 001201751	3	SPACER, SPINDLE LINER T-51
7	DQ 001201751E	1	SPACER, SPINDLE LINER T-51
8	ML 001201751EX	1	LINER, SPINDLE EXTENSION
9	MS 0103619	4	SCREW, SHC, M6X1X25MM

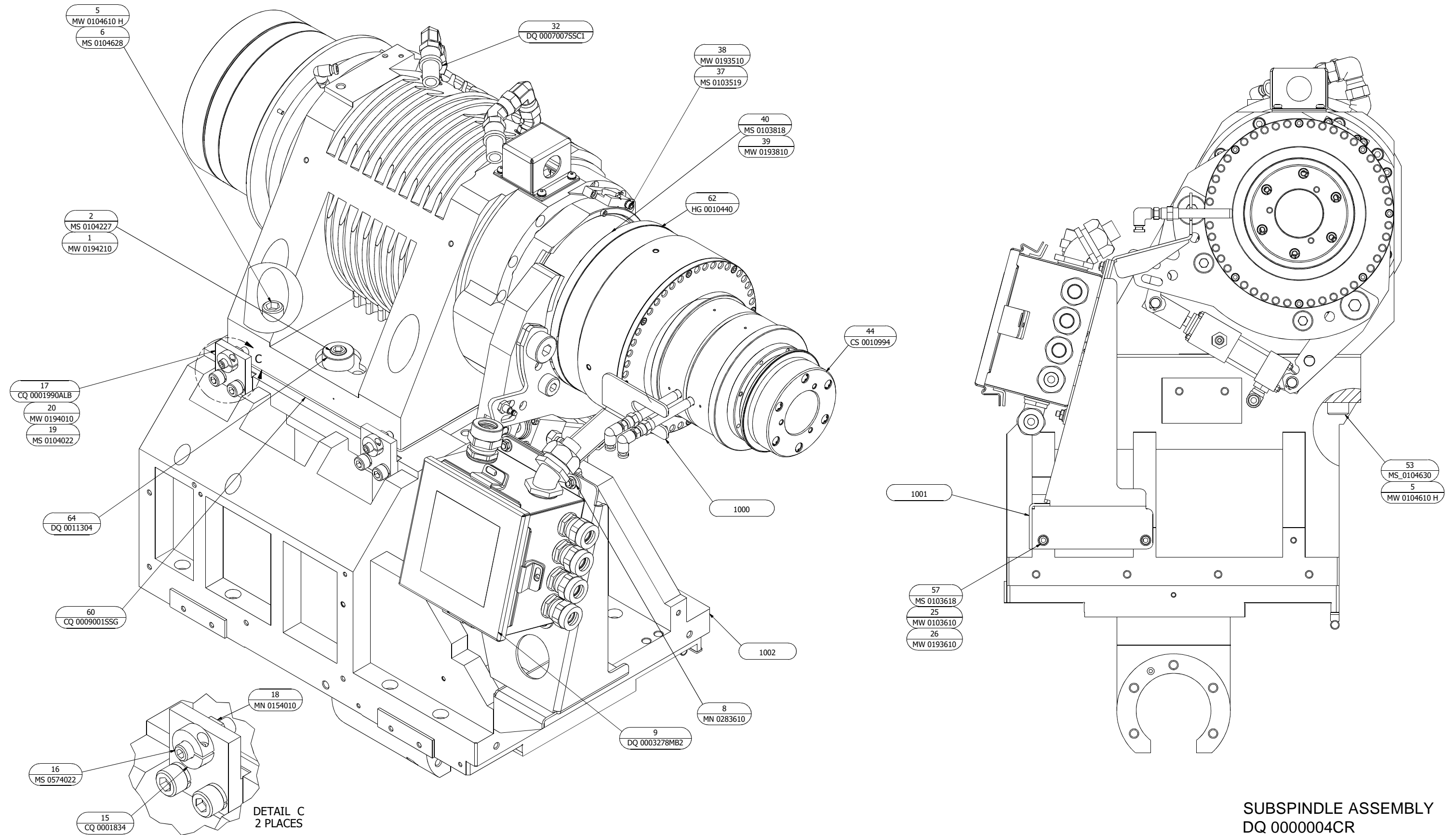


SPINDLE LINER KIT, T-51  
 PART NUMBER: DQ 0012017 S  
 DRAWING NUMBER: LO 0005262

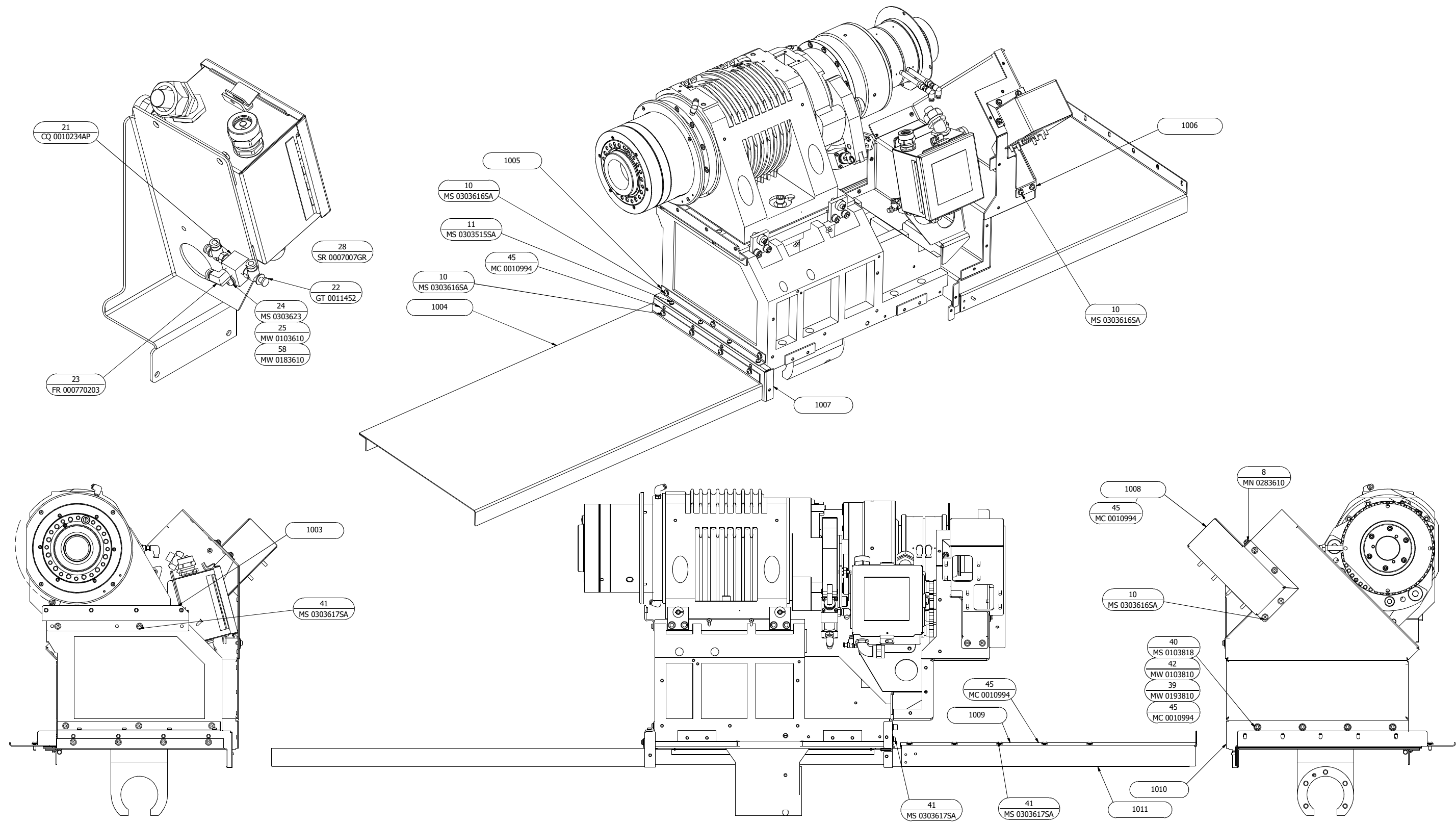
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 000406803	1	NUT, SPINDLE LINER, T-65
2	MS 0103618	3	SCREW, SHC, M6X1X20MM
3	MW 0193610	3	WASHER, LOCK, M6
4	MW 0103610	3	WASHER, FLAT, M6
5	CL 001201703	4	BUSHING, SPINDLE LINER T-65
6	EQ 001201765	3	SPACER, SPINDLE LINER T-65



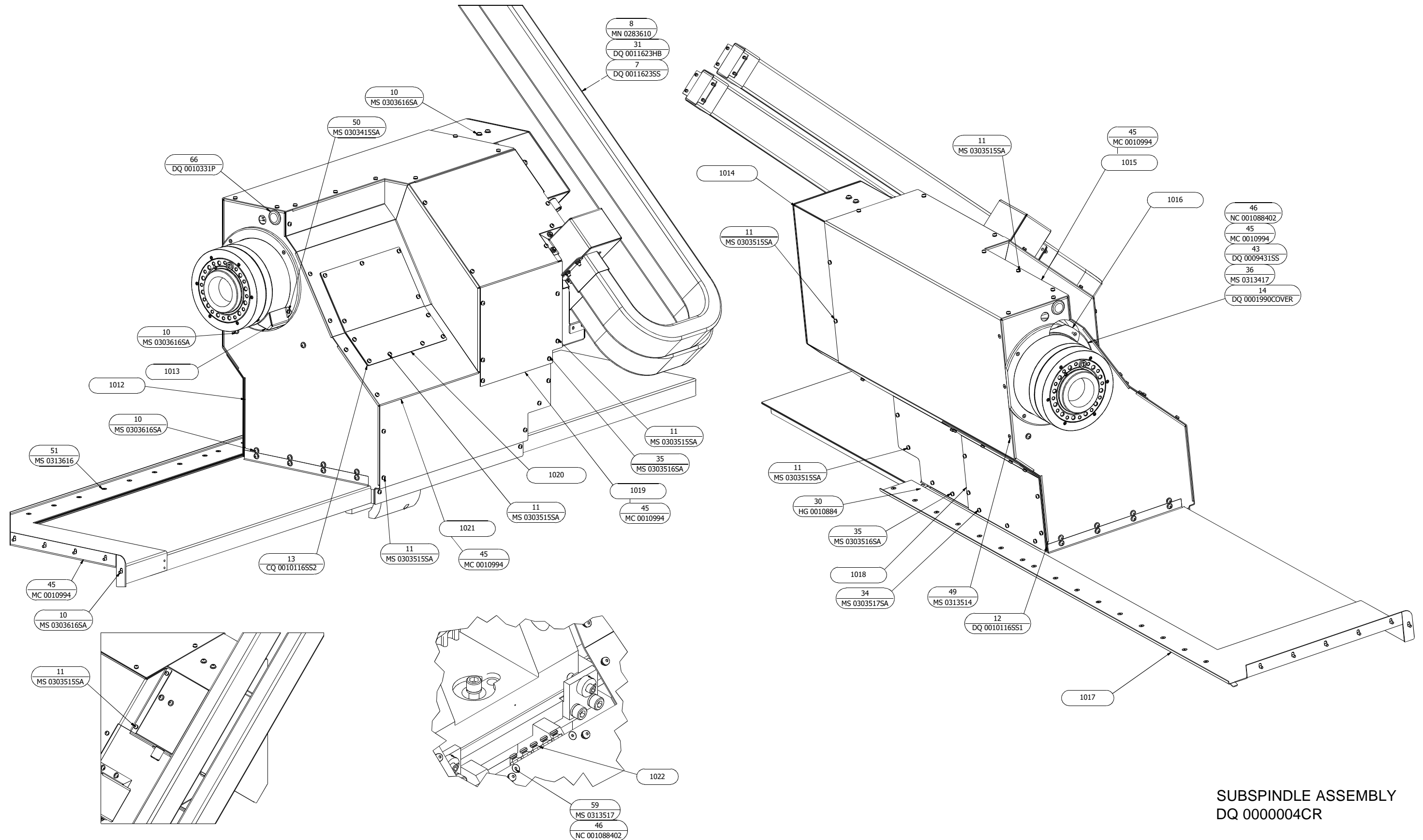
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 PART NUMBER: EQ 0012017 S  
 DRAWING NUMBER: LO 0005265



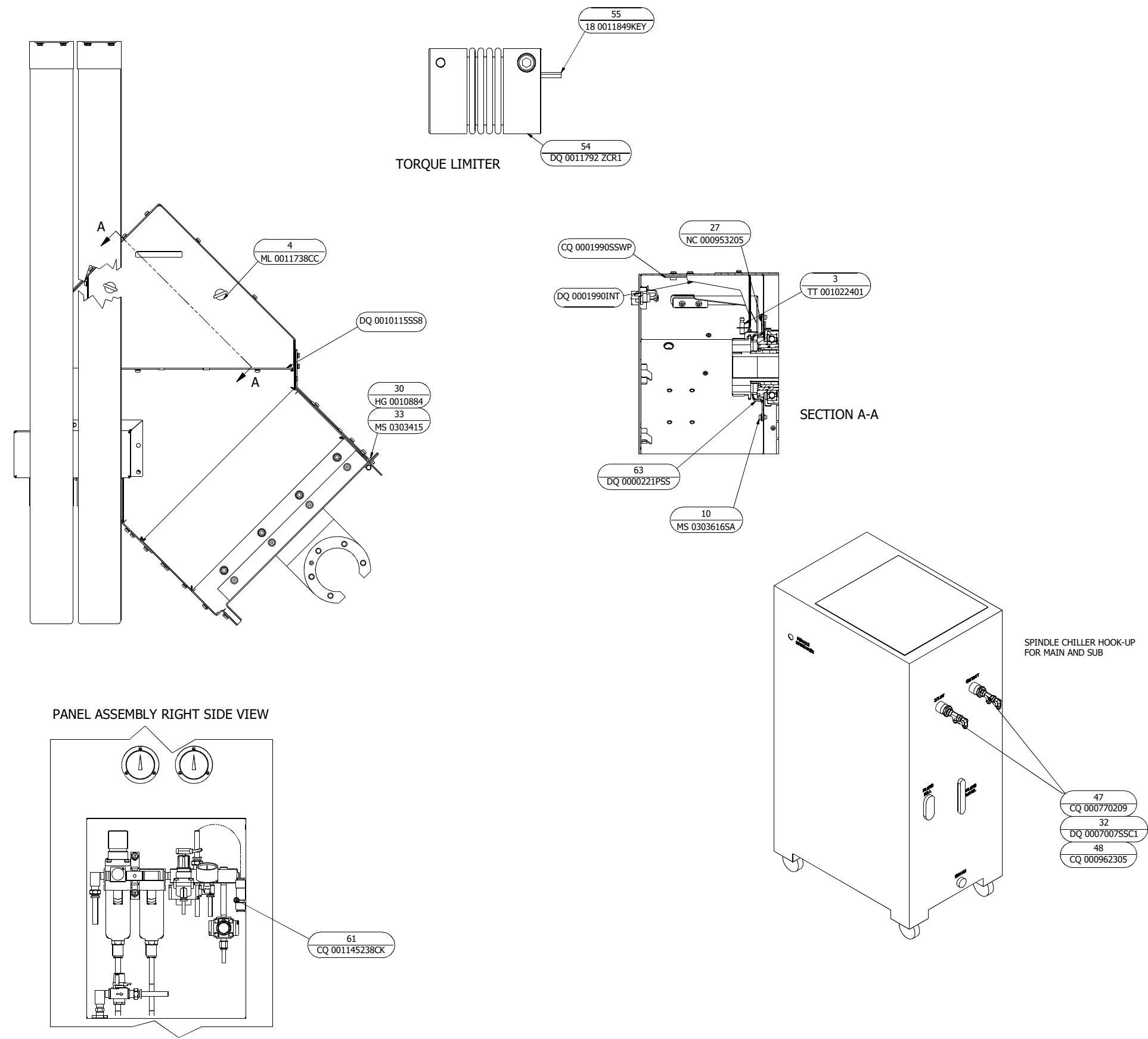
SUBSPINDLE ASSEMBLY  
DQ 000004CR



SUBSPINDLE ASSEMBLY  
DQ 000004CR



SUBSPINDLE ASSEMBLY  
DQ 0000004CR

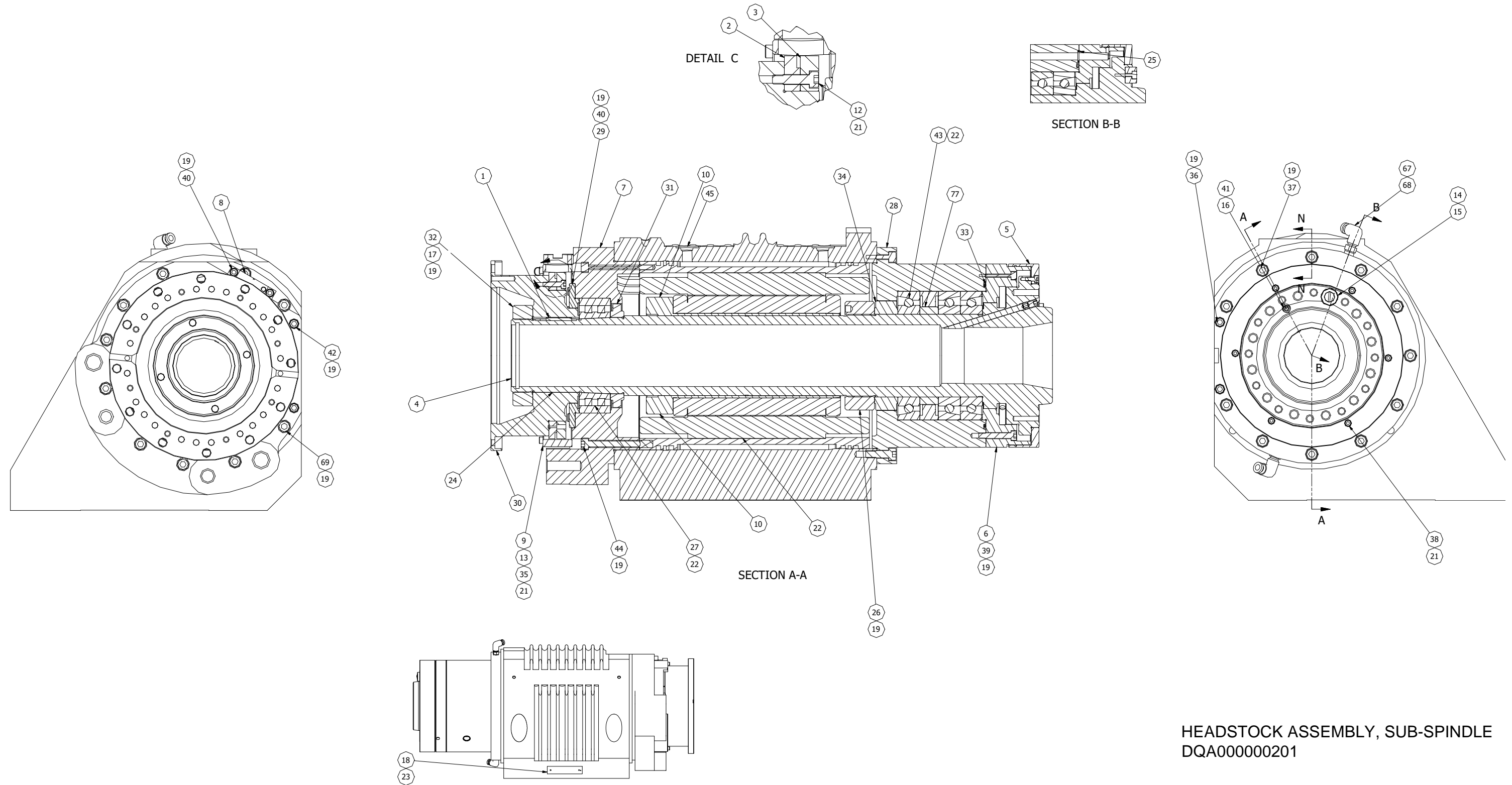


SUBSPINDLE ASSEMBLY  
DQ 000004CR

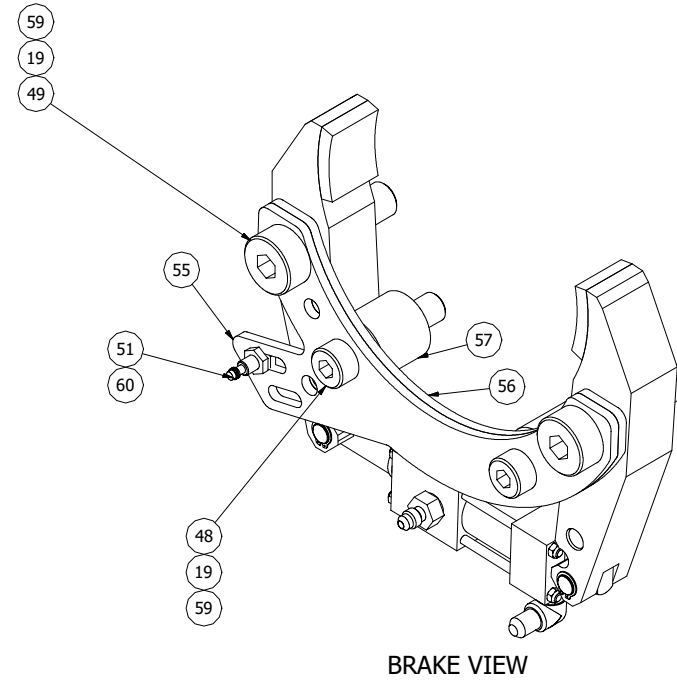
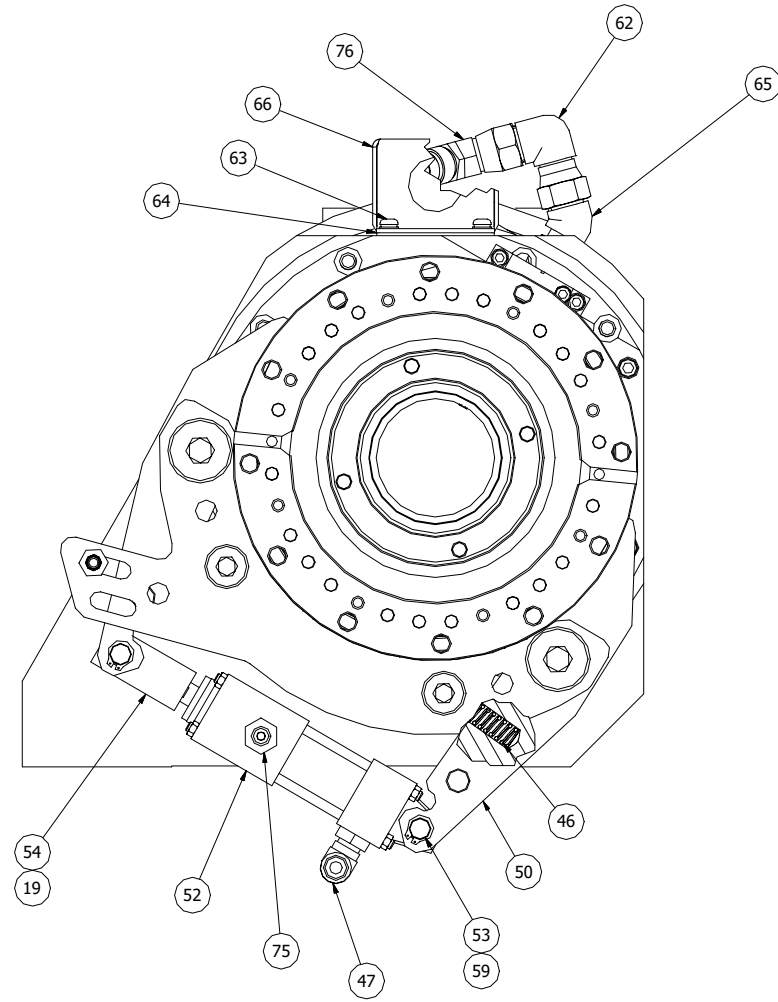
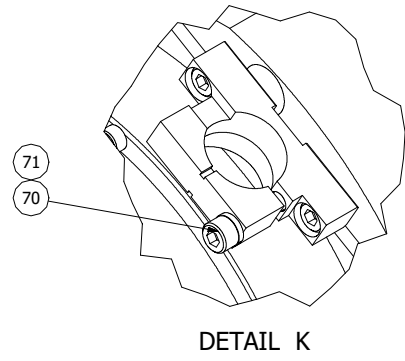


Sub-Spindle Assembly

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	MW 0194210	1	WASHER, LOCK, M12	41	MS 0303617SA	12	SCREW ASSEMBLY, M6X1X16MM	1015	DQ 0010115SS3	-	COVER, SUB-SPINDLE UPPER
2	MS 0104227	1	SCREW, SHC, M12X1.75X65MM	42	MW 0103810	4	WASHER, FLAT, M8	1016	DQ 0001990SS7	-	RETAINER, COOLANT RING
3	TT 001022401	2	SWITCH, PROXIMITY, 8MM W/CON	43	DQ 0009431SS	1	O-RING	1017	DQ 0010115ST	-	COVER, STATIONARY
4	ML 0011738CC	2	LATCH, COMPRESSION	44	CS 0010994	0.1	GREASE	1018	DQ 0010115SS4	-	COVER, SUB-SPINDLE UPPER ACCESS
5	MW 0104610 H	5	WASHER, FLAT, HARD, M16	45	MC 0010994	0.3	GREASE, SILICON	1019	DQ 0010115SS5	-	COVER, SUB-SPINDLE LOWER REAR
6	MS 0104628	2	SCREW, SHC, M16X2X70MM	46	NC 001088402	0.1	THREADLOCKER, LOCTITE 222"	1020	DQ 0010115SS11	-	COVER, SUB-SPINDLE LOWER ACCESS
7	DQ 0011623SS	2	GORTUBE, 60" SUBSPINDLE	47	CQ 000770209	2	RUN TEE, -8 JIC SWIVEL NUT	1021	DQ 0010115SS2	-	COVER, SUB-SPINDLE LOWER
8	MN 0283610	27	NUT, SERRATED HEX FLANGE, M6X1	48	CQ 000962305	1	CLAMP, HOSE	1022	TT 0010234	-	MMANIFOLD ASSEMBLY, LUBRICATION
9	DQ 0003278MB2	1	ELEC KIT, JUNCTION BOX	49	MS 0313514	3	SCREW, FHC, M5 X 0.8 X 10MM	1023	DQ 0010115SS8	-	COVER, COOLANT CATCHER
10	MS 0303616SA	33	SCREW ASSEMBLY, 6MX1X12MM	50	MS 0303415SA	2	SCREW ASSEMBLY, M4X.7X10MM	1024	DQ 0001990INT	-	BRACKET, SUBSPINDLE COLLET CLOSER
11	MS 0303515SA	54	SCREW ASSEMBLY, BH M5X.8X10	51	MS 0313616	16	SCREW, FHD SOC, M6X1.0X12	1025	CQ 0001990SSWP	-	SWITCH PLATE, SUB-SPINDLE
12	DQ 0010116SS1	1	GASKET, SUB-SPINDLE COVER	52	DQC0010115SSA	1	SHEETMETAL KIT, SUB-SPINDLE				
13	CQ 0010116SS2	1	GASKET, SUB-SPINDLE COVER	53	MS 0104630	3	SCREW, SHC, M8X1.25X65MM				
14	DQ 0001990COVER	1	RING, COOLANT	54	DQ 0011792 ZCR1	1	COUPLING, Z AXIS				
15	CQ 0001834	2	COLLAR, THREADED SHAFT	55	18 0011849KEY	1	HALF KEY				
16	MS 0574022	2	SCREW, SOCKET SET, FP M10X1.50X40	57	MS 0103618	2	SCREW, SHC, M6X1X20MM				
17	CQ 0001990ALB	2	BLOCK, ALIGNMENT	58	MW 0183610	1	WASHER, LOCK REGULAR				
18	MN 0154010	2	NUT, JAM M10X1.5	59	MS 0313517	2	SCREW, FHC, M5X0.8X16MM				
19	MS 0104022	4	SCREW, SHC, M10X1.5X40MM	60	CQ 0009001SSG	1	SHIM, SUBSPINDLE				
20	MW 0194010	4	WASHER, LOCK, M10	61	CQ 001145238CK	1	VALVE, 3/8 PUSH TO CONNECT CHECK				
21	CQ 0010234AP	1	MANIFOLD, AIR PURGE	62	HG 0010440	0.01	GREASE, ANTI-SEIZE				
22	GT 0011452	2	FLOW CONTROL, 1/8NPT 1/4 TUBE	63	DQ 0000221PSS	1	GUARD, PINCH POINT				
23	FR 000770203	1	CONNECTOR, 90 DEGREE	64	DQ 0011304	1	BUSHING				
24	MS 0303623	1	SCREW, BTHD M6X1X45MM	66	DQ 0010331P	1	PLUG, 1/2" CONDUIT HOLE				
25	MW 0103610	3	WASHER, FLAT, M6	67	QC 000962302	1	CLAMP CABLE - 1-1/2"				
26	MW 0193610	2	WASHER, LOCK, M6	1000	DQ 0001990CZAR	-	BRACKET, SUB-SPINDLE ANTI-ROTATION				
27	NC 000953205	2	GROMMET	1001	DQA0001990JBCZ	-	BRACKET, JUNCTION BOX				
28	SR 0007007GR	276"	TUBING, FLEXIBLE	1002	DQA00003771SS	-	BASE, SUB-SPINDLE				
29	LT 0010884 S	0.1	SEALANT, PIPE	1003	CQ 0001990SS1	-	BRACKET, SUB-SPINDLE FRONT COVER				
30	HG 0010884	0.2	ULTRABLUE 81724 GASKET MAKER	1004	DQ 0010115TSWC	-	WAYCOVER, LOWER AXIS FRONT				
31	DQ 0011623HB	2	HOSE BAG, GORTUBE	1005	DQ 0001990SS2	-	BRACKET, WAYCOVER MOUNTING				
32	DQ 0007007SSC1	2	HOSE, SUB CHILLER	1006	DQ 0000221GTCV	-	COVER, SUB-SPINDLE GORETUBE CHIP				
33	MS 0303415	1	SCREW, BH M4X.7X10	1007	DQ 0001990SS3	-	BRACKET, WAYCOVER MOUNTING				
34	MS 0303517SA	12	SCREW ASSEMBLY, BH M5X.8X16	1008	DQ 0000221GTDB	-	BRACKET, DUAL GORETUBE				
35	MS 0303516SA	3	SCREW ASSEMBLY, BH M5X.8X12	1009	DQ 0010115RST	-	COVER, STATIONARY REAR				
36	MS 0313417	4	SCREW, FHC, M4 X 0.7 X 12MM	1010	DQ 0010115SS9	-	COVER, SUB-SPINDLE REAR				
37	MS 0103519	1	SCREW, SHC, M5X0.8X25MM	1011	DQ 0010115TSSR	-	WAYCOVER, LOWER AXIS REAR				
38	MW 0193510	1	WASHER, LOCK, M5	1012	DQ 0010115SS1	-	COVER, SUB-SPINDLE FRONT				
39	MW 0193810	16	WASHER, LOCK, M8	1013	DQ 0010115LD	-	COVER, MOTOR DRIP				
40	MS 0103818	16	SCREW, SHC, M8X1.25X20MM	1014	DQ 0001990SSCC	-	COOLANT CATCHER, SUB-SPINDLE				



HEADSTOCK ASSEMBLY, SUB-SPINDLE  
DQA00000201

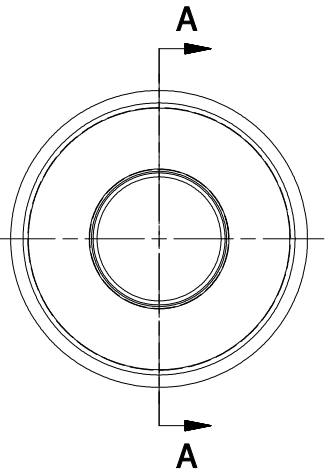
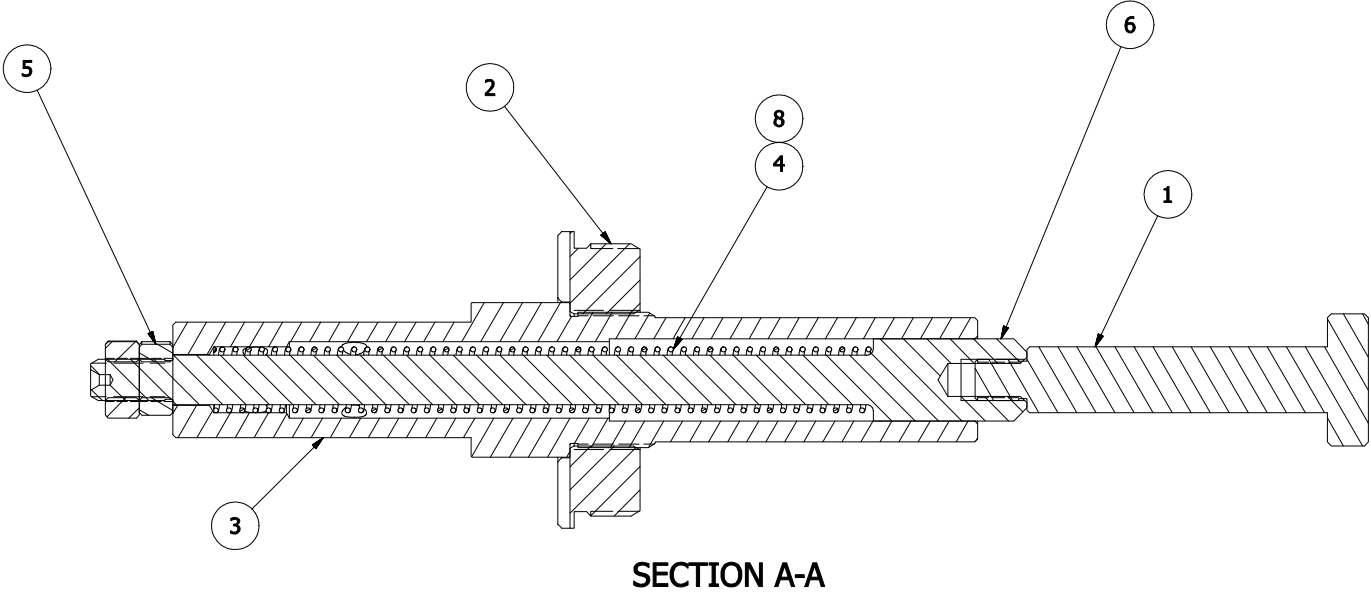


HEADSTOCK ASSEMBLY, SUB-SPINDLE  
DQA00000201

Sub-Spindle Headstock

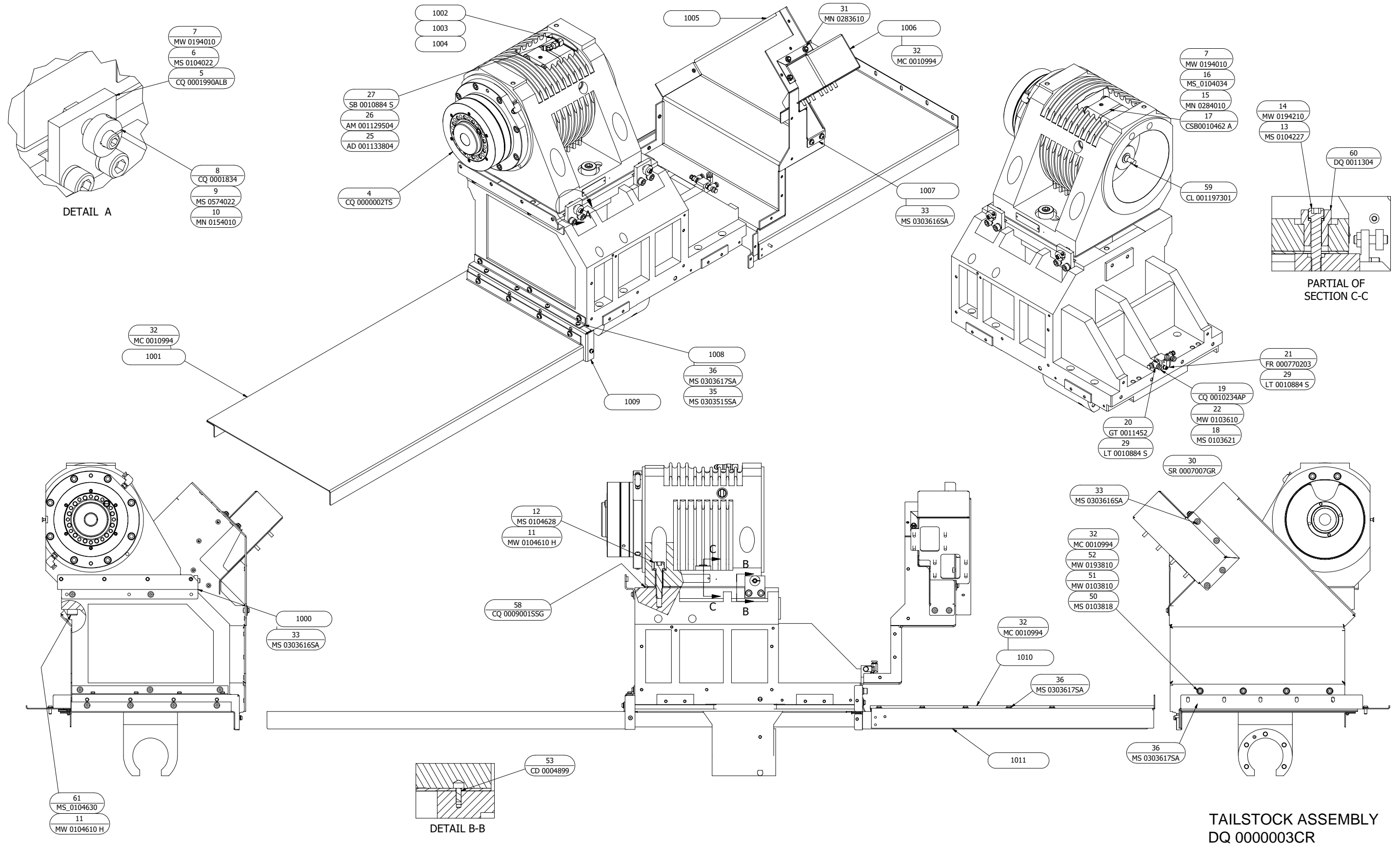
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1	QCA0006317	1	KEY	41	CL 0000284	1	KEY, COLLET
2	QC 000405201	1	ENCODER RING	42	MS 0103622	2	SCREW, SHC, M6X1X40MM
3	QC 0004660	1	ENCODER GEAR	43	CQ 0000265BB	1	BEARING ASSEMBLY, FRONT
4	CQ 0000283BB	1	SPINDLE	44	MS 0103828	11	SCREW, SHC, M8X1.25X70MM
5	CQ 0000283SLBB	1	SLINGER, SPINDLE	45	CQC0000264SS	1	HOUSING, SUBSPINDLE
6	CQ 0000275BLBB	1	CAP, HEADSTOCK	46	TT 000733501	1	SPRING
7	CQ 001117606SBB	1	HOUSING, REAR BEARING	47	QC 000770202	1	ELBOW, 90 DEGREE
8	QCA000783901	1	BRACKET, READ HEAD	48	0121828	2	SHOULDER SCREW, 5/8-11X1.75
9	CQ 000405205	1	RING, ENCODER GUARD	49	0122028	2	SHOULDER SCREW, 3/4-10X1.75
10	CQ 001179305BB	1	ROTOR ASSEMBLY	50	CQ 0000501BB	2	LEVER, SPINDLE BRAKE
11	S 001070007	1	LEE PLUG, 0.281	51	TT 001022401	1	SWITCH, PROXIMITY
12	MS 0103518	6	SCREW, SHC, M5X0.8X20MM	52	QC 0002917SS	1	CYLINDER, BRAKE SUBSPINDLE
13	MS 0103422	2	SCREW, SHC, M4X0.7X40MM	53	TT 000291702	2	PIVOT PIN, 7/16OD X 1-5/16
14	CL 001192001	1	SCREW, BUTTON	54	TT 000291701	1	KNUCKLE, SPINDLE BRAKE
15	CL 0011920	1	BUTTON, DRIVING	55	TTA0001990SP1	1	BRACKET, SPINDLE BRAKE
16	MS 0553815	1	SCREW, SET, CUP, M8X1.25X10	56	TTA0001990SP	1	BRACKET, BRAKE
17	NT 0006708	1	PIN, PULL OUT DOWEL	57	TT 0010481	2	SPACER, SPINDLE BRAKE
18	R 0008044	2	PIN, ESCUTCHEON	59	VS 0010440	.1	GREASE, ANTI-SIEZE
19	NC 0010884	.1	THREADLOCKER, LOCTITE 242	60	CS 001088406	.02	THREADLOCKER, LOCTITE 290
21	NC 001088401	.1	THREADLOCKER, LOCTITE 222	61	SB 0010884 S	.1	SEALANT, HYDRAULIC
22	HS 0010994SL	.020	GREASE	62	CS 000838406	2	ELBOW, 90 DEGREE -8 SWIVEL
23	QC 0001535	1	LABEL, MODULE	63	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
24	KH 001088402	.1	RETAINING COMPOUND, LOCTITE 635	64	QC 001011602	1	GASKET, COVER WIRING
25	OR 0000608	2	O-RING	65	CQ 000770205	2	ELBOW, 45 DEGREE -8 JIC X -6 SAE
26	QCA000406804	1	NUT	66	CQ 0010115HDS	1	COVER, SUBSPINDLE WIRING
27	BL 00002663016	1	ROLLER BEARING, REAR	67	LT 0010884 S	.1	SEALANT, PIPE
28	CQ 001117605 B	1	HOUSING, FRONT BEARING	68	ST 0007703	2	FITTING, AIR SWIVEL
29	CQ 0004937BB	1	RETAINER, REAR BEARING	69	MS 0103823	10	SCREW, SHC, M8X1.25X45MM
30	CQ 001179701CBB	1	MOUNT, COLLET CLOSER	70	MS 0103519	1	SCREW, SHC, M5X0.8X25MM
31	BL 000179920A	1	SPACER, REAR BEARING	71	MW 0193510	1	WASHER, LOCK, M5
32	QCA000406801	1	NUT	72	DQ 0011198SUB	1	LIP SEAL, SPINDLE
33	OR 0009498	1	O-RING	75	SB 001078603	1	CONNECTOR, STRAIGHT -4 JIC X -6 SAE
34	QCA000405706	1	SPACER, REAR BEARING	76	CQ 000770208	1	ELBOW, 45 DEGREE -8 SWIVEL
35	MS 0103420	2	SCREW, SHC, M4X0.7X30MM	77	BL 0001799 A	1	SPACER ASSEMBLY
36	MS 0103619	2	SCREW, SHC, M6X1X25MM				
37	MS 0103819	11	SCREW, SHC, M8X1.25X25MM				
38	MS 0103415	6	SCREW, SHC, M4X0.7X10MM				
39	MS 0103621	12	SCREW, SHC, M6X1X35MM				
40	MS 0103515	12	SCREW, SHC, M5X0.8X10MM				

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0000154PS1	1	EJECTOR
2	DQ 000015420	1	BUSHING, 20C COLLET ADAPTER
3	DQ 0000154BH20	1	BUSHING, EJECTOR
4	CQ 0007335038	1	SPRING
5	MN 0113810	2	NUT, HEX 934 REG. M8-1.25
6	CQ 0000154PL	1	EJECTOR
7	CQ 0000154PS	1	EXTENSION, EJECTOR
8	CQ 0007335042	1	SPRING

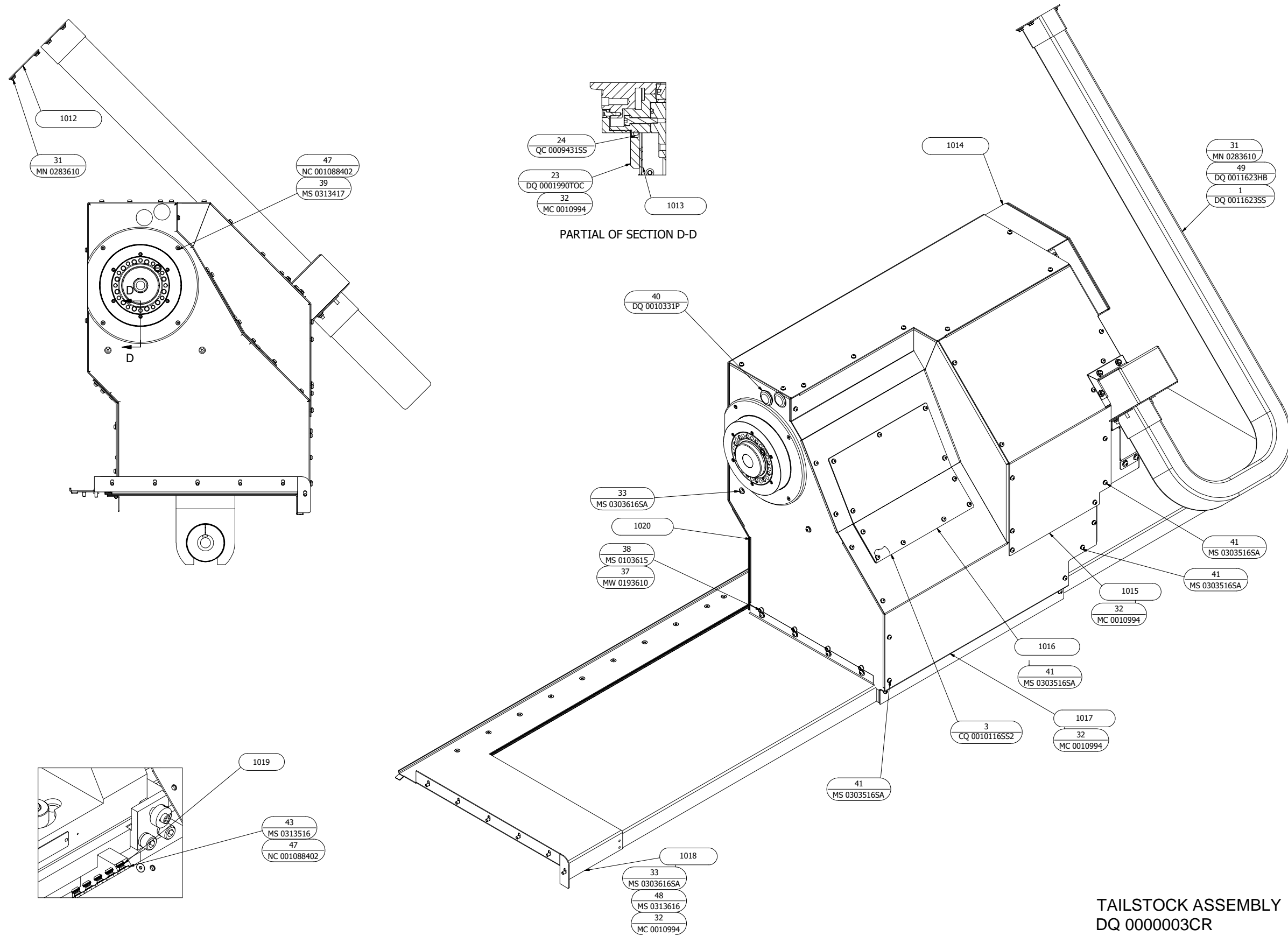


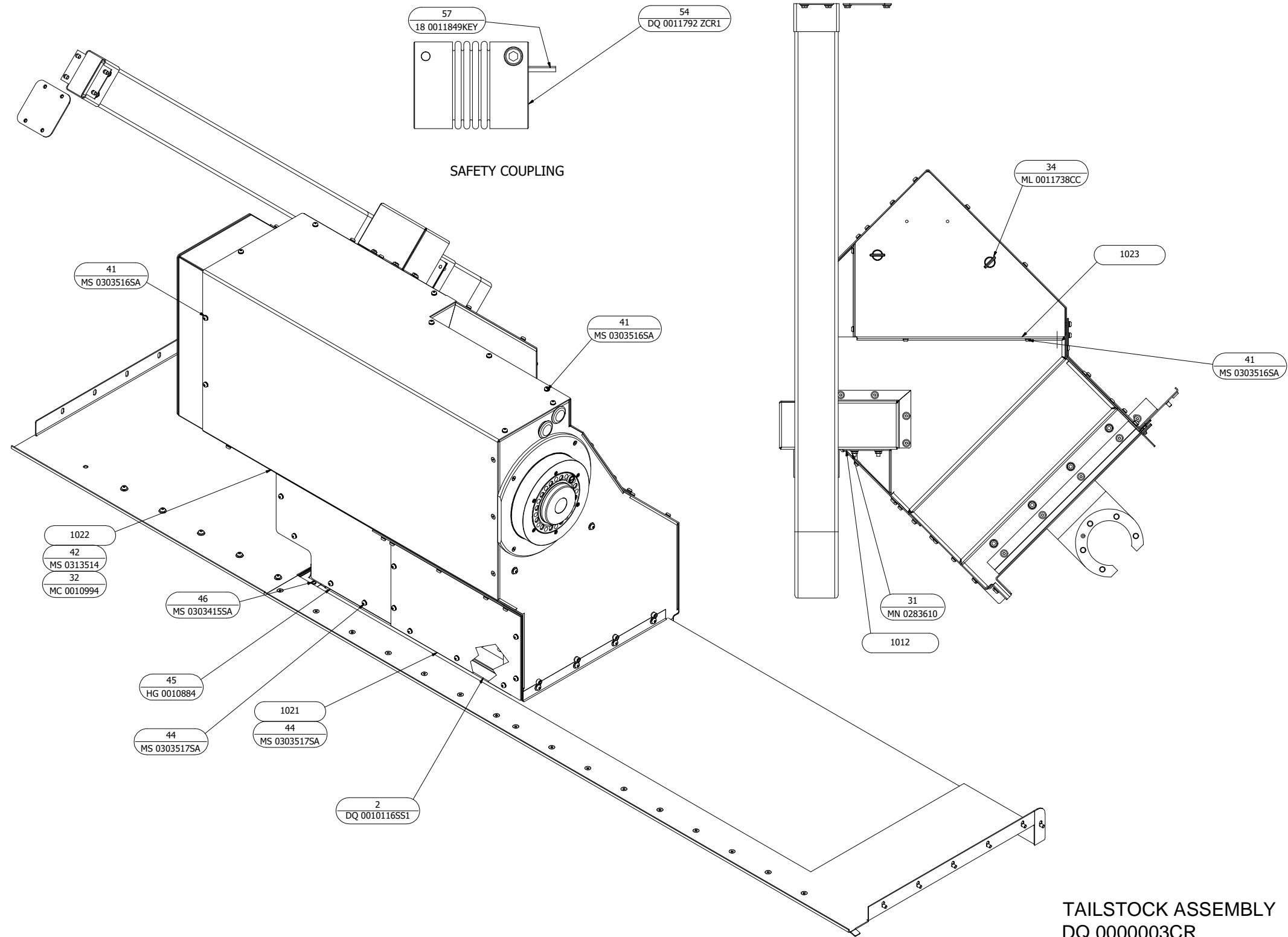
**SPRING EJECTOR, 20C**  
**DQ 0000154**

Tailstock Assembly



TAILSTOCK ASSEMBLY  
DQ 0000003CR



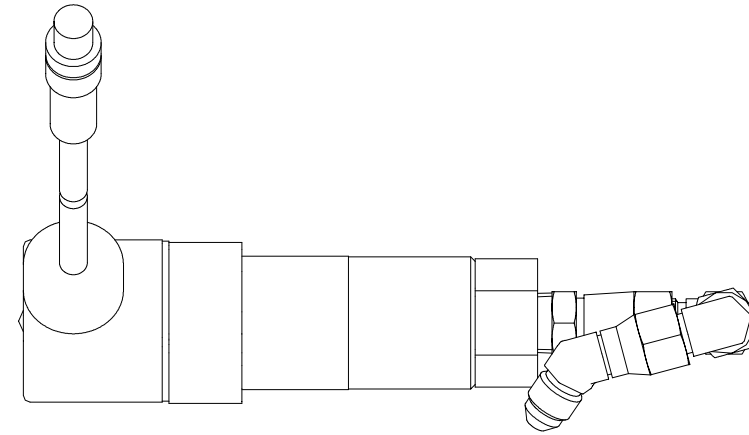
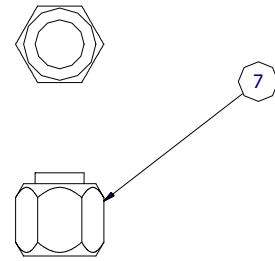


TAILSTOCK ASSEMBLY  
DQ 0000003CR

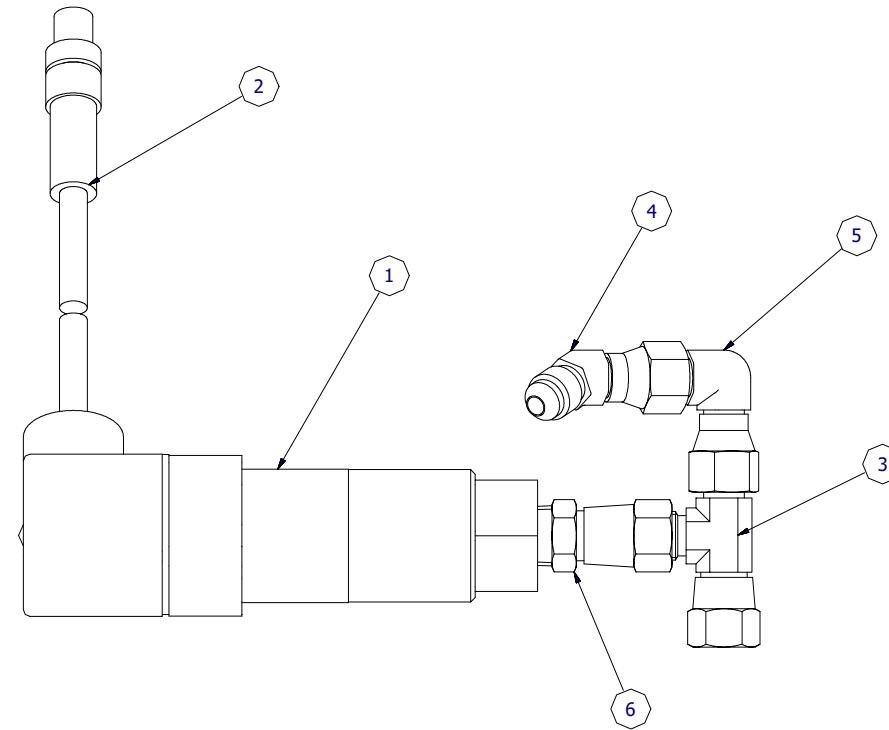
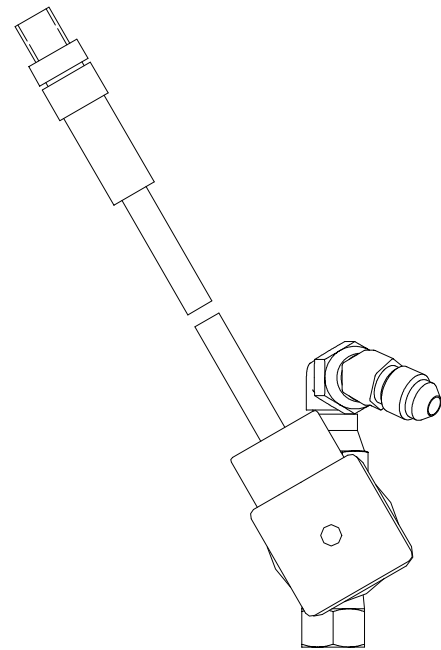


Tailstock Assembly

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0011623SS	1	GORTUBE, 60" SUBSPINDLE	41	MS 0303516SA	51	SCREW ASSEMBLY, BH M5X.8X12	1020	DQ 0010115SS1	-	COVER, SUBSPINDLE FRONT
2	DQ 0010116SS1	1	GASKET, SUBSPINDLE COVER	42	MS 0313514	3	SCREW, FHC, M5 X 0.8 X 10MM	1021	DQ 0010115SS4	-	COVER, SUBSPINDLE UPPER ACCESS
3	CQ 0010116SS2	1	GASKET, SUBSPINDLE COVER	43	MS 0313516	2	SCREW, FLT HD M5X.8X12MM	1022	DQ 0010115SS3	-	COVER, SUBSPINDLE UPPER
4	CQ 0000002TS	1	CARTRIDGE, TAILSTOCK	44	MS 0303517SA	14	SCREW ASSEMBLY, BH M5X.8X16	1023	DQ 0010115SS8	-	COVER, COOLANT CATCHER
5	CQ 0001990ALB	2	BLOCK, ALIGNMENT	45	HG 0010884	.2	ULTRABLUE 81724 GASKET MAKER				
6	MS 0104022	4	SCREW, SHC, M10X1.5X40MM	46	MS 0303415SA	1	SCREW ASSEMBLY, M4X.7X10MM				
7	MW 0194010	6	WASHER, LOCK, M10	47	NC 001088402	.1	THREADLOCKER, LOCTITE 222				
8	CQ 0001834	2	COLLAR, THREADED SHAFT	48	MS 0313616	16	SCREW, FHD SOC, M6 X 1.0 X 12				
9	MS 0574022	2	SCREW, SOC. SET FP M10X1.50X40MM	49	DQ 0011623HB	1	HOSE BAG, GORTUBE				
10	MN 0154010	2	NUT, JAM M10 X 1.5	50	MS 0103818	4	SCREW, SHC, M8X1.25X20MM				
11	MW 0104610 H	5	WASHER, FLAT, HARD, M16	51	MW 0103810	4	WASHER, FLAT, M8				
12	MS 0104628	2	SCREW, SHC, M16X2X70MM	52	MW 0193810	4	WASHER, LOCK, M8				
13	MS 0104227	1	SCREW, SHC, M12X1.75X65MM	53	CD 0004899	2	PIN, PULL OUT DOWEL 1/4 X 5/8				
14	MW 0194210	1	WASHER, LOCK, M12	54	DQ 0011792 ZCR1	1	COUPLING, Z AXIS				
15	MN 0284010	2	NUT, SERRATED HEX FLANGE, M10X1.5	55	DQA0010115TSA	1	SHEETMETAL KIT, TAILSTOCK ASSEMBLY				
16	MS 0104034	2	SCREW, SHC, M10X1.5X120MM	57	18 0011849KEY	1	HALF KEY				
17	CSB0010462 A	1	BRAKE, SPINDLE	58	CQ 0009001SSG	1	SHIM, SUBSPINDLE				
18	MS 0103621	1	SCREW, SHC, M6X1X35MM	59	CL 001197301	1	PLUG, TURN TIGHT EXPANSION				
19	CQ 0010234AP	1	MANIFOLD, AIR PURGE	60	DQ 0011304	1	BUSHING				
20	GT 0011452	2	FLOW CONTROL, 1/8NPT 1/4 TUBE	61	MS 0104630	3	SCREW, SHC, M8X1.25X65MM				
21	FR 000770203	1	CONNECTOR, 90 DEGREE	1000	CQ 0001990SS1	-	BRACKET, SUBSPINDLE FRONT				
22	MW 0103610	1	WASHER, FLAT, M6	1001	DQ 0010115TSWC	-	WAYCOVER, LOWER AXIS FRONT				
23	DQ 0001990TOC	1	RING, COOLANT - TAILSTOCK	1002	ML 000999501	-	SHIM, BRAKE (.029)				
24	QC 0009431SS	1	O-RING	1003	ML 0009995	-	SHIM, BRAKE (.059)				
25	AD 001133804	1	ELBOW, 90 DEGREE	1004	ML 000999502	-	SHIM, BRAKE (.114)				
26	AM 001129504	1	ELBOW, 45 DEGREE SWIVEL NUT	1005	DQ 0010115SS9	-	SHIM, BRAKE (.114)				
27	SB 0010884 S	.1	SEALANT, HYDRAULIC	1006	DQ 0000221GTDB	-	COVER, SUBSPINDLE REAR				
28	HG 0010440	.1	GREASE, ANTI-SIEZE	1007	DQ 0000221GTCV	-	COVER, SUBSPINDLE GORETUBE CHIP				
29	LT 0010884 S	.2	SEALANT, PIPE	1008	DQ 0001990SS2	-	BRACKET, WAYCOVER MOUNTING				
30	SR 0007007GR	276"	TUBING, 1/4" OD FLEXIBLE	1009	DQ 0001990SS3	-	BRACKET, WAYCOVER MOUNTING				
31	MN 0283610	19	NUT, SERRATED HEX FLANGE, M6X1	1010	DQ 0010115RST	-	COVER, STATIONARY REAR				
32	MC 0010994	.3	GREASE, SILICONE	1011	DQ 0010115TSSR	-	WAYCOVER, LOWER AXIS REAR				
33	MS 0303616SA	20	SCREW ASSEMBLY, 6MX1X12MM	1012	DQ 0010115LSCV	-	COVER, LESS GORETUBE				
34	ML 0011738CC	2	LATCH, COMPRESSION	1013	DQ 0001990SS7	-	RETAINER, COOLANT RING				
35	MS 0303515SA	4	SCREW ASSEMBLY, BH M5X.8X10	1014	DQ 0001990TSBC	-	TAILSTOCK COOLANT CATCHER				
36	MS 0303617SA	12	SCREW ASSEMBLY, M6X1X16MM	1015	DQ 0010115SS5	-	COVER, SUBSPINDLE LOWER				
37	MW 0193610	4	WASHER, LOCK, M6	1016	CQ 0010115SS11	-	COVER, SUBSPINDLE LOWER				
38	MS 0103615	4	SCREW, SHC, M6X1X10MM	1017	DQ 0010115SS2	-	COVER, SUBSPINDLE LOWER				
39	MS 0313417	4	SCREW, FHC, M4 X 0.7 X 12MM	1018	DQ 0010115ST	-	COVER, STATIONARY				
40	DQ 0010331P	2	PLUG, 1/2" CONDUIT HOLE	1019	TT 0010234	-	MANIFOLD ASSEMBLY, LUBRICATION				

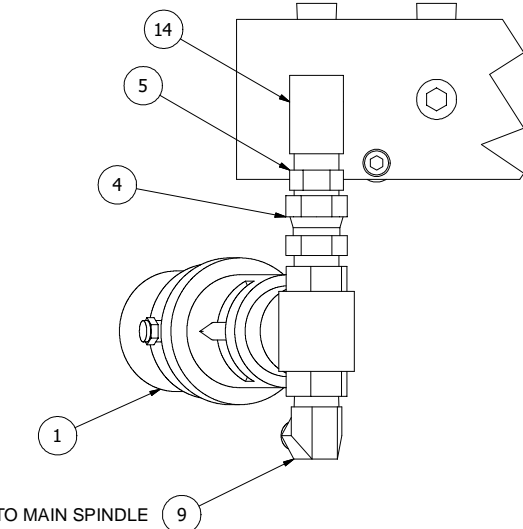
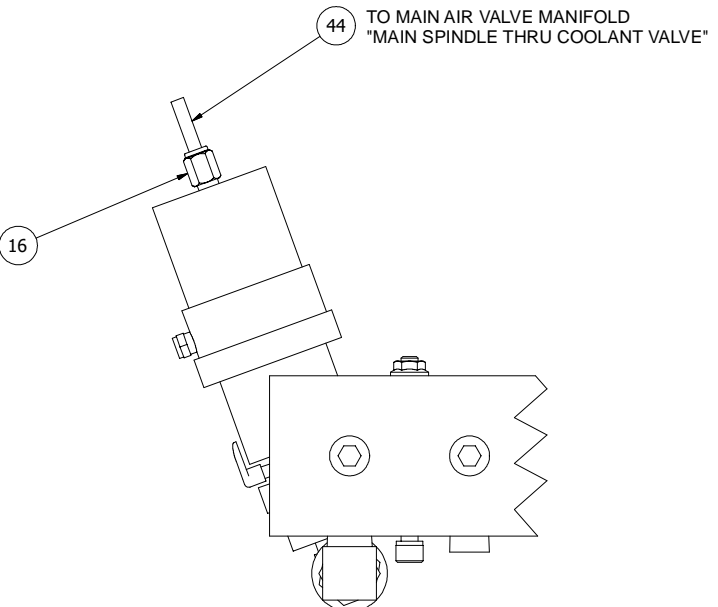
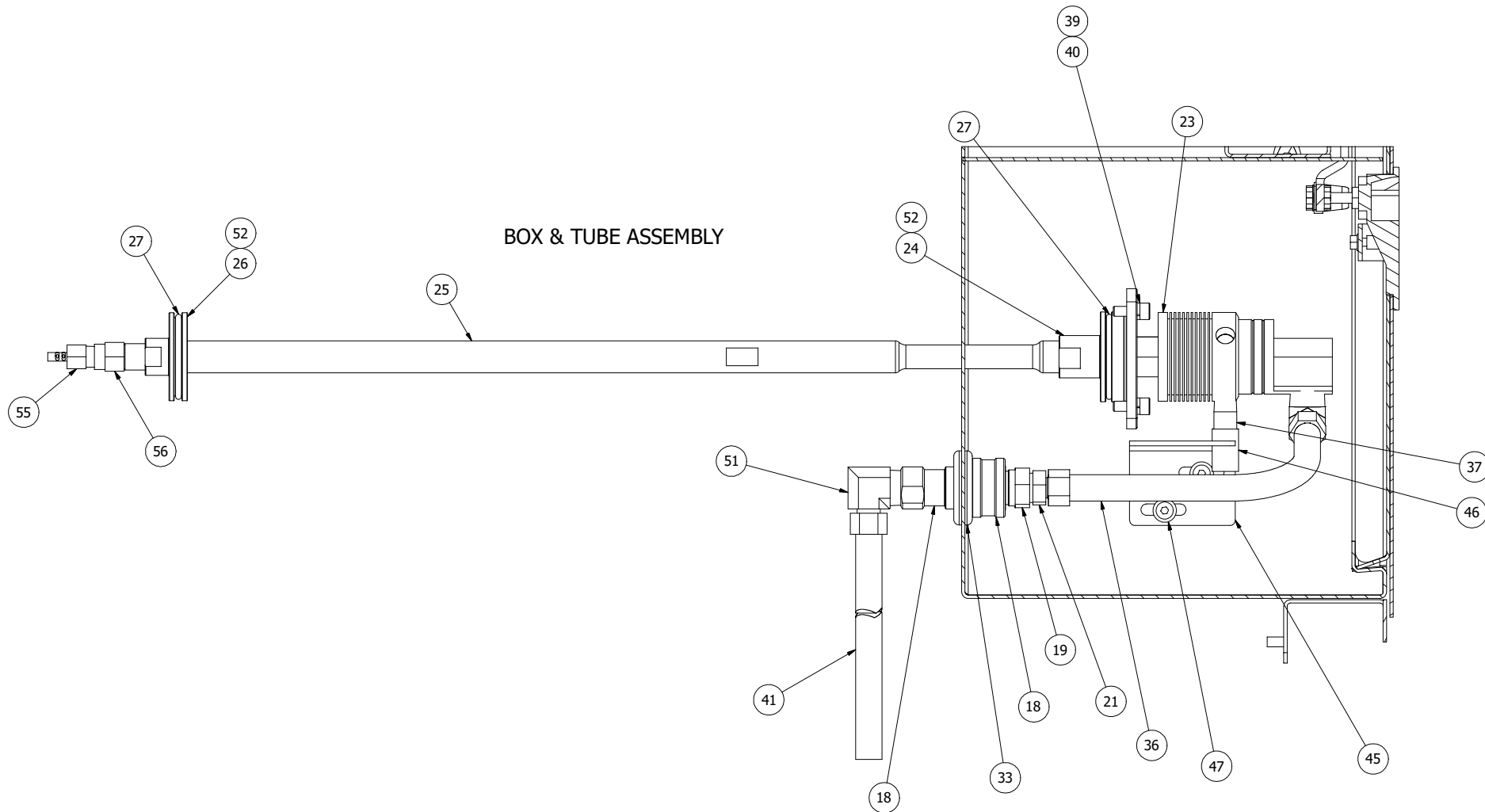


ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0011736	1	PRESSURE SWITCH
2	TT 0003011SA03	1	CABLE ASSEMBLY, 0.3 METER
3	QC 000770301	1	TEE, -4 SWIVEL NUT RUN
4	AM 001129504	1	ELBOW, 45 DEGREE SWIVEL NUT
5	AH 001157201	1	ELBOW, 90 DEG -4 JIC SWIVEL
6	CQ 000770223	1	CONN, -4 JIC X 1/4 NPT STR
7	HS 000770319	1	CAP, -4 JIC



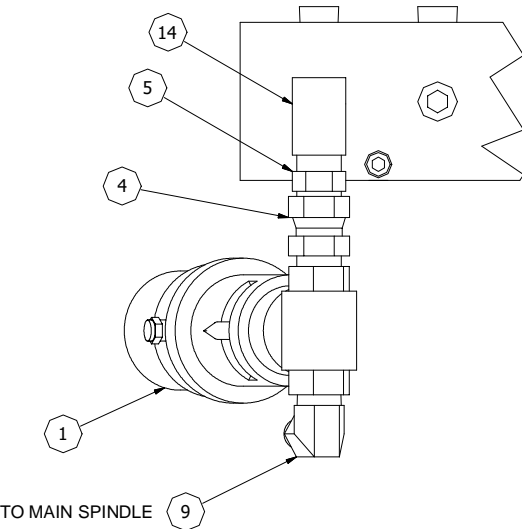
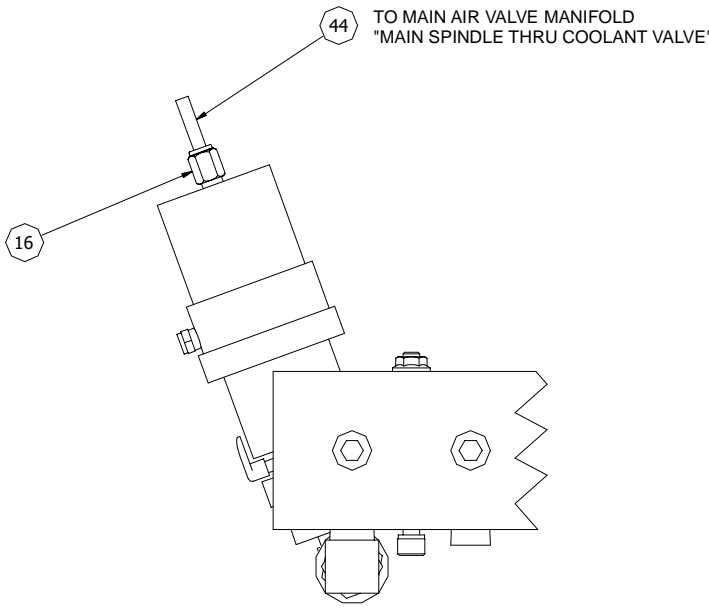
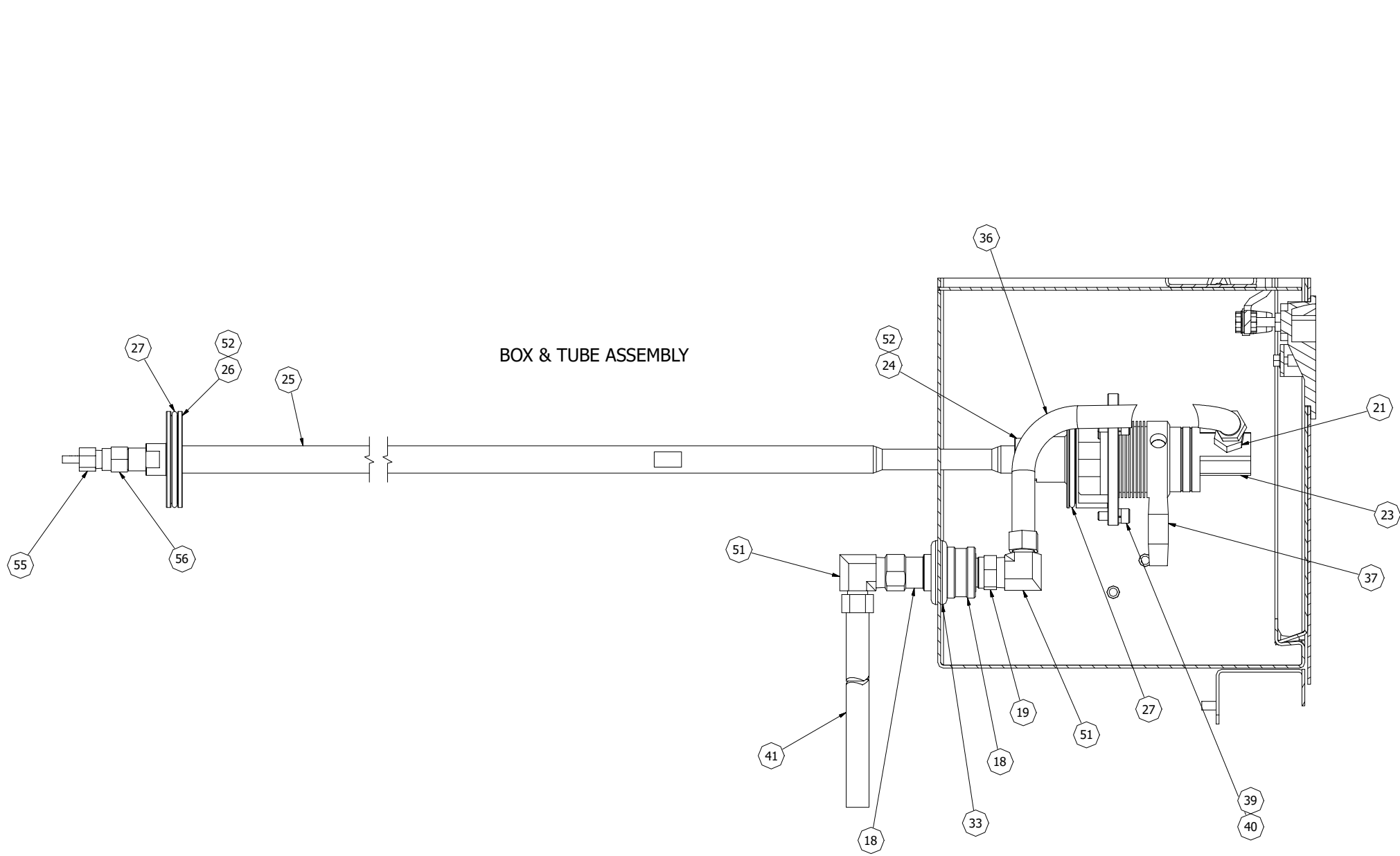
BRAKE SWITCH, TAILSTOCK  
CQA0000133TSBR

Thru-Spindle Coolant, Main Spindle, T-51 Lathe with Sub-Spindle



THRU-SPINDLE COOLANT, MAIN SPINDLE  
 T-51 MACHINE WITH SUB-SPINDLE  
 PART NUMBER: DQ 0003310TSB  
 DRAWING NUMBER: LO 0005308

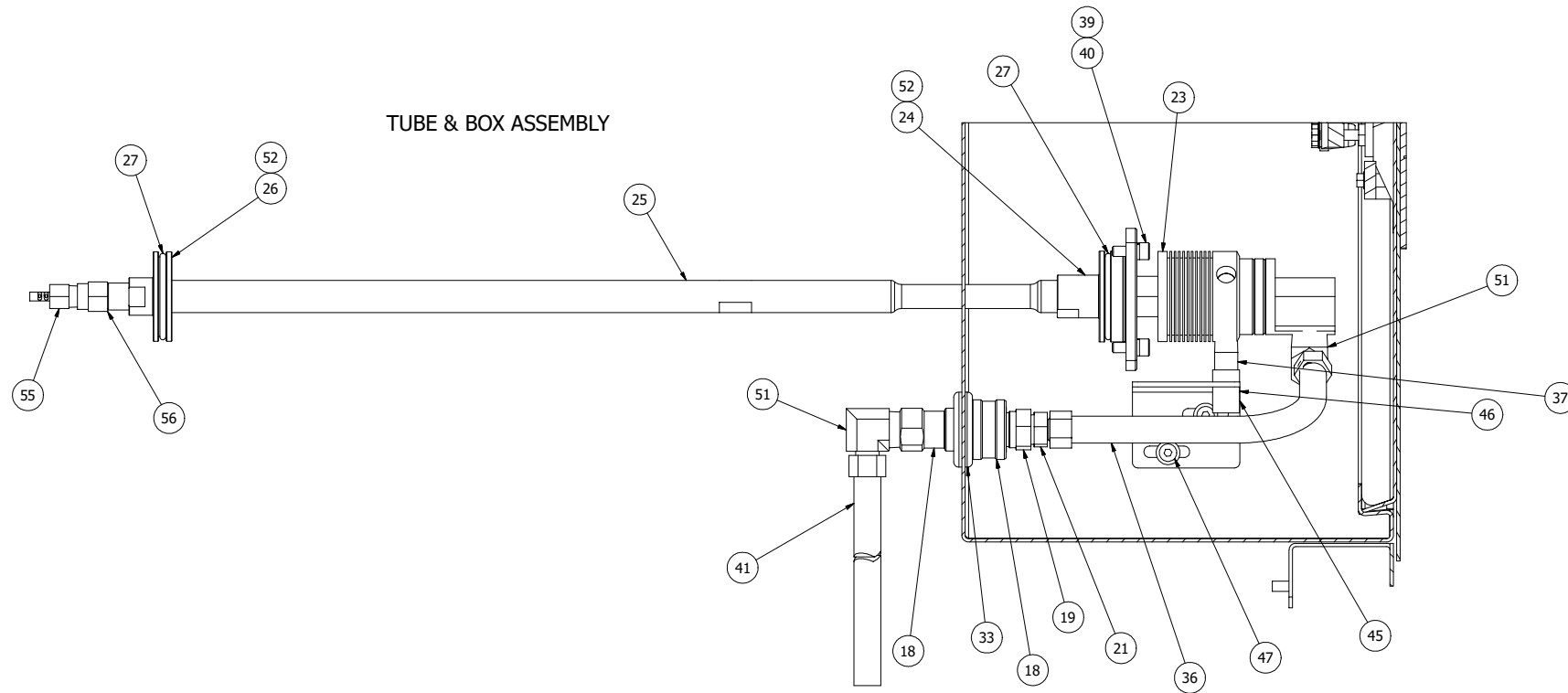
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 0003048APBY	1	VALVE, AIR PILOTED BYPASS
4	QC 000770216	1	ADAPTER, 1/2NPTF-1/2NPTM SWIVEL
5	QC 000770217	1	NIPPLE, 1/2 NPSM
9	ML 000770301	1	ELBOW, 1/2 NPTM X -6 JIC MALE
14	LC 0010110	1	ELBOW, 1/2 NPT STREET
16	FR 000770204	1	CONNECTOR, STRAIGHT MALE
18	QC 001125901	1	COUPLER, QUICK DISCONNECT
19	QC 001125902	1	DISCONNECT, QUICK
21	QC_000770218	1	ADAPTER, 3/8 NPT TO -6 JIC
23	DQ 000770308	1	UNION 90°, ROTARY COOLANT/AIR/DRY
24	DQ 0002883TS	1	BODY, THRU SPINDLE COOLANT
25	CQ 0000731TS	1	TUBE, THRU SPINDLE
26	DQ 0004817	1	BUSHING, END SUPPORT
27	OR 0002832	2	O-RING, 2-224 NITRILE
33	CN 000953205	1	GROMMET, 1" ID
36	DQ 0007007BSM	1	HOSE, MAIN BOX
37	CT 0011092	1	NIPPLE, BRASS, 1/4NPT X 2
39	MW 0193610	3	WASHER, LOCK, M6
40	MS 0103617	3	SCREW, SHC, M6X1X16MM
41	DQ 0007007TSM	1	HOSE, MAIN THRU SPINDLE
43	SB 0010884 S	.11	SEALANT, HYDRAULIC
44	HS 000700747	300"	TUBING, 1/4 OD
45	CQ 0001990ARM	1	BRACKET, MAIN SPINDLE
46	CQ 00070070500	1"	TUBING, 1/2 ID PVC
47	MS 0303616SA	2	SCREW ASSEMBLY, 6MX1X12MM
51	AM 001133816	2	ELBOW, 90 DEGREE MALE 1/2 NPT - 6 JIC
52	NC 0010884	.02	THREADLOCKER, LOCTITE 242
55	DQ 0009467	1	NOZZLE, HOLLOW CONE MISTING
56	DQ 0007702TS	1	FITTING, 1/2-20 MALE TO 1/4 NPT FEMALE



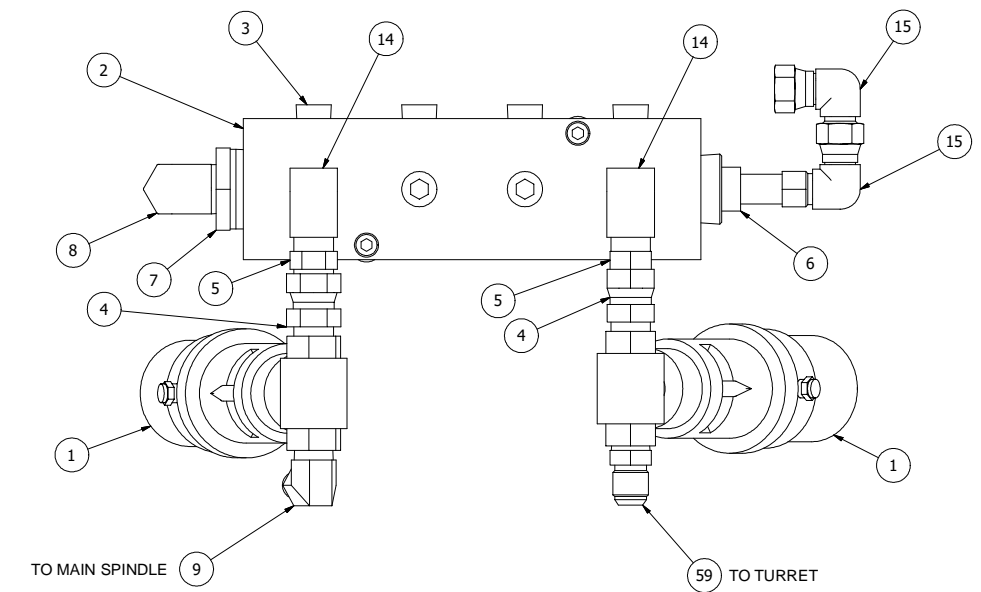
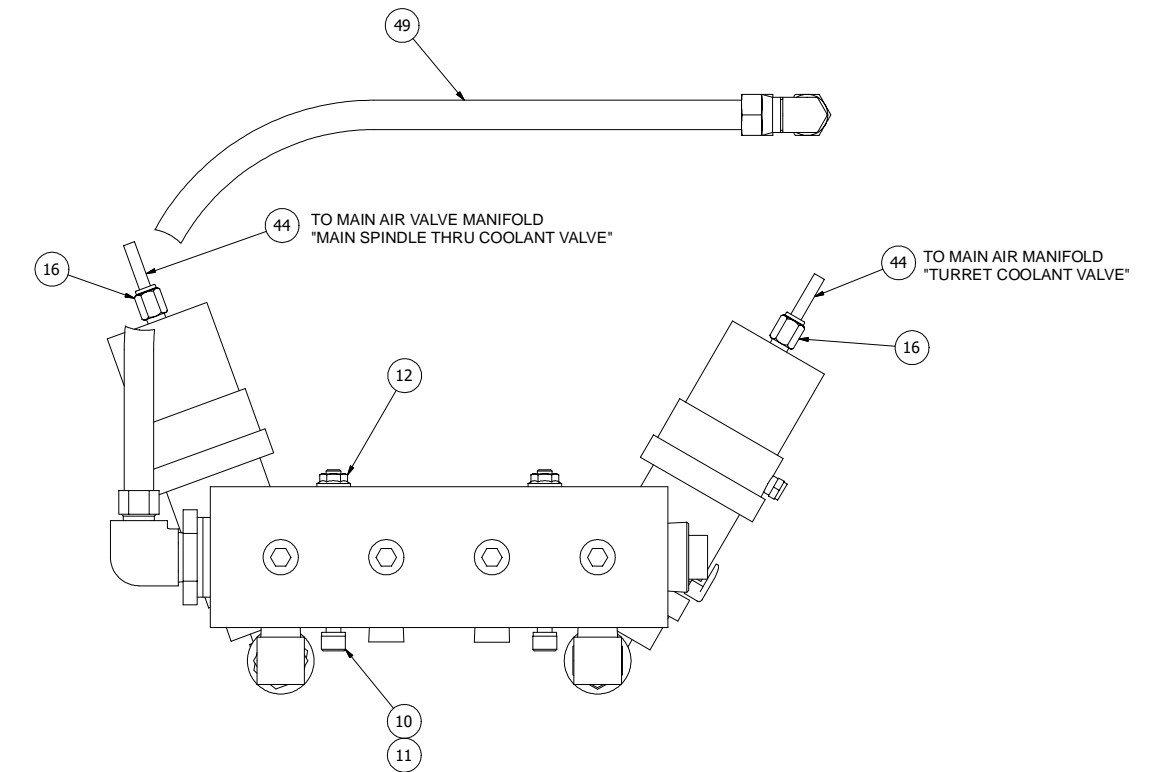
THRU-SPINDLE COOLANT, MAIN SPINDLE  
 T-65 MACHINE WITH SUB-SPINDLE  
 PART NUMBER: EQ 0003310TSB  
 DRAWING NUMBER: LO 0005312

ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 0003048APBY	1	VALVE, AIR PILOTED BYPASS
4	QC 000770216	1	ADAPTER, 1/2NPTF-1/2NPTM SWIVEL
5	QC 000770217	1	NIPPLE, 1/2 NPSM
9	ML 000770301	1	ELBOW, 1/2 NPTM X -6 JIC MALE
14	LC 0010110	1	ELBOW, 1/2 NPT STREET
16	FR 000770204	1	CONNECTOR, STRAIGHT MALE
18	QC 001125901	1	COUPLER, QUICK DISCONNECT
19	QC 001125902	1	DISCONNECT, QUICK
21	QC 000770218	1	ADAPTER, 3/8 NPT TO -6 JIC
23	DQ 000770308	1	UNION 90°, ROTARY COOLANT/AIR/DRY
24	EQ 0002883TSI	1	BODY, THRU SPINDLE COOLANT, T-65
25	EQ 0000731TS	1	TUBE, THRU SPINDLE
26	EQ 0004817	1	BUSHING, END SUPPORT
27	OR 0003842	2	O-RING, 2-229 NITRILE
33	CN 000953205	1	GROMMET, 1" ID
36	CQ 0007007BSS	1	HOSE, SUB BOX
37	CT 0011092	1	NIPPLE, BRASS, 1/4NPT X 2
39	MW 0193610	3	WASHER, LOCK, M6
40	MS 0103617	3	SCREW, SHC, M6X1X16MM
41	DQ 0007007TSM	1	HOSE, MAIN THRU SPINDLE
43	SB 0010884 S	.11	SEALANT, HYDRAULIC
44	HS 000700747	300"	TUBING, 1/4 OD
51	AM 001133816	2	ELBOW 90 DEGREE MALE 1/2 NPT - 6 JIC
52	NC 0010884	.02	THREADLOCKER, LOCTITE 242
55	DQ 0009467	1	NOZZLE, HOLLOW CONE MISTING
56	DQ 0007702TS	1	FITTING, 1/2-20 MALE TO 1/4 NPT FEMALE

Thru-Spindle Coolant, Main Spindle, T-51 Lathe without Sub-Spindle



TUBE & BOX ASSEMBLY



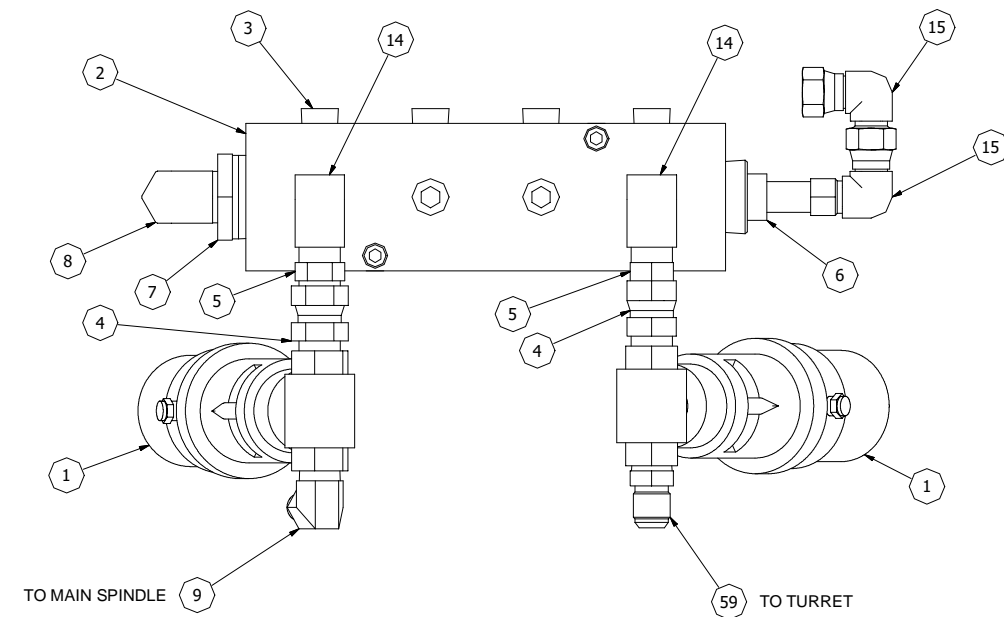
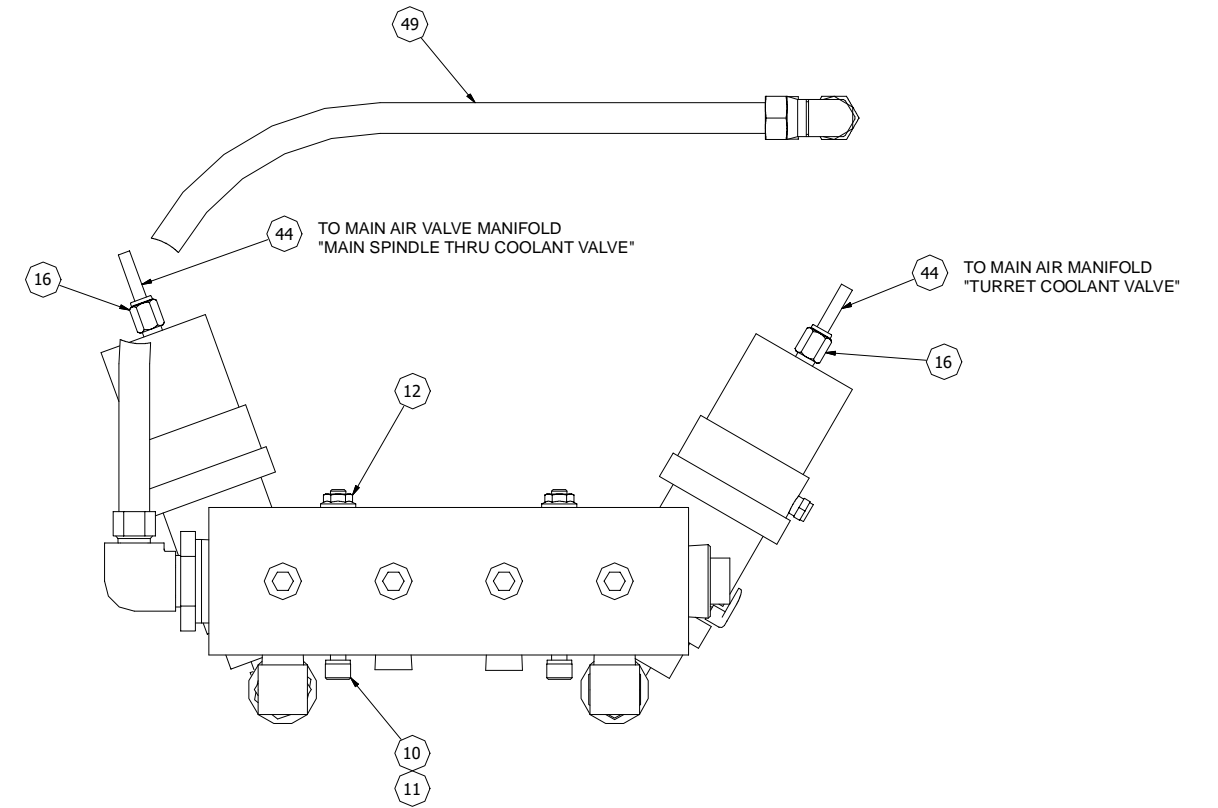
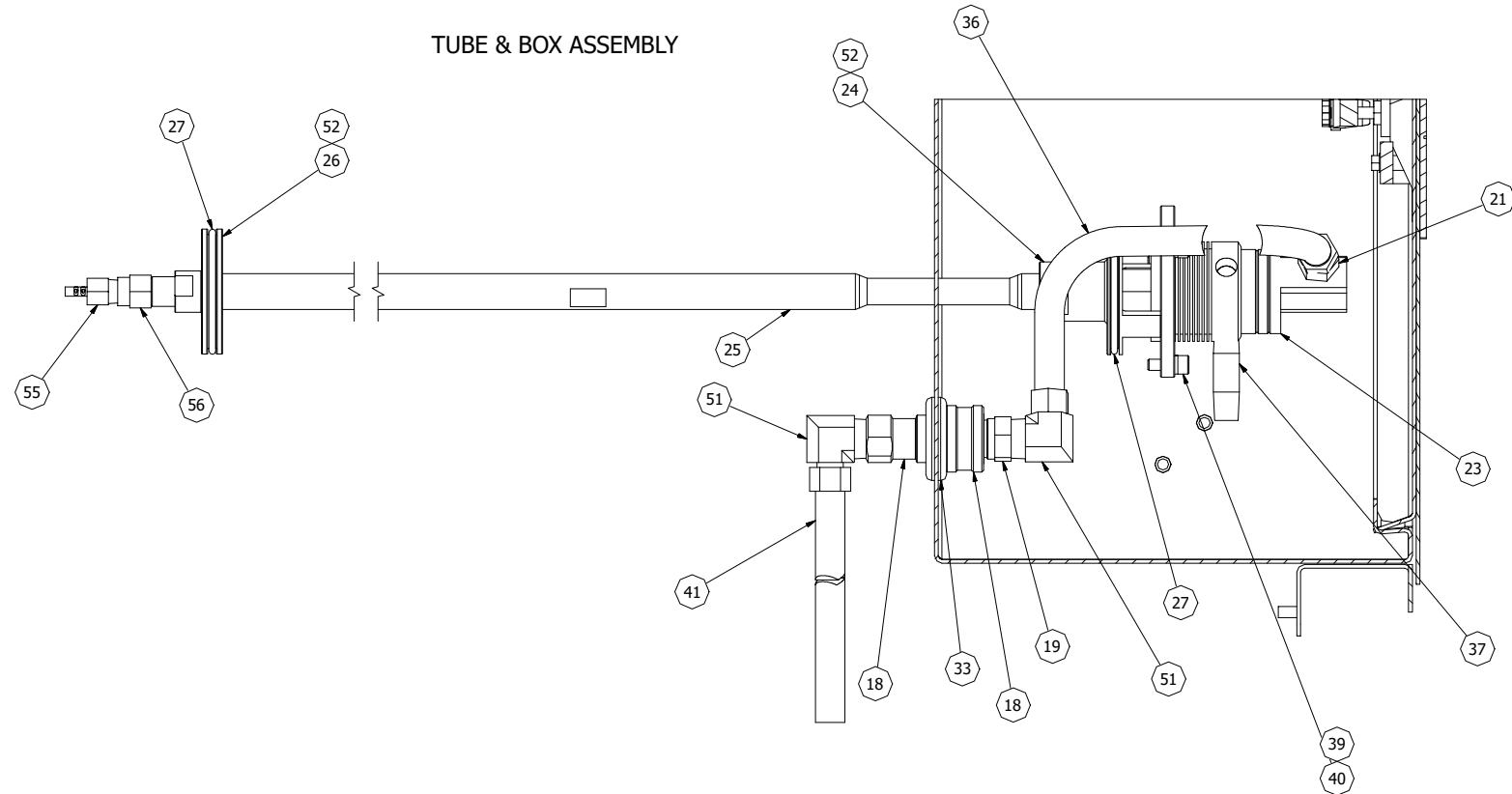
THRU-SPINDLE COOLANT, MAIN SPINDLE  
 T-51 MACHINE WITHOUT SUB-SPINDLE  
 PART NUMBER: DQ 0003310TSM  
 DRAWING NUMBER: LO 0005307

Thru-Spindle Coolant, Main Spindle, T-51 Lathe without Sub-Spindle

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 0003048APBY	2	VALVE, AIR PILOTED BYPASS	51	AM 001133816	2	ELBOW 90 DEGREE MALE 1/2 NPT - 6 JIC
2	LP 001023401	1	MANIFOLD, COOLANT	52	NC 0010884	.04	THREADLOCKER, LOCTITE 242
3	TM 0006992	6	PIPE PLUG, 1/2 NPT	53	CQ 00014678C	1	PIPE CAP
4	QC 000770216	2	ADAPTER, 1/2NPTF-1/2NPTM SWIVEL	54	CQ 0007007HPTS	1	HOSE, HP THRU SPINDLE
5	QC 000770217	2	NIPPLE, 1/2 NPSM	55	DQ 0009467	1	NOZZLE, HOLLOW CONE MISTING
6	LP 000770303	1	PLUG, 1-1/4" NPTF, SQUARE HEAD	56	DQ 0007702TS	1	FITTING, 1/2-20 MALE TO 1/4 NPT FEMALE
7	HG 0009424RBG	1	BUSHING REDUCER 1-1/4 TO 3/4" NPT	57	CQ 000770214	2	REDUCER, ONE TOUCH 5/16-1/4
8	CQ 000770201	1	ELBOW, NPT-M	59	SN 000770208	1	ADAPTER, 1/8 NPT TO -8 JIC
9	ML 000770301	1	ELBOW, 1/2 NPTM X -6 JIC MALE				
10	MS 0103831	2	SCREW, SHC, M8X1.25X90MM				
11	MW 0193810	2	WASHER, LOCK, M8				
12	MN 0283810	2	NUT, SERRATED HEX FLANGE, M8X1.25				
13	LC 000770228	1	ELBOW, 90 DEG -8 JIC x 1/2 NPT				
14	LC 0010110	2	ELBOW, 1/2 NPT STREET				
15	CS 000838406	2	ELBOW, 90 DEG -8 SWIVEL				
16	FR 000770204	2	CONNECTOR, STRAIGHT MALE				
18	QC 001125901	1	COUPLER, QUICK DISCONNECT				
19	QC 001125902	1	DISCONNECT, QUICK				
21	QC_000770218	1	ADAPTER, 3/8 NPT TO -6 JIC				
23	DQ 000770308	1	UNION 90°, ROTARY COOLANT/AIR/DRY				
24	DQ 0002883TS	1	BODY, THRU SPINDLE COOLANT				
25	CQ 0000731TS	1	TUBE, THRU SPINDLE				
26	DQ 0004817	1	BUSHING, END SUPPORT				
27	OR 0002832	2	O-RING, 2-224 NITRILE				
33	CN 000953205	1	GROMMET, 1" ID				
36	DQ 0007007BSM	1	HOSE, MAIN BOX				
37	CT 0011092	1	NIPPLE, BRASS, 1/4NPT X 2				
39	MW 0193610	3	WASHER, LOCK, M6				
40	MS 0103617	3	SCREW, SHC, M6X1X16MM				
41	DQ 0007007TSM	1	HOSE, MAIN THRU SPINDLE				
43	SB 0010884 S	.22	SEALANT, HYDRAULIC				
44	HS 000700747	600"	TUBING, 1/4 OD				
45	CQ 0001990ARM	1	BRACKET, MAIN SPINDLE				
46	CQ 00070070500	1"	TUBING, 1/2 ID PVC				
47	MS 0303616SA	2	SCREW ASSEMBLY, 6MX1X12MM				
49	CQ 0007007TSF	1	HOSE, THRU SPINDLE FEED				
50	CQA0003048SV1	1	VALVE, SV2A00 AIR				

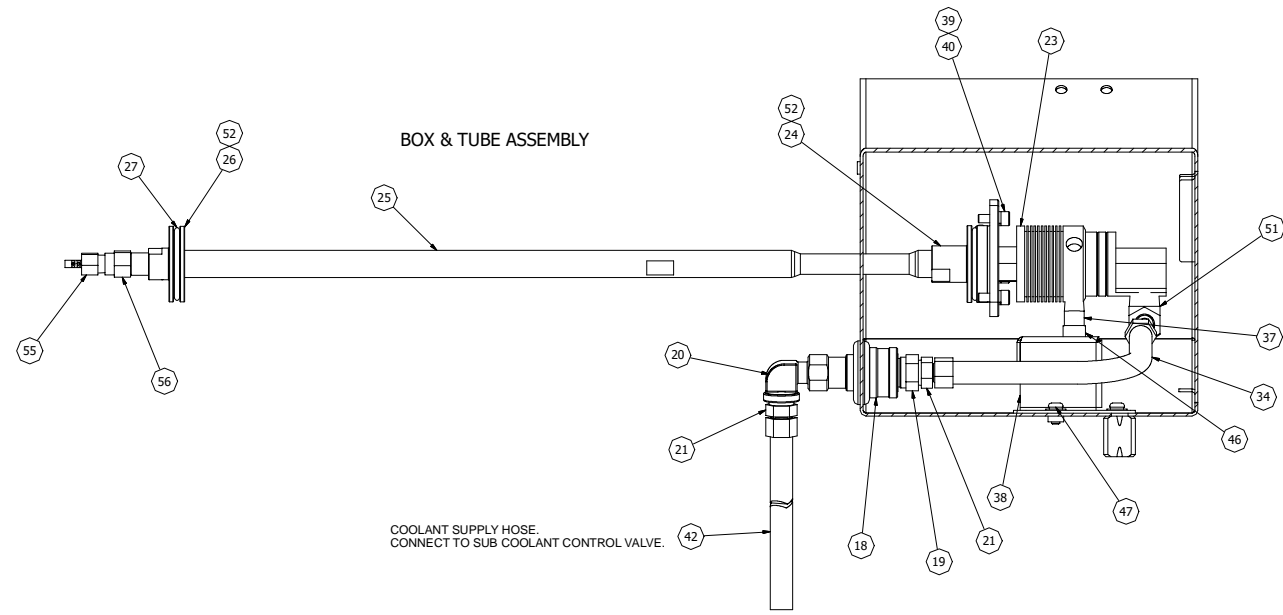


Thru-Spindle Coolant, Main Spindle, T-65 Lathe without Sub-Spindle



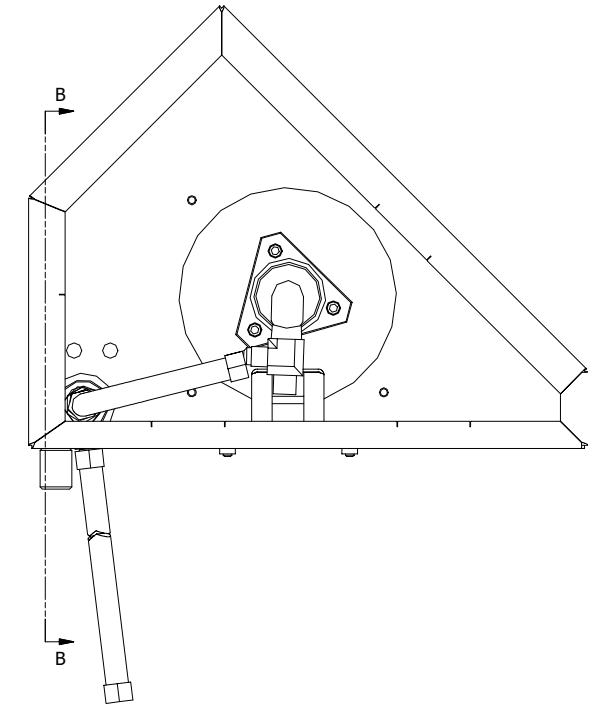
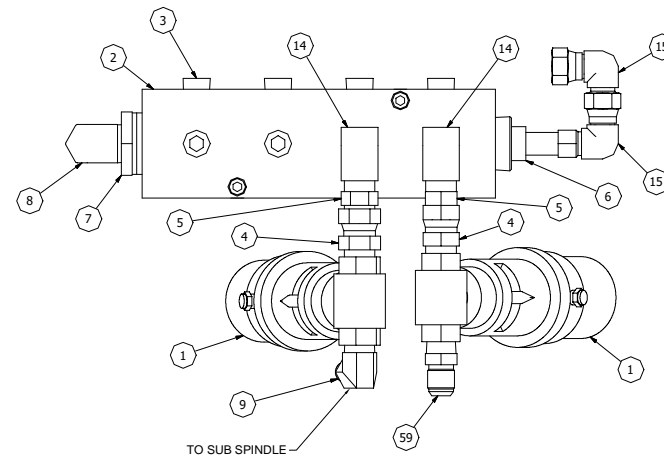
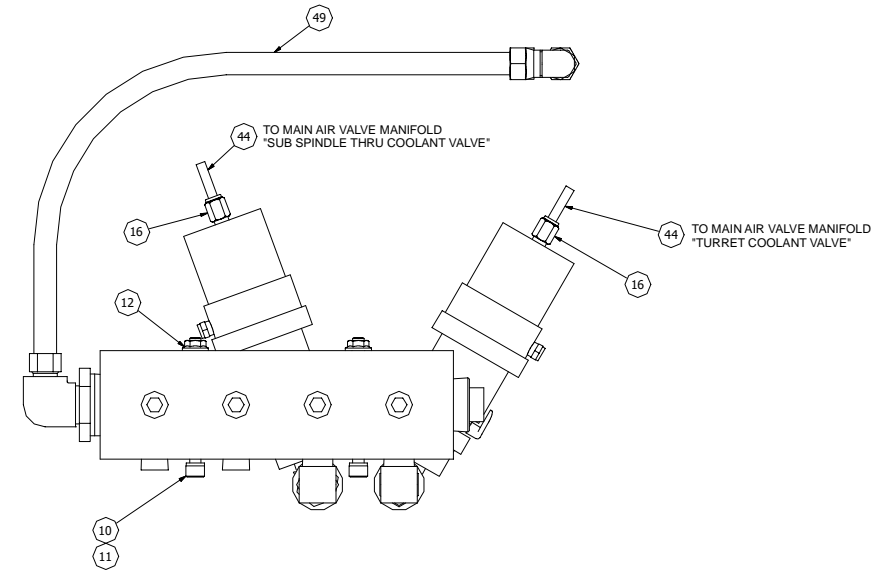
THRU-SPINDLE COOLANT, MAIN SPINDLE  
T-65 MACHINE WITHOUT SUB-SPINDLE  
PART NUMBER: EQ 0003310TSM  
DRAWING NUMBER: LO 0005313

ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 0003048APBY	2	VALVE, AIR PILOTED BYPASS
2	LP 001023401	1	MANIFOLD, COOLANT
3	TM 0006992	6	PIPE PLUG, 1/2 NPT
4	QC 000770216	2	ADAPTER, 1/2NPTF-1/2NPTM SWIVEL
5	QC 000770217	2	NIPPLE, 1/2 NPSM
6	LP 000770303	1	PLUG, 1-1/4" NPTF, SQUARE HEAD
7	HG 0009424RBG	1	BUSHING REDUCER 1-1/4 TO 3/4" NPT
8	CQ 000770201	1	ELBOW, NPT-M
9	ML 000770301	1	ELBOW, 1/2 NPTM X -6 JIC MALE
10	MS 0103831	2	SCREW, SHC, M8X1.25X90MM
11	MW 0193810	2	WASHER, LOCK, M8
12	MN 0283810	2	NUT, SERRATED HEX FLANGE, M8X1.25
13	LC 000770228	1	ELBOW, 90 DEG -8 JIC x 1/2 NPT
14	LC 0010110	2	ELBOW, 1/2 NPT STREET
15	CS 000838406	2	ELBOW, 90 DEG -8 SWIVEL
16	FR 000770204	2	CONNECTOR, STRAIGHT MALE
18	QC 001125901	1	COUPLER, QUICK DISCONNECT
19	QC 001125902	1	DISCONNECT, QUICK
21	QC_000770218	1	ADAPTER, 3/8 NPT TO -6 JIC
23	DQ 000770308	1	UNION 90°, ROTARY COOLANT/AIR/DRY
24	EQ 0002883TSI	1	BODY, THRU SPINDLE COOLANT, T-65
25	EQ 0000731TS	1	TUBE, THRU SPINDLE
26	EQ 0004817	1	BUSHING, END SUPPORT
27	OR 0003842	2	O-RING, 2-229 NITRILE
33	CN 000953205	1	GROMMET, 1" ID
36	CQ 0007007BSS	1	HOSE, SUB BOX
37	CT 0011092	1	NIPPLE, BRASS, 1/4NPT X 2
39	MW 0193610	3	WASHER, LOCK, M6
40	MS 0103617	3	SCREW, SHC, M6X1X16MM
41	DQ 0007007TSM	1	HOSE, MAIN THRU SPINDLE
43	SB 0010884 S	.22	SEALANT, HYDRAULIC
44	HS 000700747	600"	TUBING, 1/4 OD
49	CQ 0007007TSF	1	HOSE, THRU SPINDLE FEED
50	CQA0003048SV1	1	VALVE, SV2A00 AIR
51	AM 001133816	2	ELBOW 90 DEGREE MALE 1/2 NPT - 6 JIC
52	NC 0010884	.04	THREADLOCKER, LOCTITE 242
53	CQ 00014678C	1	PIPE CAP
54	CQ 0007007HPTS	1	HOSE, HP THRU SPINDLE
55	DQ 0009467	1	NOZZLE, HOLLOW CONE MISTING
56	DQ 0007702TS	1	FITTING, 1/2-20 MALE TO 1/4 NPT FEMALE
57	CQ 000770214	2	REDUCER, ONE TOUCH 5/16-1/4
59	SN 000770208	1	ADAPTER, 1/8 NPT TO -8 JIC



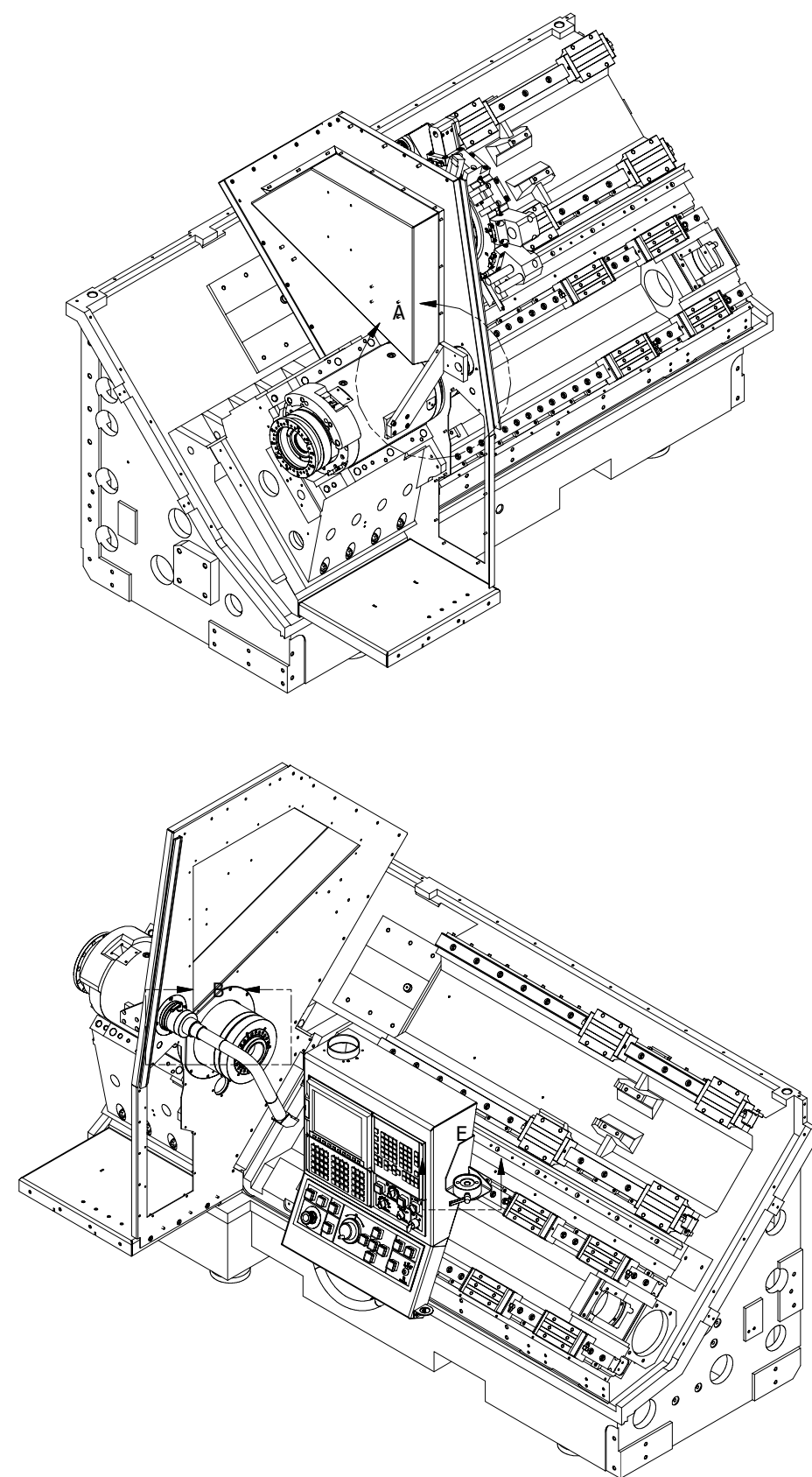
BOX & TUBE ASSEMBLY

COOLANT SUPPLY HOSE  
CONNECT TO SUB COOLANT CONTROL VALVE.

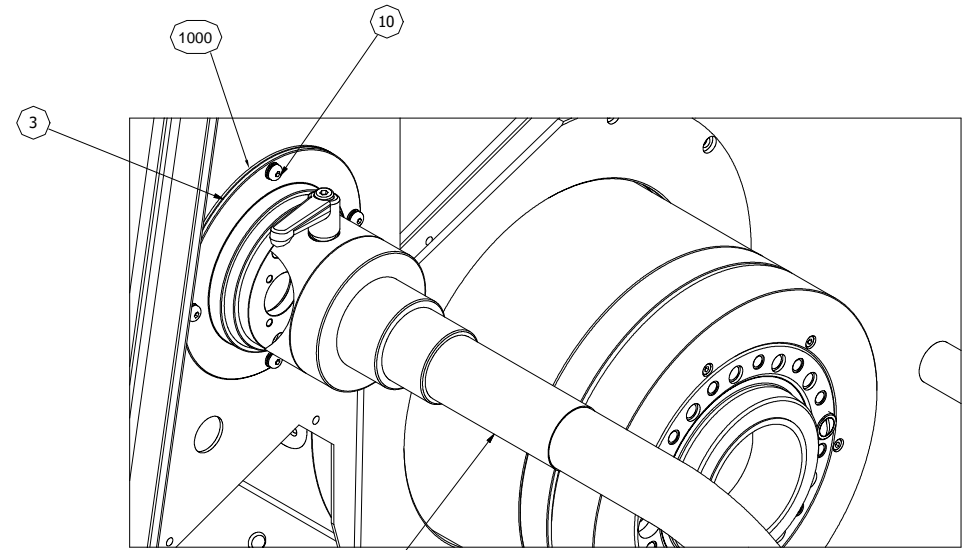
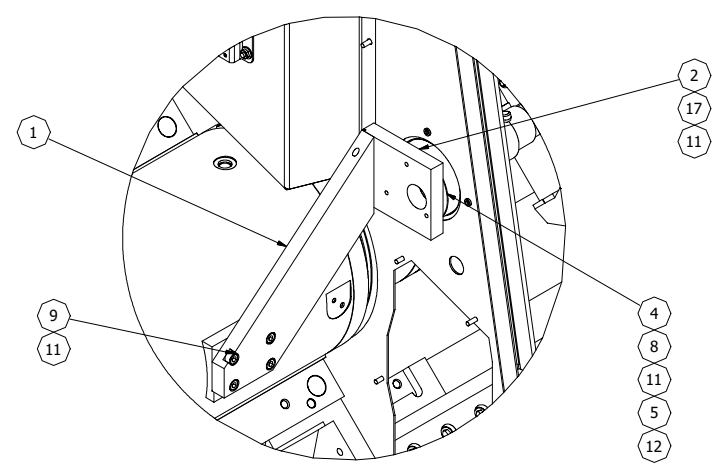


THRU-SPINDLE COOLANT, SUB-SPINDLE  
PART NUMBER: DQ 0003310TSS  
DRAWING NUMBER: LO 0005306

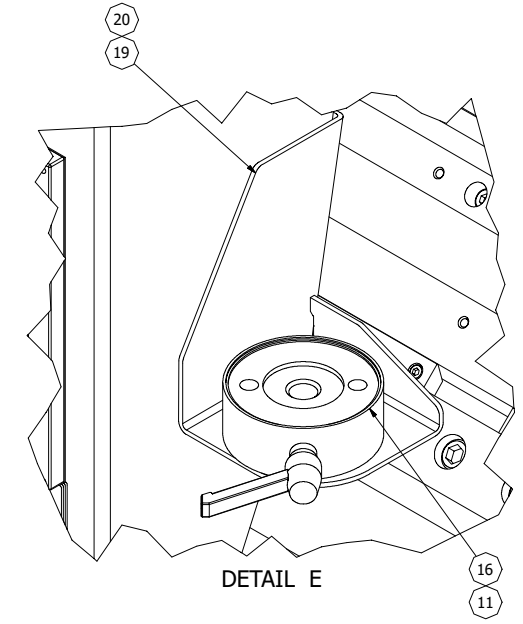
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 0003048APBY	2	VALVE, AIR PILOTED BYPASS
2	LP 001023401	1	MANIFOLD, COOLANT
3	TM 0006992	6	PIPE PLUG, 1/2 NPT
4	QC 000770216	2	ADAPTER, 1/2NPTF-1/2NPTM SWIVEL
5	QC 000770217	2	NIPPLE, 1/2NPSM
6	LP 000770303	1	PLUG, 1-1/4" NPTF, SQUARE HEAD
7	HG 0009424RBG	1	BUSHING REDUCER 1-1/4 TO 3/4" NPT
8	CQ 000770201	1	ELBOW, NPT-M
9	ML 000770301	1	ELBOW, 1/2 NPTM X -6 JIC MALE
10	MS 0103831	2	SCREW, SHC, M8X1.25X90MM
11	MW 0193810	2	WASHER, LOCK, M8
12	MN 0283810	2	NUT, SERRATED HEX FLANGE, M8X1.25
14	LC 0010110	2	ELBOW, 1/2 NPT STREET
15	CS 000838406	2	ELBOW, 90 DEG -8 SWIVEL
16	FR 000770204	2	CONNECTOR, STRAIGHT MALE
18	QC 001125901	1	COUPLER, QUICK DISCONNECT
19	QC 001125902	1	DISCONNECT, QUICK
20	SB 0003522	1	ELBOW, 3/8NPT STREET
21	QC_000770218	2	ADAPTER, 3/8 NPT TO -6 JIC
23	DQ 000770308	1	UNION 90°, ROTARY COOLANT/AIR/DRY
24	DQ 0002883TS	1	BODY, THRU SPINDLE COOLANT
25	CQ 0000731TS	1	TUBE, THRU SPINDLE
26	DQ 0004817	1	BUSHING, END SUPPORT
27	OR 0002832	2	O-RING, 2-224 NITRILE
33	CN 000953205	1	GROMMET, 1" ID
34	CQ 0007007BSS	1	HOSE, SUB BOX
37	CT 0011092	1	NIPPLE, BRASS, 1/4NPT X 2
38	DQ 0000221TSB	1	BRACKET, ANTI ROTATION
39	MW 0193610	3	WASHER, LOCK, M6
40	MS 0103617	3	SCREW, SHC, M6X1X16MM
42	DQ 0007007TSS	1	HOSE, SUB THRU SPINDLE
43	SB 0010884 S	.23	SEALANT, HYDRAULIC
44	HS 000700747	600"	TUBING, 1/4 OD
46	CQ 00070070500	1"	TUBING, 1/2 ID PVC
47	MS 0303616SA	4	SCREW ASSEMBLY, 6MX1X12MM
49	CQ 0007007TSF	1	HOSE, THRU SPINDLE FEED
50	CQA0003048SV1	2	VALVE, SV2A00 AIR
51	AM 001133816	1	ELBOW, 90 DEGREE MALE 1/2 NPT - 6 JIC
52	NC 0010884	.1	THREADLOCKER, LOCTITE 242
55	DQ 0009467	1	NOZZLE, HOLLOW CONE MISTING
56	DQ 0007702TS	1	FITTING, 1/2-20 MALE TO 1/4 NPT FEMALE
57	CQ 000770214	2	REDUCER, ONE TOUCH 5/16-1/4
58	CQ 000770222	1	PLUG, 5/16 TUBE FITTING
59	SN 000770208	1	ADAPTER, 1/8 NPT TO -8 JIC



DETAIL A



DETAIL B

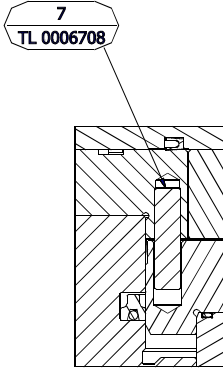


DETAIL E

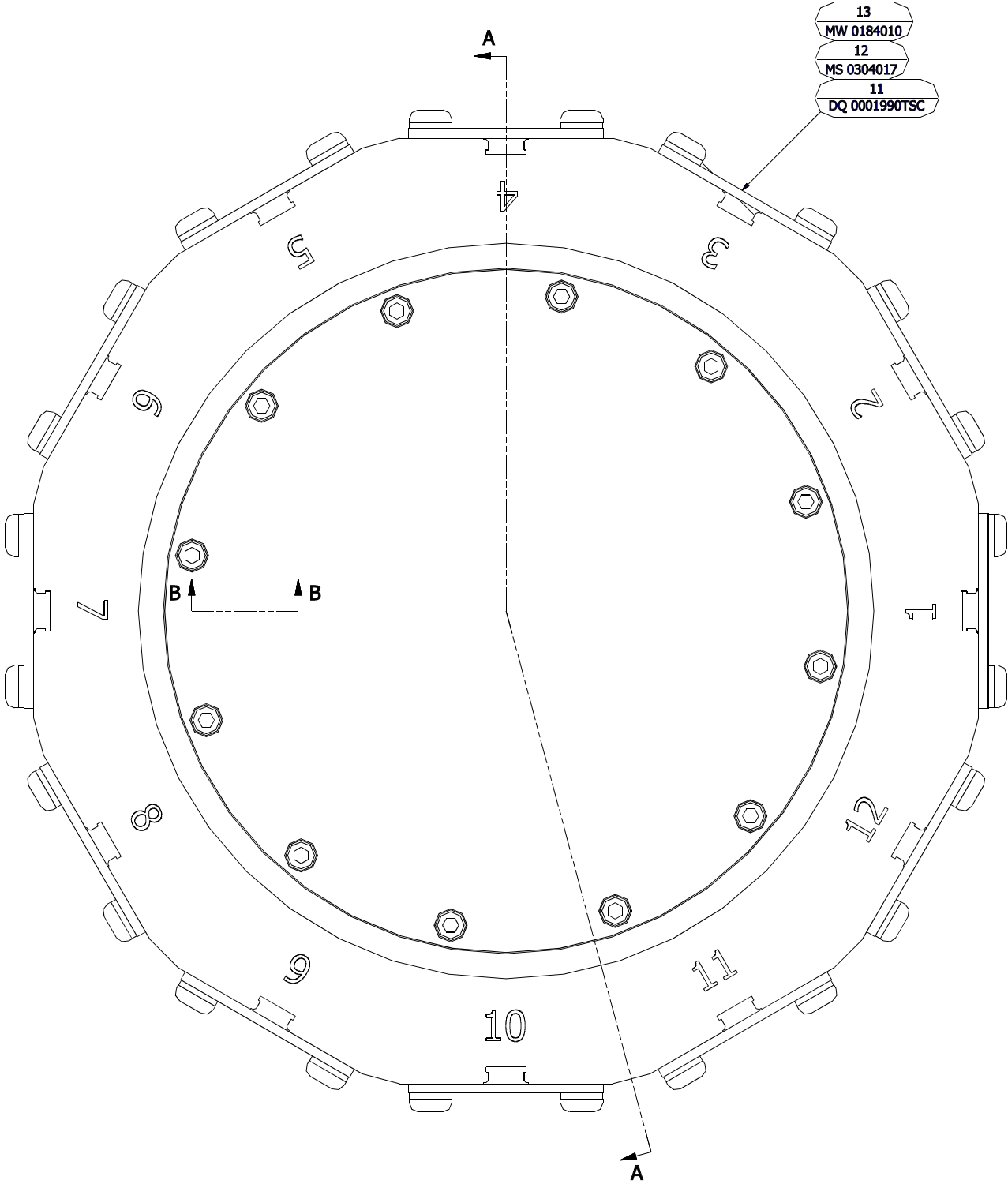
MARPOSS TOOL PROBE ASSEMBLY  
PART NUMBER: DQ 0002536MPM  
DRAWING NUMBER: LO 0005297

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 001193102	1	PLATE, TOOL PROBE MOUNT
2	DQ 001193101	1	PLATE, TOOL PROBE
3	ML 000253603	1	RING, SEAL
4	DQ 000253601	1	SPACER, TOOL PROBE
5	OR 0005258	1	O-RING
8	MS 0103622	3	SCREW, SHC, M6X1X40MM
9	MS 0103819	4	SCREW, SHC, M8X1.25X25MM
10	MS 0303516SA	4	SCREW, BH M5X.8X12 ASSY
11	NC 0010884	.01	THREADLOCKER, LOCTITE 242
12	CS 0010994	.01	SEALANT
14	DQ 00030101590	1	CABLE, 7102CBL
16	CQ 0002536MPB	1	BASE, MARPOSS HOUSING
17	MS 0103818	3	SCREW, SHC, M8X1.25X20MM
18	DQ 0002536MP	1	PROBE, MARPOSS TOOL
19	CQ 0002536MPB3	1	BRACKET, DOCKING BASE
20	MS 0303617SA	2	SCREW ASSEMBLY, M6X1X16MM
1000	ML 0010116LTP	-	GASKET

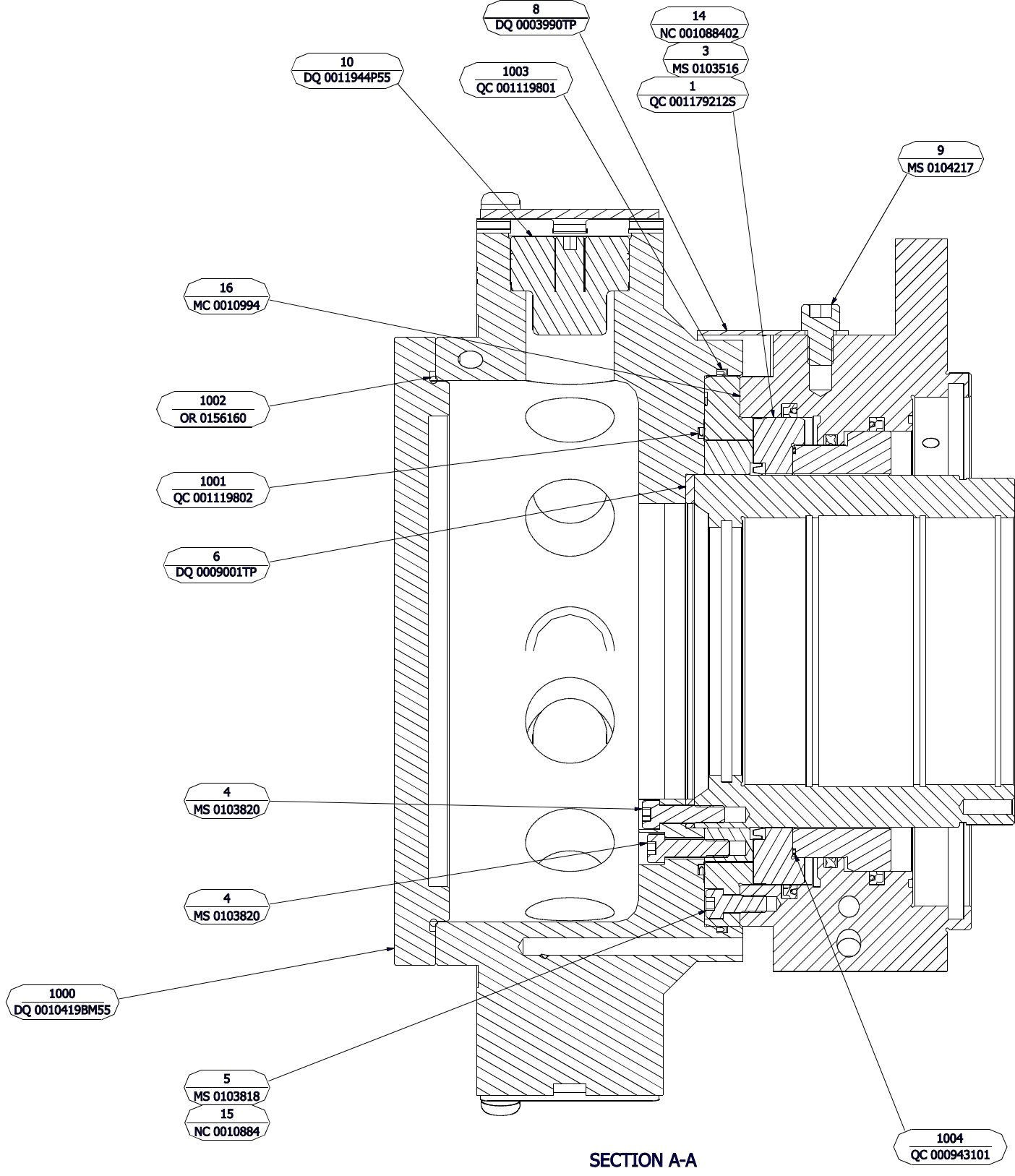
Turret Top Plate, BMT 55, Machine without Y-Axis or Live Tooling



SECTION B-B



- 13 MW 0184010
- 12 MS 0304017
- 11 DQ 0001990TSC



- 1000 DQ 0010419BM55

- 5 MS 0103818
- 15 NC 0010884

- 4 MS 0103820

- 4 MS 0103820

- 6 DQ 0009001TP

- 1001 QC 001119802

- 1002 OR 0156160

- 16 MC 0010994

- 10 DQ 0011944P55

- 1003 QC 001119801

- 8 DQ 0003990TP

- 14 NC 001088402

- 3 MS 0103516

- 1 QC 001179212S

- 9 MS 0104217

- 1004 QC 000943101

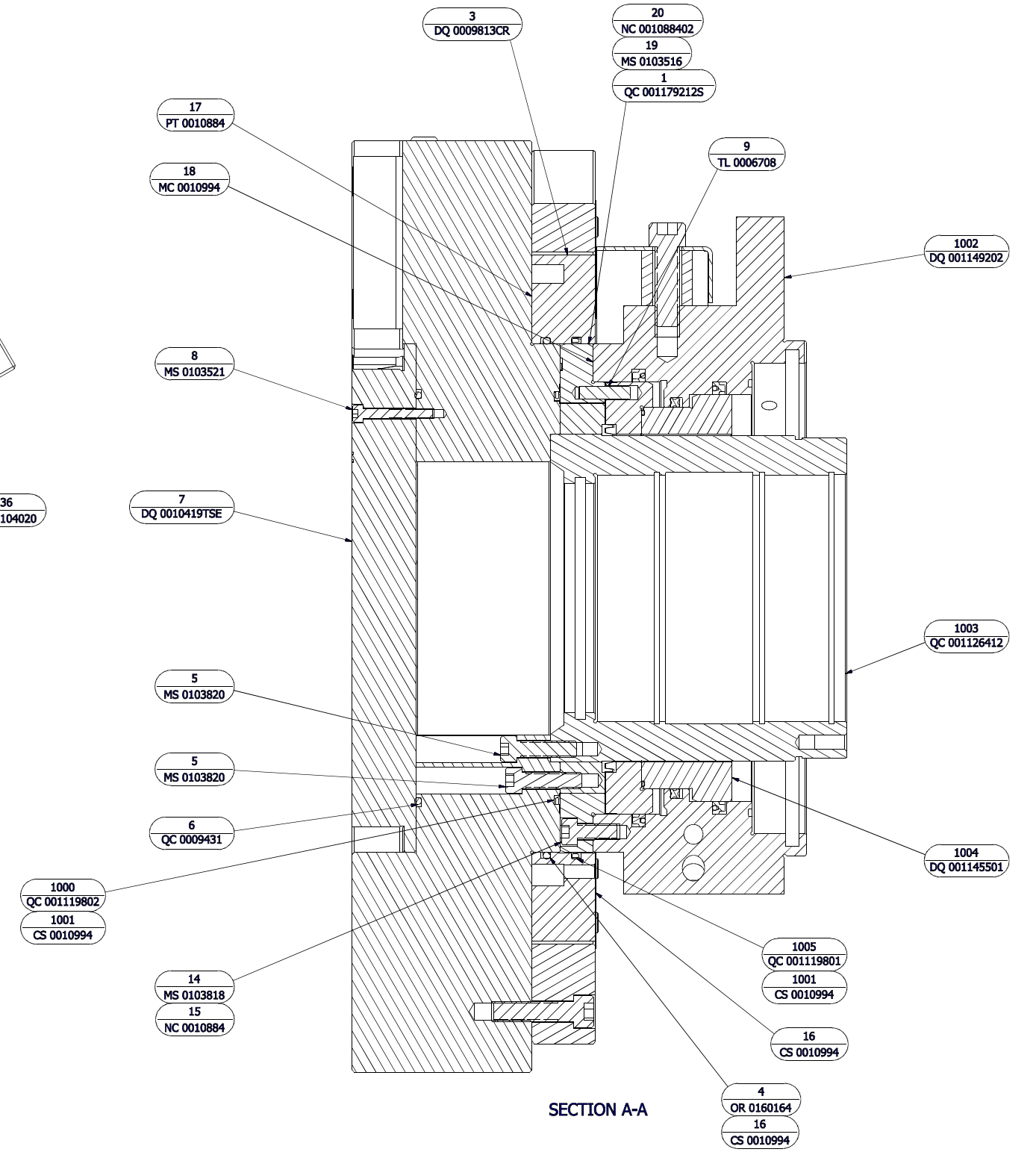
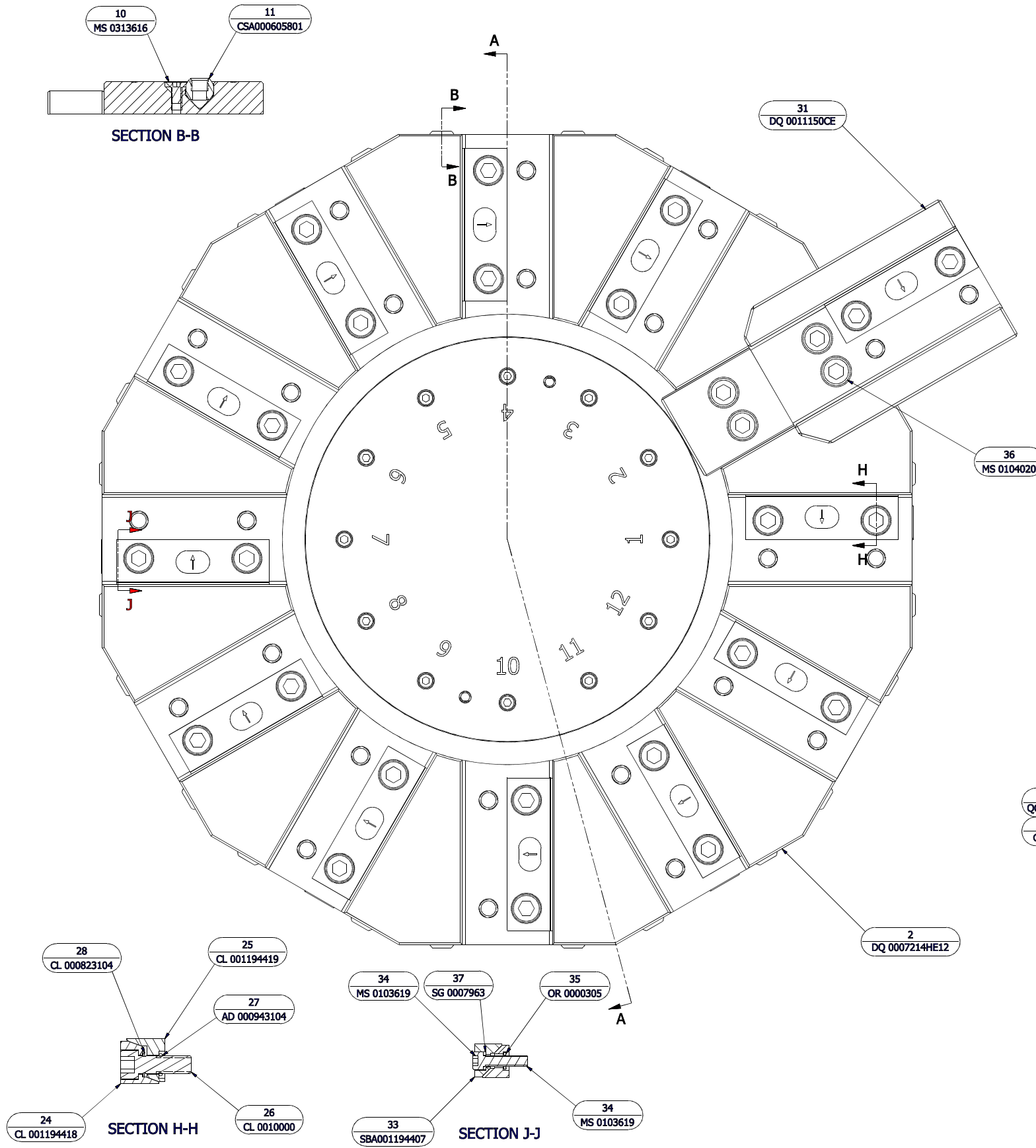
SECTION A-A

BMT55 TOP PLATE  
DQ 0007214BMTA

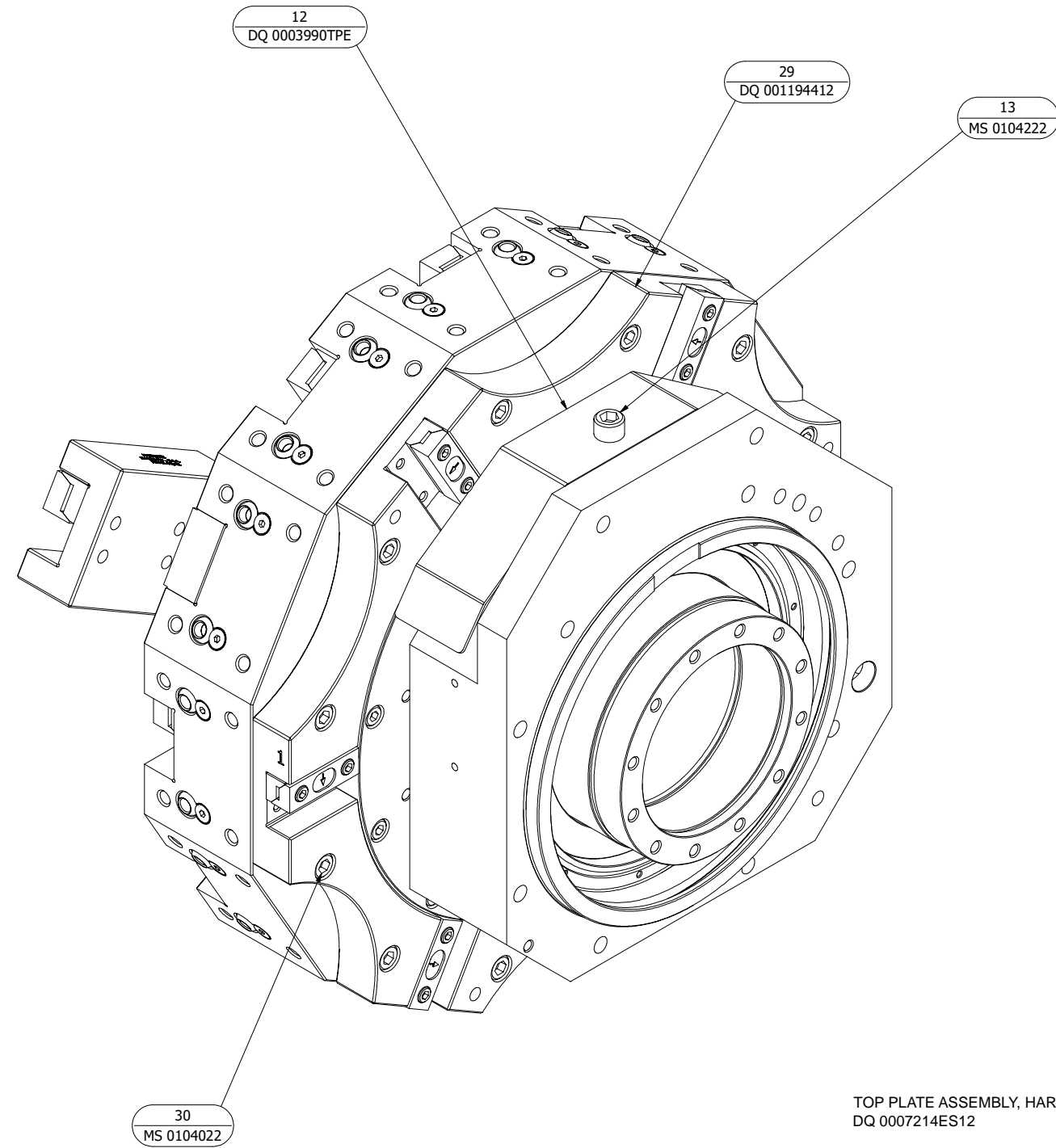
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 001179212S	1	COUPLING, 3 PIECE SET
2	DQ 0007214BM55	1	TOOL DISC, 12 STATION BMT55
3	MS 0103516	12	SCREW, SHC, M5X0.8X12MM
4	MS 0103820	24	SCREW, SHC, M8X1.25X30MM
5	MS 0103818	12	SCREW, SHC, M8X1.25X20MM
6	DQ 0009001TP	1	SHIM, TOP PLATE
7	TL 0006708	2	DOWEL PIN, 1/4 X 1
8	DQ 0003990TP	1	DEFLECTOR, TOP PLATE
9	MS 0104217	1	SCREW, SHC, M12X1.75X16MM
10	DQ 0011944P55	12	PLUG, BMT 55 TOP PLATE
11	DQ 0001990TSC	12	COVER, TOOL STATION
12	MS 0304017	24	SCREW, BTHD M10X1.5X16MM
13	MW 0184010	24	WASHER, M10 FLAT
14	NC 001088402	0.01	THREADLOCKER, LOCTITE 222
15	NC 0010884	0.01	THREADLOCKER, LOCTITE 242
16	MC 0010994	0.10	GREASE, SILICONE
17	CQ 0002321	1	GAGE KIT, ROUND SHANK TOOLS
1000	DQ 0010419BM55	-	COVER, TOP PLATE
1001	QC 001119802	-	LIP SEAL, FACE
1002	OR 0156160	-	O-RING
1003	QC 001119801	-	LIP SEAL, RADIAL
1004	QC 000943101	-	O-RING



Turret Top Plate, Hardinge English, Machine with Sub-Spindle

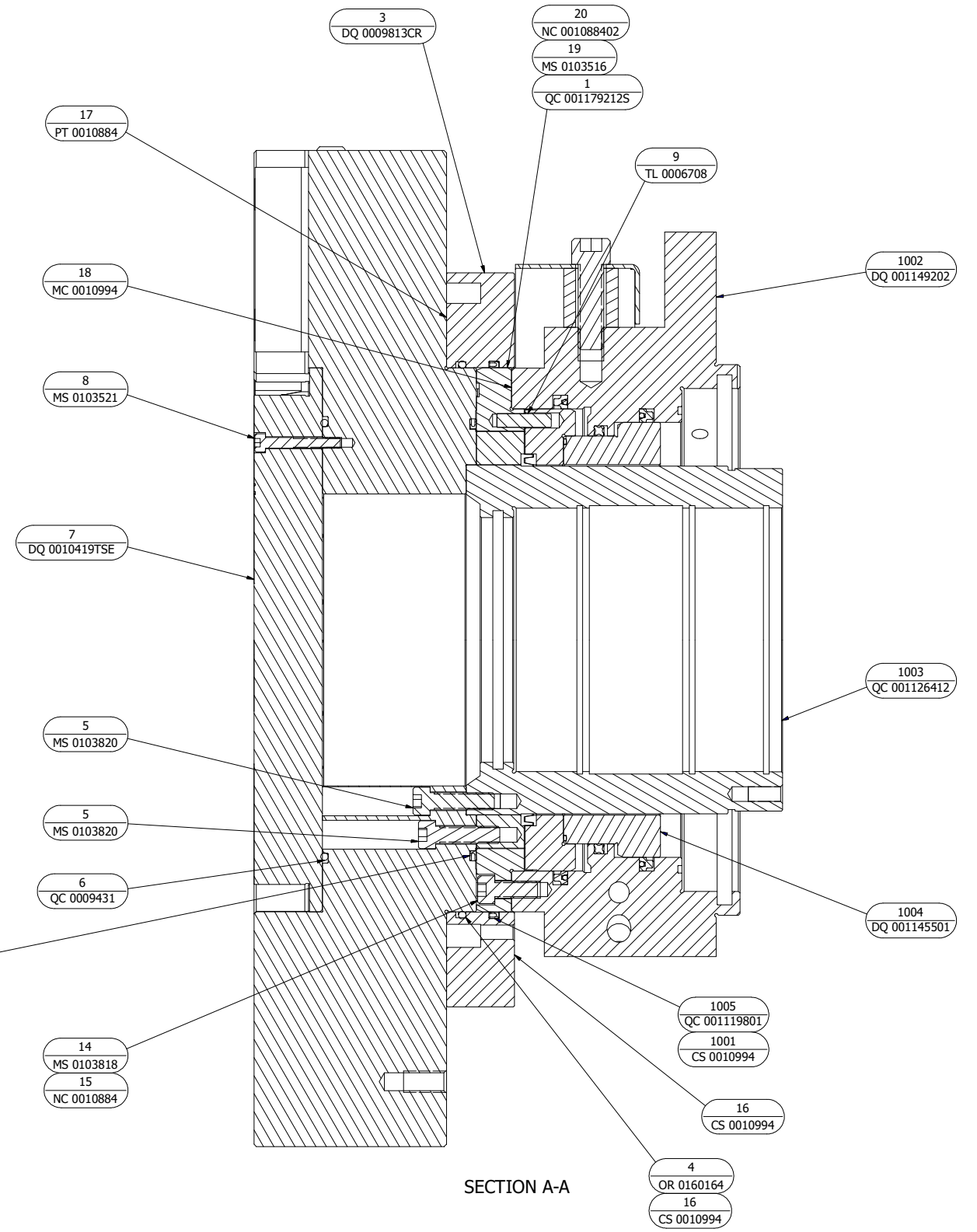
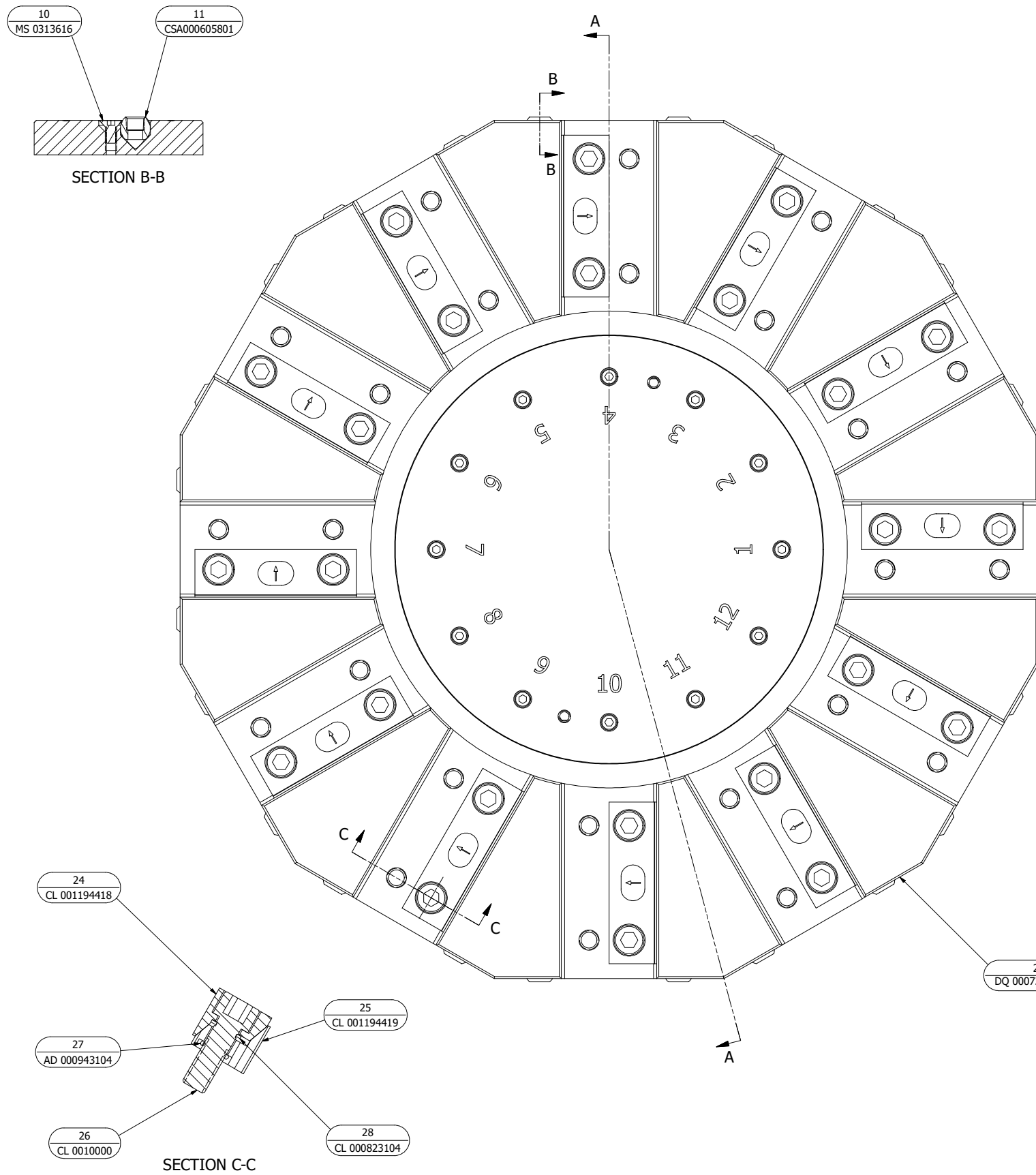


TOP PLATE ASSEMBLY, HARDINGE 12 STATION WITH SUB-SPINDLE, ENGLISH  
DQ 0007214ES12

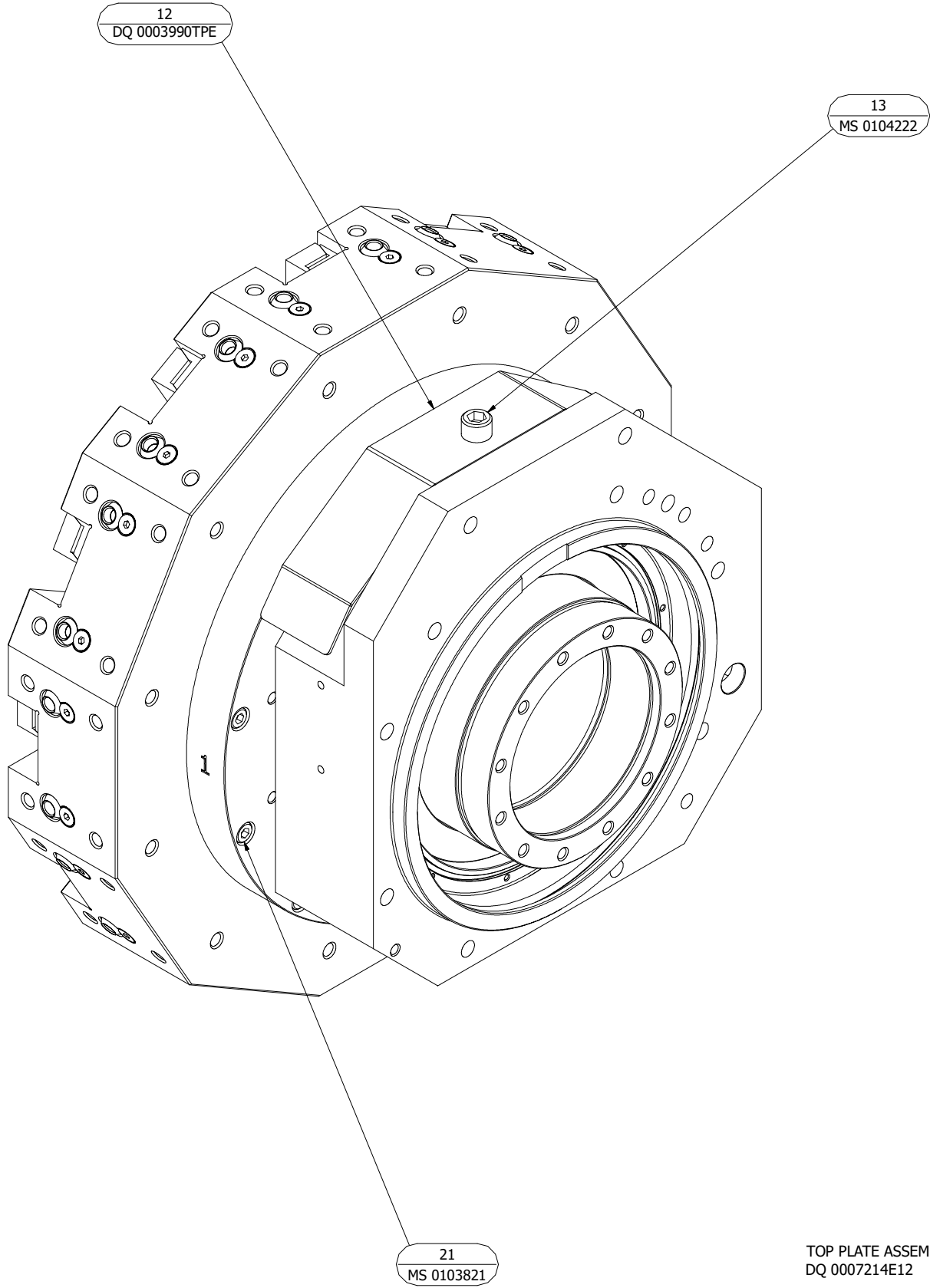


ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 001179212S	1	COUPLING, 3 PIECE SET
2	DQA0007214HE12	1	TOP PLATE, 12 STATION ENGLISH
3	DQ 0009813CR	1	COOLANT RING, TURRET
4	OR 0160164	1	O-RING
5	MS 0103820	24	SCREW, SHC, M8X1.25X30MM
6	QC 0009431	1	O-RING
7	DQ 0010419TSE	1	TOOL STOP, ENGLISH
8	MS 0103521	12	SCREW, SHC, M5X0.8X35MM
9	TL 0006708	2	DOWEL PIN, 1/4 X 1
10	MS 0313616	24	SCREW, FHD SOC, M6 X 1.0 X 12
11	CSA000605801	24	BALL, COOLANT DIRECTION
12	DQ 0003990TPE	1	DEFLECTOR, TOP PLATE
13	MS 0104222	1	SCREW, SHC, M12X1.75X40MM
14	MS 0103818	12	SCREW, SHC, M8X1.25X20MM
15	NC 0010884	.04	THREADLOCKER, LOCTITE 242
16	CS 0010994	.02	GREASE
17	PT 0010884	.02	SEALANT, PERMATEX 2A
18	MC 0010994	.02	GREASE, SILICONE
19	MS 0103516	12	SCREW, SHC, M5X0.8X12MM
20	NC 001088402	.01	THREADLOCKER, LOCTITE 222
21	MS 0103821	12	SCREW, SHC, M8X1.25X35MM
23	CL 0011890BT	1	TOOL, BORING BAR CENTERING
24	CL 001194418	12	CLAMP, TOP TOOL
25	CL 001194419	12	CLAMP, BOTTOM TOOL
26	CL 0010000	24	SCREW, CLAMP
27	AD 000943104	24	O-RING, 3-904
28	CL 000823104	24	RETAINING RING, CLAMP
29	DQ 001194412	1	SECOND OP TOOLING PLATE
30	MS 0104022	12	SCREW, SHC, M10X1.5X40MM
31	DQ 0011150CE	1	TOOL HOLDER EXTENSION, SUB-SPINDLE
32	SBA0011944 B	6	CLAMP, BOTTOM TOOL
33	SBA001194407	6	CLAMP, TOP TOOL
34	MS 0103619	12	SCREW, SHC, M6X1X25MM
35	OR 0000305	12	O-RING
36	MS 0104020	4	SCREW, SHC, M10X1.5X30MM
37	SG 0007963	12	WASHER, CLAMP TOOL
1000	QC 001119802	-	LIP SEAL, FACE
1001	CS 0010994	-	GREASE, MOBILTEMP SHC-32
1002	DQ 001149202	-	HOUSING, TURRET PISTON
1003	QC 001126412	-	SHAFT, TURRET INDEX
1004	DQ 001145501	-	PISTON, TURRET FRONT
1005	QC 001119801	-	LIP SEAL, RADIAL

Turret Top Plate, Hardinge English, Machine without Sub-Spindle



TOP PLATE ASSEMBLY, HARDINGE 12 STATION, ENGLISH  
DQ 0007214E12

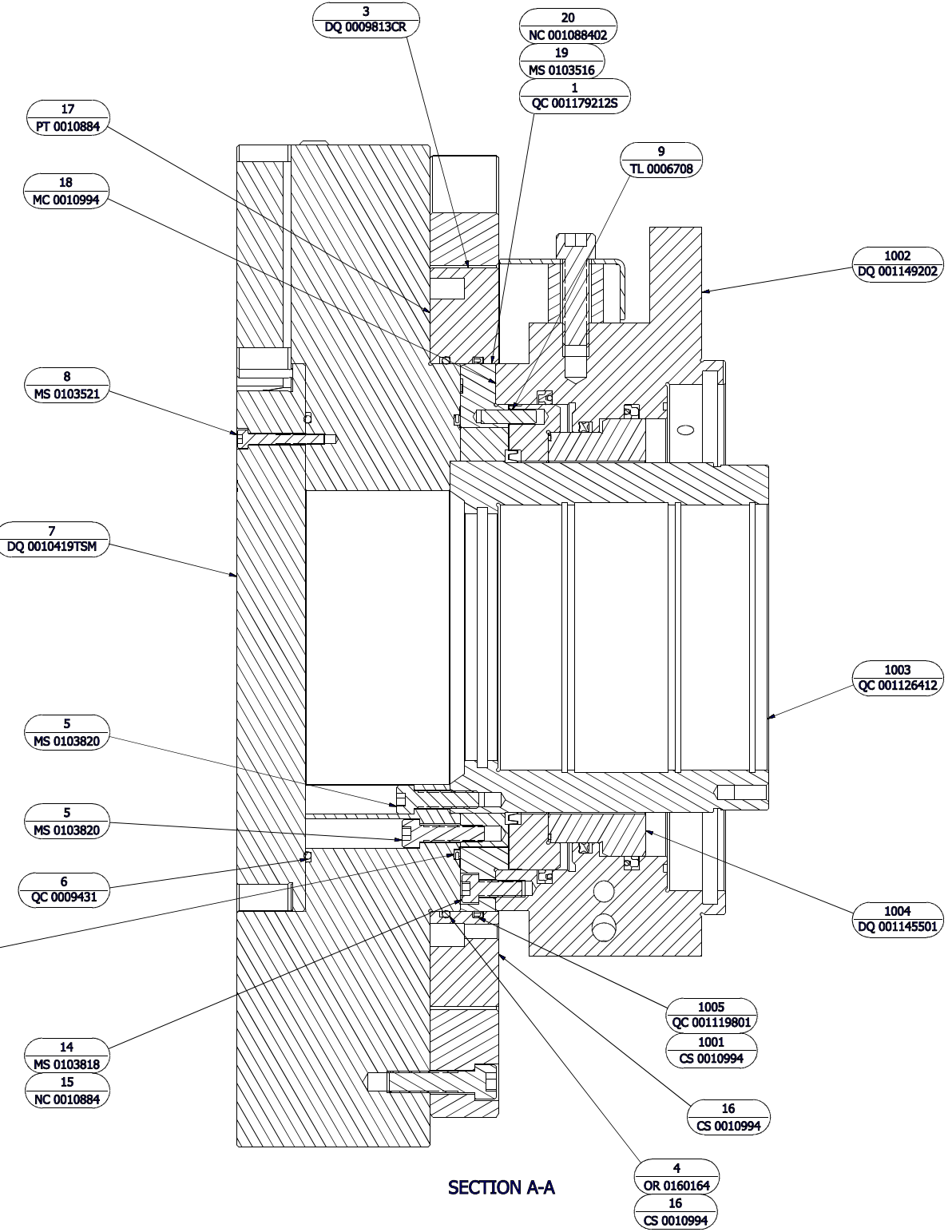
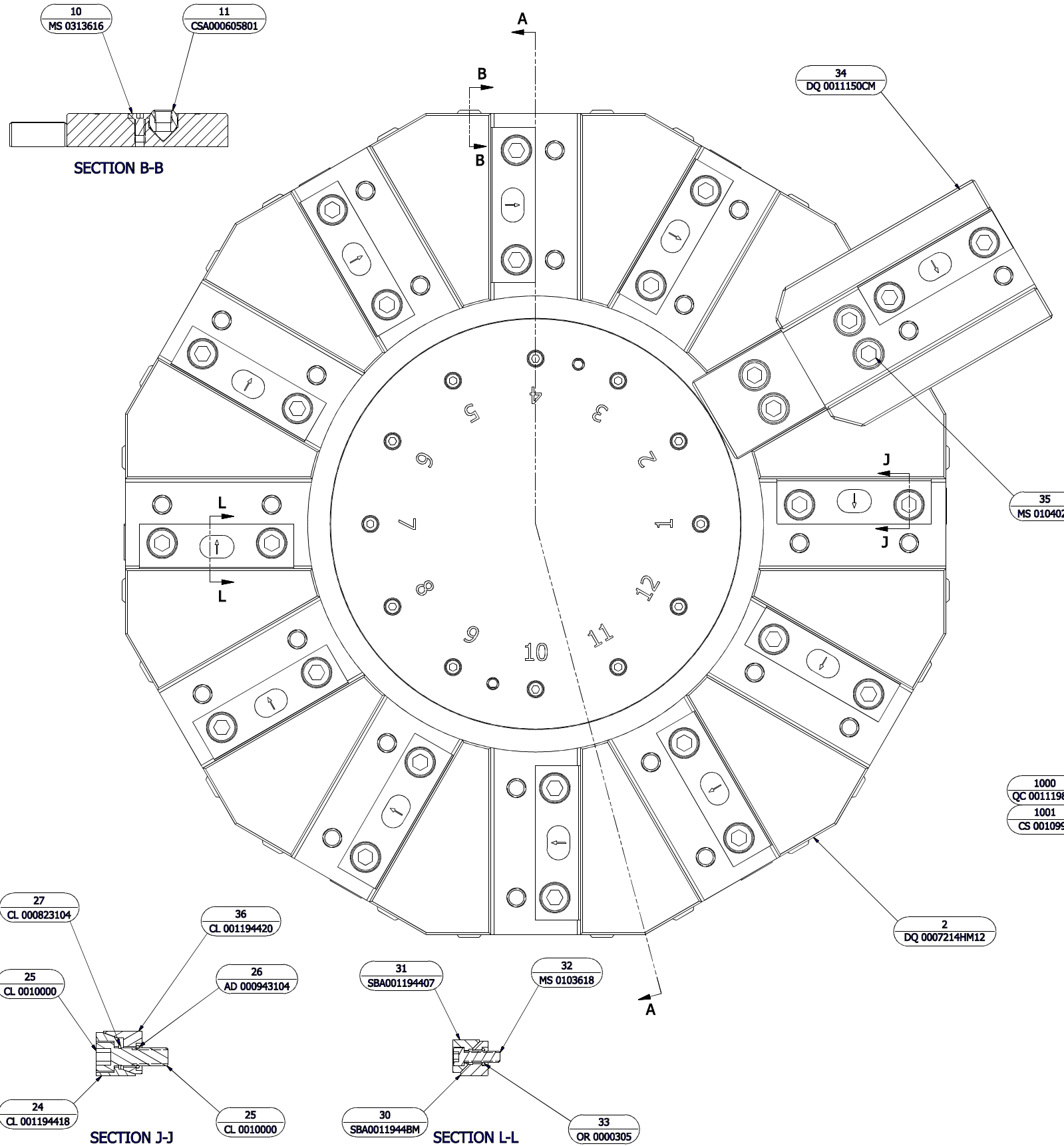


TOP PLATE ASSEMBLY, HARDINGE 12 STATION, ENGLISH  
DQ 0007214E12

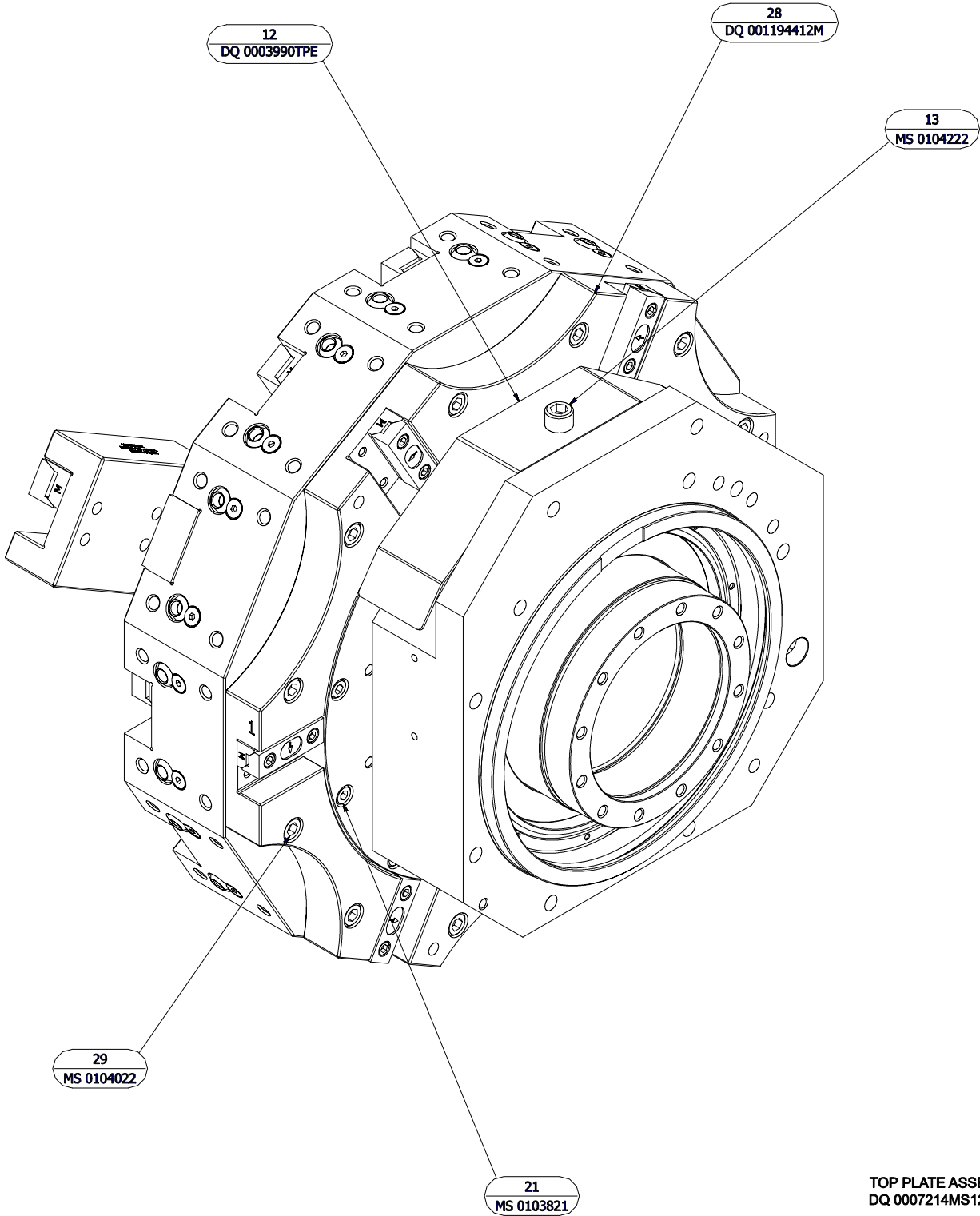
Turret Top Plate, Hardinge English, Machine without Sub-Spindle

ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 001179212S	1	COUPLING, 3 PIECE SET
2	DQA0007214HE12	1	TOP PLATE, 12 STATION ENGLISH
3	DQ 0009813CR	1	COOLANT RING, TURRET
4	OR 0160164	1	O-RING
5	MS 0103820	24	SCREW, SHC, M8X1.25X30MM
6	QC 0009431	1	O-RING
7	DQ 0010419TSE	1	TOOL STOP, ENGLISH
8	MS 0103521	12	SCREW, SHC, M5X0.8X35MM
9	TL 0006708	2	DOWEL PIN, 1/4 X 1
10	MS 0313616	24	SCREW, FHD SOC, M6 X 1.0 X 12
11	CSA000605801	24	BALL, COOLANT DIRECTION
12	DQ 0003990TPE	1	DEFLECTOR, TOP PLATE
13	MS 0104222	1	SCREW, SHC, M12X1.75X40MM
14	MS 0103818	12	SCREW, SHC, M8X1.25X20MM
15	NC 0010884	.04	THREADLOCKER, LOCTITE 242
16	CS 0010994	.02	GREASE
17	PT 0010884	.02	SEALANT, PERMATEX 2A
18	MC 0010994	.02	GREASE, SILICONE
19	MS 0103516	12	SCREW, SHC, M5X0.8X12MM
20	NC 001088402	.01	THREADLOCKER, LOCTITE 222
21	MS 0103821	12	SCREW, SHC, M8X1.25X35MM
23	CL 0011890BT	1	TOOL, BORING BAR CENTERING
24	CL 001194418	12	CLAMP, TOP TOOL
25	CL 001194419	12	CLAMP, BOTTOM TOOL
26	CL 0010000	24	SCREW, CLAMP
27	AD 000943104	24	O-RING
28	CL 000823104	24	RETAINING RING, CLAMP
1000	QC 001119802	-	LIP SEAL, FACE
1001	CS 0010994	-	GREASE, MOBILTEMP SHC-32
1002	DQ 001149202	-	HOUSING, TURRET PISTON
1003	QC 001126412	-	SHAFT, TURRET INDEX
1004	DQ 001145501	-	PISTON, TURRET FRONT
1005	QC 001119801	-	LIP SEAL, RADIAL

Turret Top Plate, Hardinge Metric, Machine with Sub-Spindle



TOP PLATE ASSEMBLY, HARDINGE 12 STATION WITH SUB-SPINDLE, METRIC  
DQ 0007214MS12

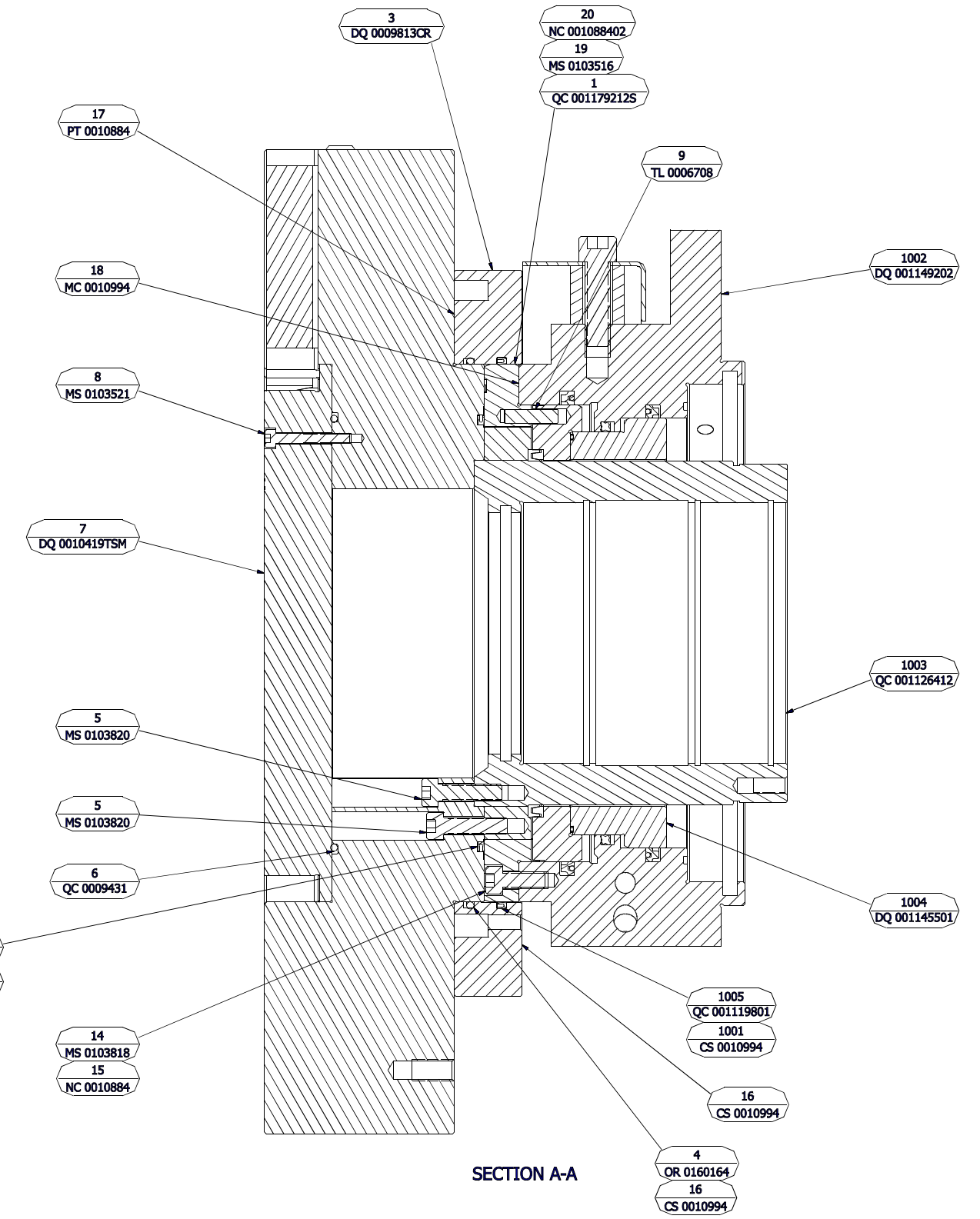
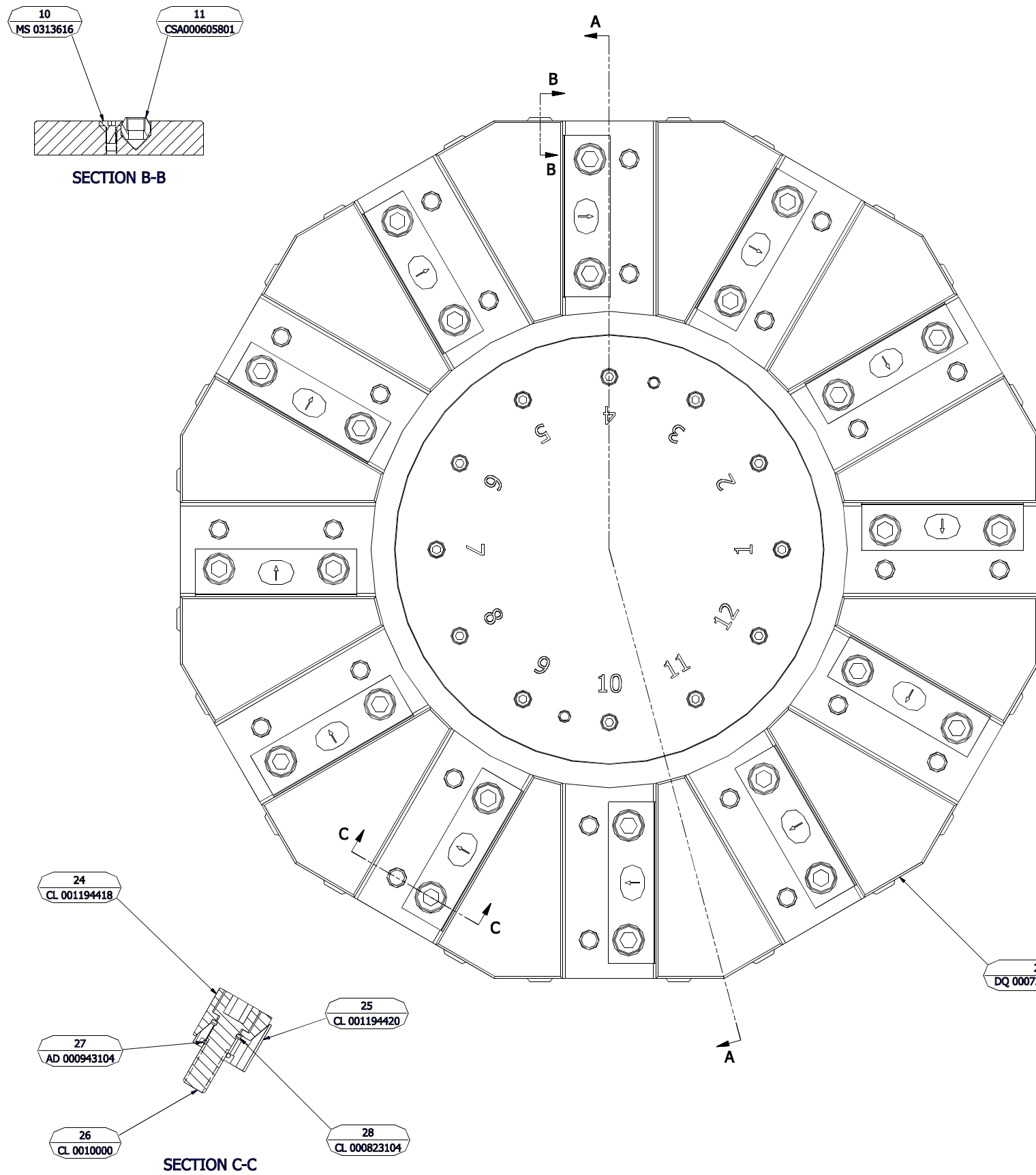


TOP PLATE ASSEMBLY, HARDINGE 12 STATION WITH SUB-SPINDLE, METRIC  
DQ 0007214MS12

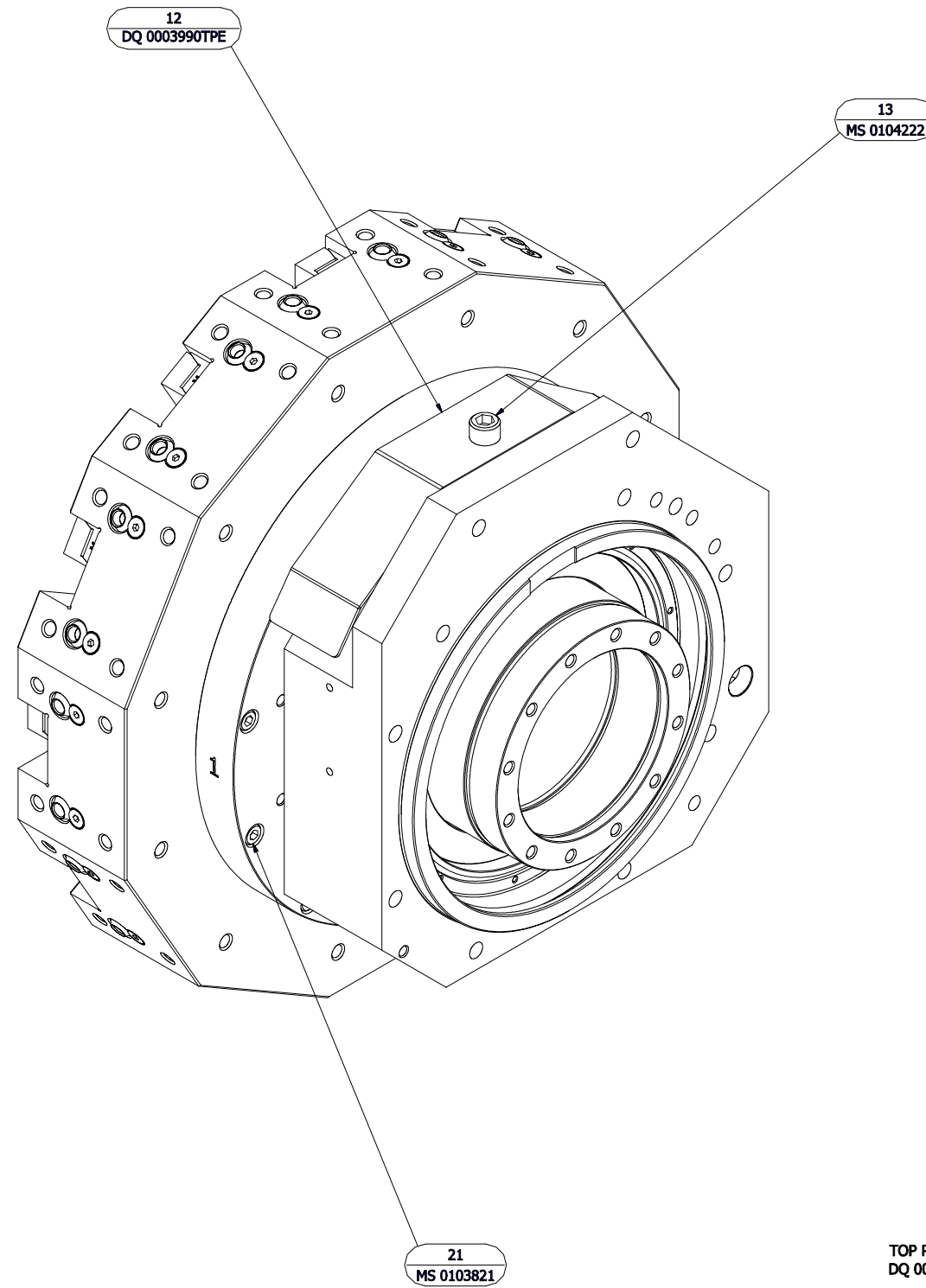


ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 001179212S	1	COUPLING, 3 PIECE SET
2	DQA0007214HM12	1	TOP PLATE, 12 STATION METRIC
3	DQ 0009813CR	1	COOLANT RING, TURRET
4	OR 0160164	1	O-RING
5	MS 0103820	24	SCREW, SHC, M8X1.25X30MM
6	QC 0009431	1	O-RING
7	DQ 0010419TSM	1	TOOL STOP, METRIC
8	MS 0103521	12	SCREW, SHC, M5X0.8X35MM
9	TL 0006708	2	DOWEL PIN, 1/4 X 1
10	MS 0313616	24	SCREW, FHD SOC, M6 X 1.0 X 12
11	CSA000605801	24	BALL, COOLANT DIRECTION
12	DQ 0003990TPE	1	DEFLECTOR, TOP PLATE
13	MS 0104222	1	SCREW, SHC, M12X1.75X40MM
14	MS 0103818	12	SCREW, SHC, M8X1.25X20MM
15	NC 0010884	.04	THREADLOCKER, LOCTITE 242
16	CS 0010994	.02	GREASE
17	PT 0010884	.02	SEALANT, PERMATEX 2A
18	MC 0010994	.02	GREASE, SILICONE
19	MS 0103516	12	SCREW, SHC, M5X0.8X12MM
20	NC 001088402	.01	THREADLOCKER, LOCTITE 222
21	MS 0103821	12	SCREW, SHC, M8X1.25X35MM
23	CL 0011890BM	1	TOOL, BORING BAR CENTERING
24	CL 001194418	12	CLAMP, TOP TOOL
25	CL 0010000	24	SCREW, CLAMP
26	AD 000943104	24	O-RING
27	CL 000823104	24	RETAINING RING, CLAMP
28	DQ 001194412M	1	TOOLING PLATE, SUB-SPINDLE METRIC
29	MS 0104022	12	SCREW, SHC, M10X1.5X40MM
30	SBA0011944BM	6	CLAMP, BOTTOM TOOL
31	SBA001194407	6	CLAMP, TOP TOOL
32	MS 0103618	12	SCREW, SHC, M6X1X20MM
33	OR 0000305	12	O-RING
34	DQ 0011150CM	1	TOOL HOLDER EXTENSION, SUB-SPINDLE
35	MS 0104020	4	SCREW, SHC, M10X1.5X30MM
36	CL 001194420	12	CLAMP, BOTTOM TOOL (METRIC)
1000	QC 001119802	-	LIP SEAL, FACE
1001	CS 0010994	-	GREASE, MOBILTEMP SHC-32
1002	DQ 001149202	-	HOUSING, TURRET PISTON
1003	QC 001126412	-	SHAFT, TURRET INDEX
1004	DQ 001145501	-	PISTON, TURRET FRONT
1005	QC 001119801	-	LIP SEAL, RADIAL

Turret Top Plate, Hardinge Metric, Machine without Sub-Spindle

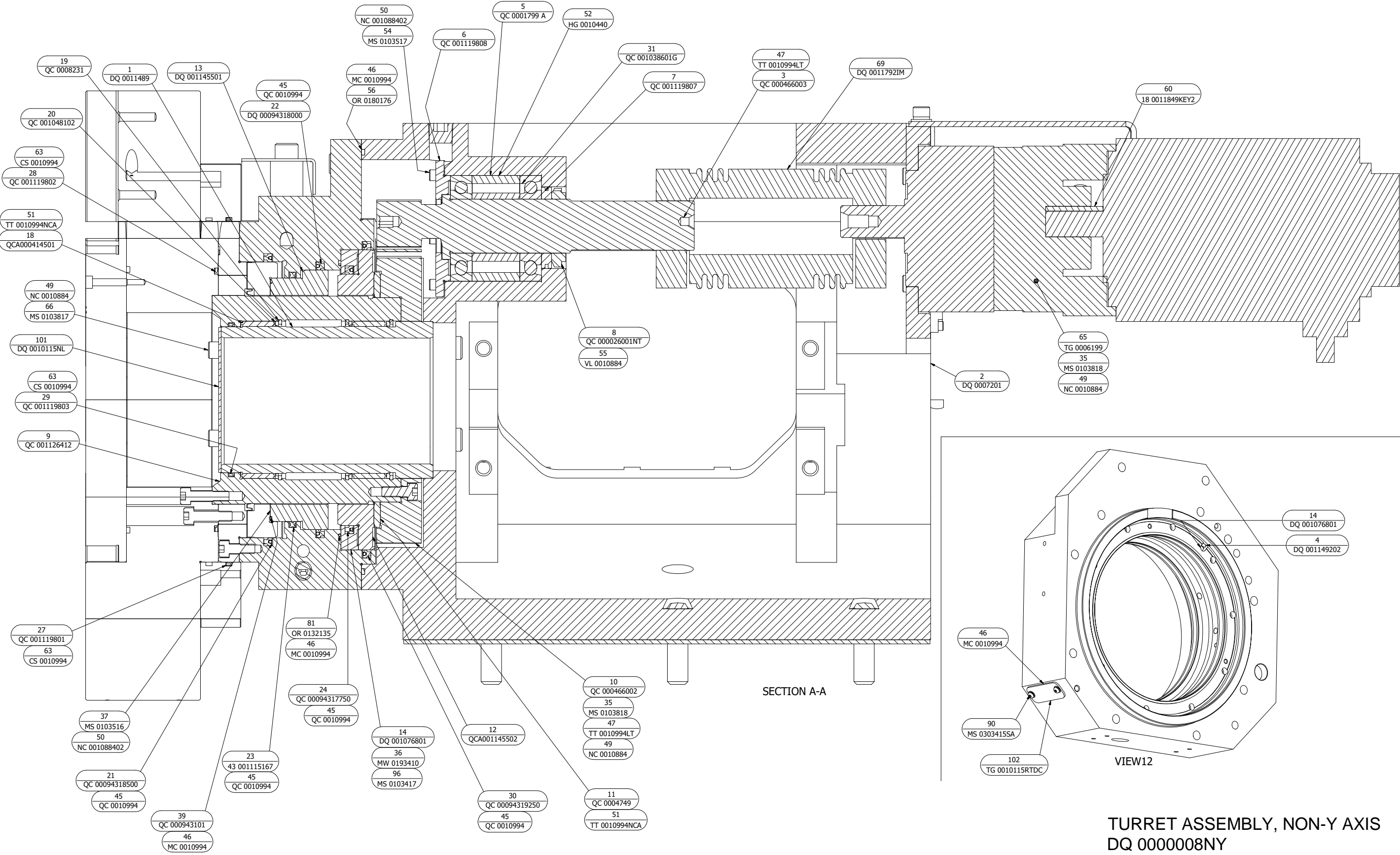


TOP PLATE ASSEMBLY, HARDINGE 12 STATION, METRIC  
DQ 0007214M12

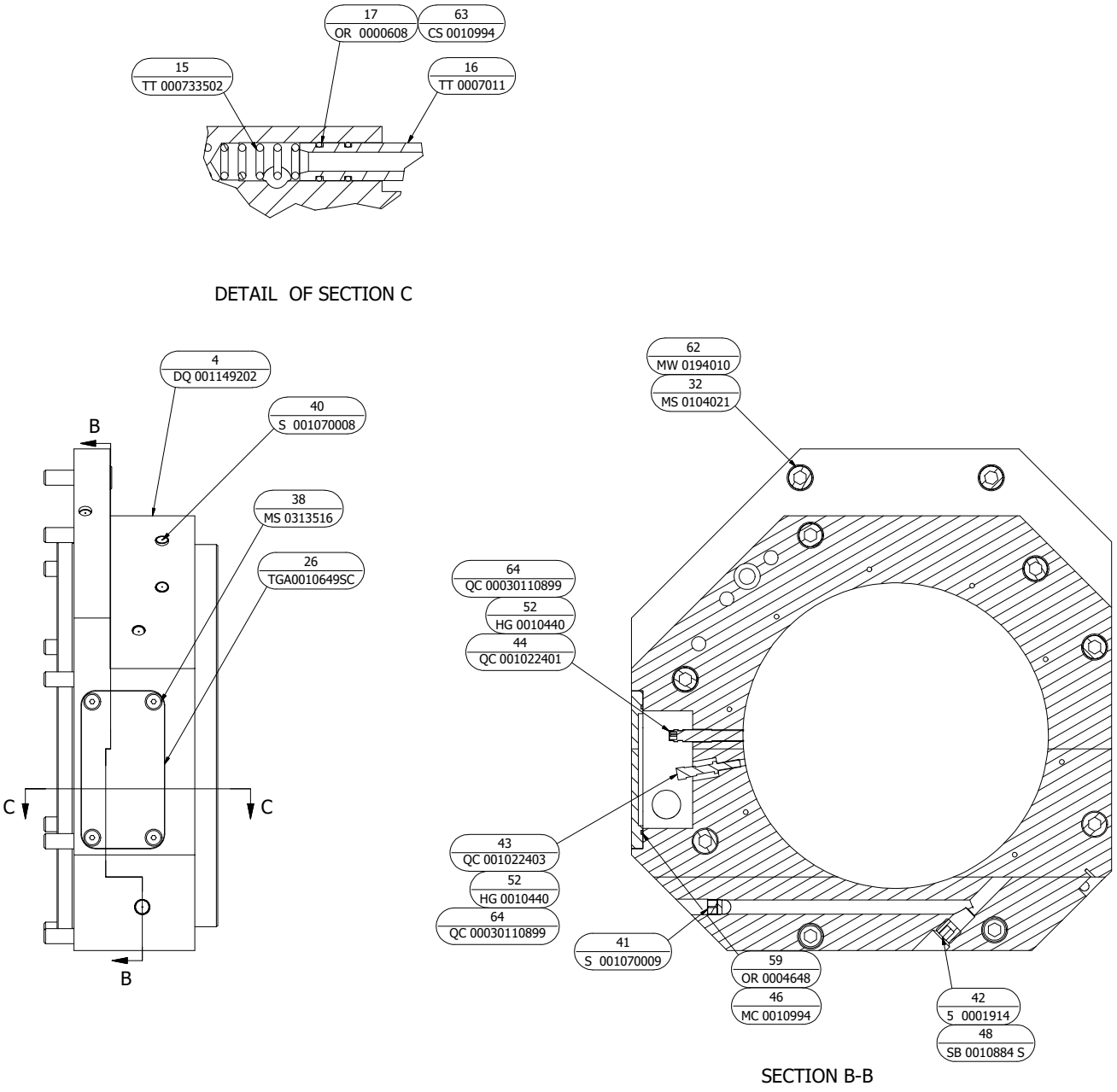
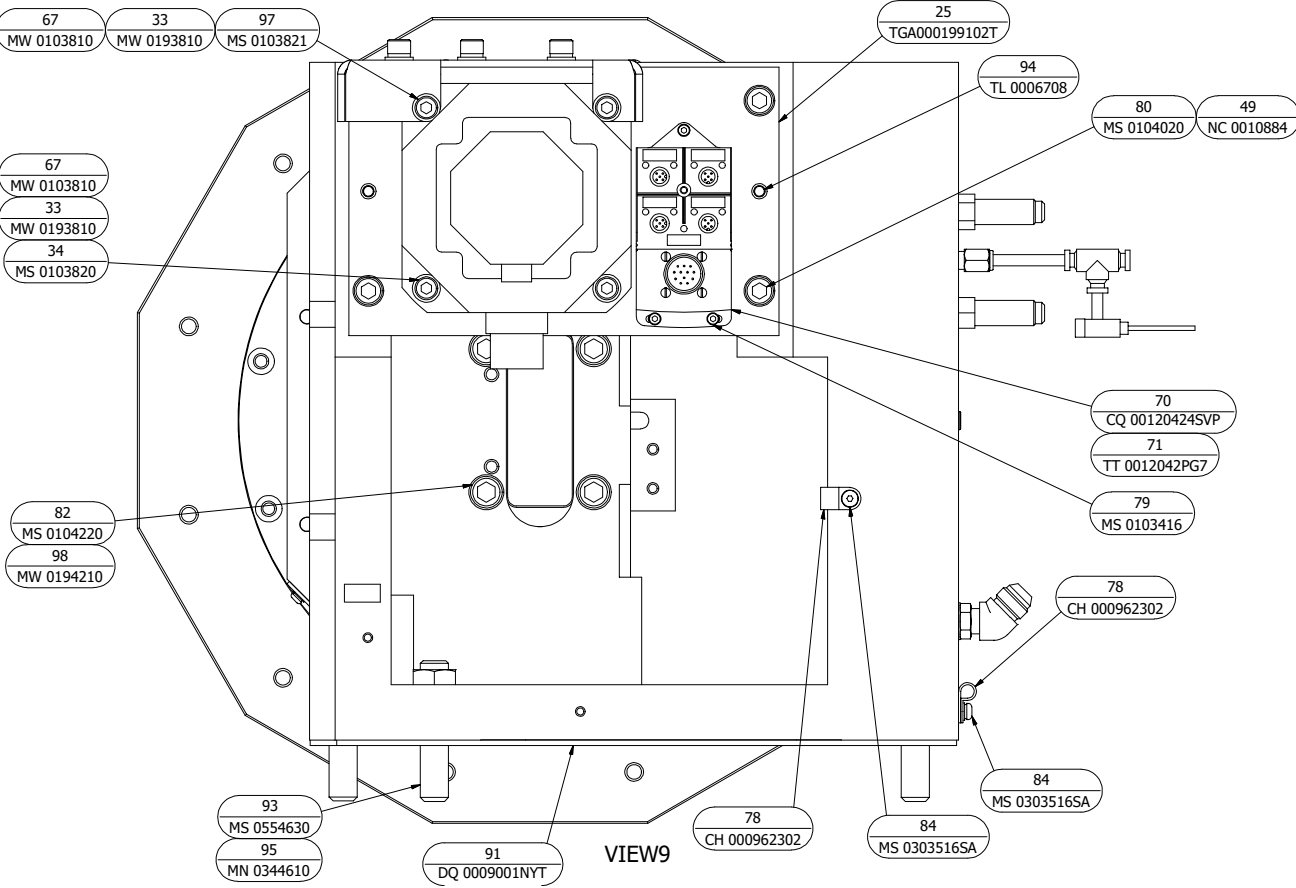
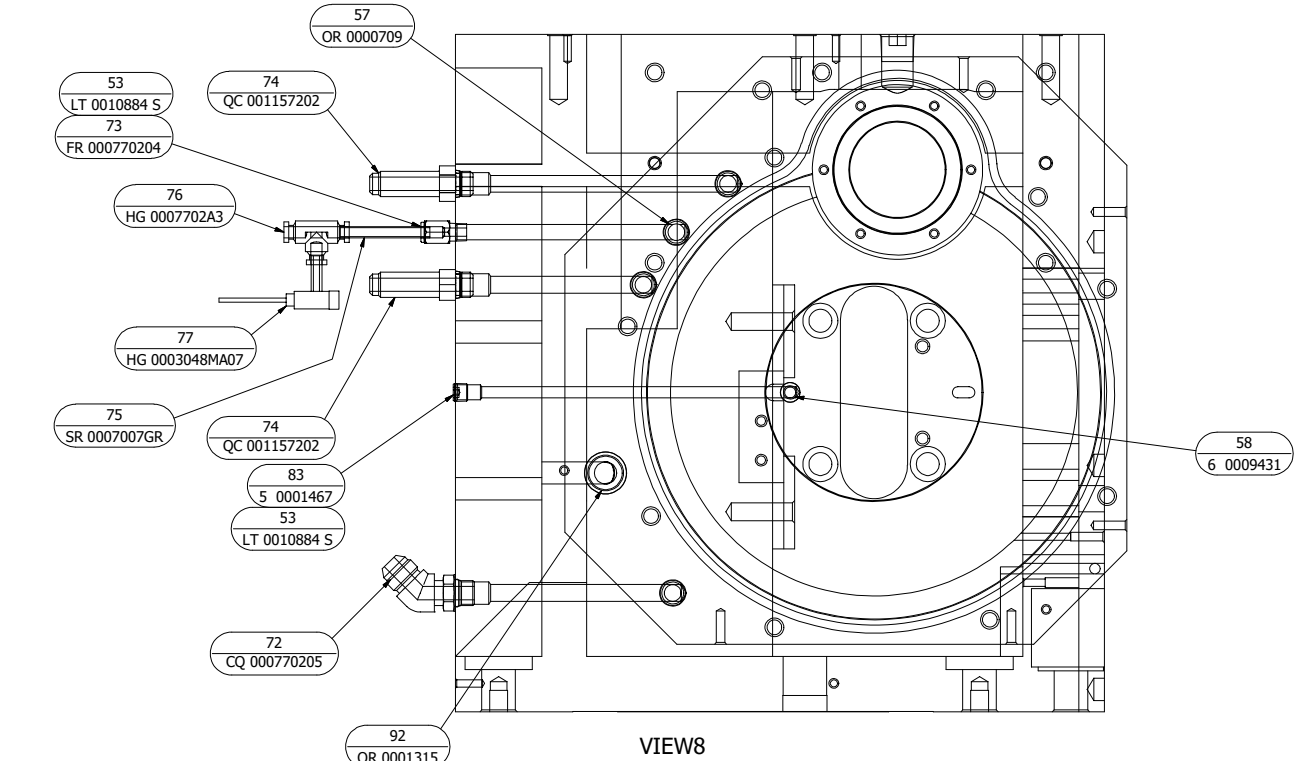


TOP PLATE ASSEMBLY, HARDINGE 12 STATION, METRIC  
DQ 0007214M12

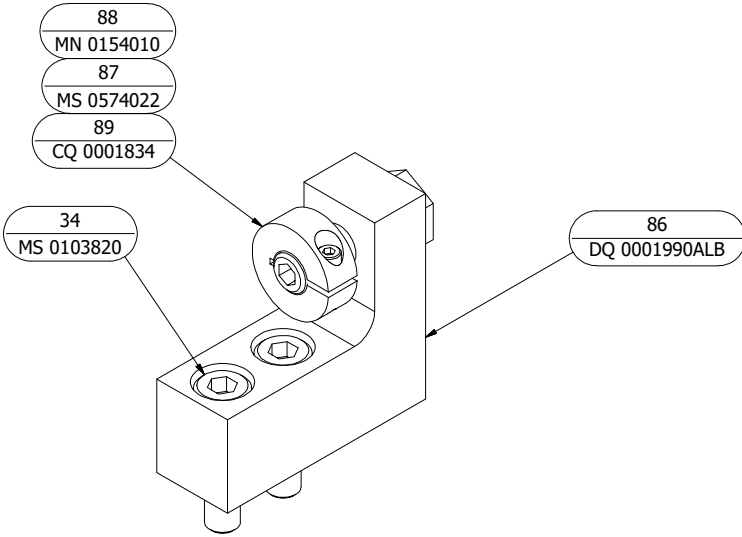
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QC 001179212S	1	COUPLING, 3 PIECE SET
2	DQA0007214HM12	1	TOP PLATE, 12 STATION METRIC
3	DQ 0009813CR	1	COOLANT RING, TURRET
4	OR 0160164	1	O-RING
5	MS 0103820	24	SCREW, SHC, M8X1.25X30MM
6	QC 0009431	1	O-RING
7	DQ 0010419TSM	1	TOOL STOP, METRIC
8	MS 0103521	12	SCREW, SHC, M5X0.8X35MM
9	TL 0006708	2	DOWEL PIN, 1/4 X 1
10	MS 0313616	24	SCREW, FHD SOC, M6 X 1.0 X 12
11	CSA000605801	24	BALL, COOLANT DIRECTION
12	DQ 0003990TPE	1	DEFLECTOR, TOP PLATE
13	MS 0104222	1	SCREW, SHC, M12X1.75X40MM
14	MS 0103818	12	SCREW, SHC, M8X1.25X20MM
15	NC 0010884	.04	THREADLOCKER, LOCTITE 242
16	CS 0010994	.02	GREASE
17	PT 0010884	.02	SEALANT, PERMATEX 2A
18	MC 0010994	.02	GREASE, SILICONE
19	MS 0103516	12	SCREW, SHC, M5X0.8X12MM
20	NC 001088402	.01	THREADLOCKER, LOCTITE 222
21	MS 0103821	12	SCREW, SHC, M8X1.25X35MM
23	CL 0011890BM	1	TOOL, BORING BAR CENTERING
24	CL 001194418	12	CLAMP, TOP TOOL
25	CL 001194420	12	CLAMP, BOTTOM TOOL (METRIC)
26	CL 0010000	24	SCREW, CLAMP
27	AD 000943104	24	O-RING
28	CL 000823104	24	RETAINING RING, CLAMP
1000	QC 001119802	-	LIP SEAL, FACE
1001	CS 0010994	-	GREASE, MOBILTEMP SHC-32
1002	DQ 001149202	-	HOUSING, TURRET PISTON
1003	QC 001126412	-	SHAFT, TURRET INDEX
1004	DQ 001145501	-	PISTON, TURRET FRONT
1005	QC 001119801	-	LIP SEAL, RADIAL



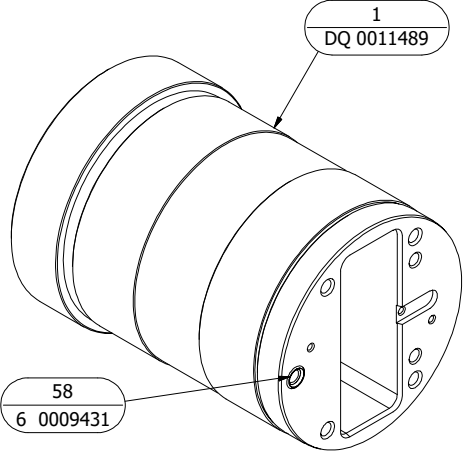
TURRET ASSEMBLY, NON-Y AXIS  
DQ 000008NY



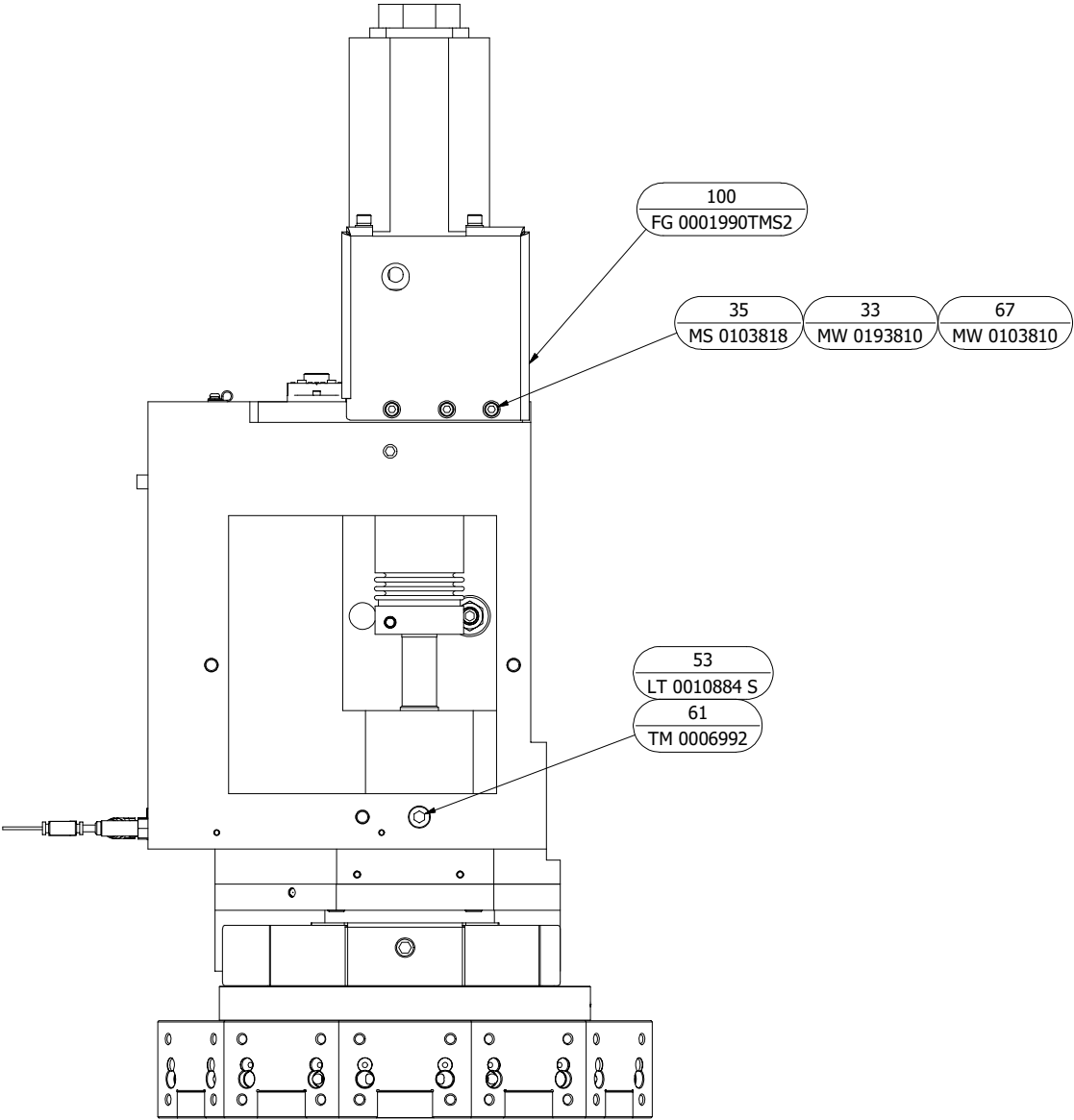
TURRET ASSEMBLY, NON-Y AXIS  
DQ 000008NY



ALIGNMENT BLOCKS  
(FASTEN TO CROSS-SLIDE)  
2 PLACES



BEARING SUPPORT



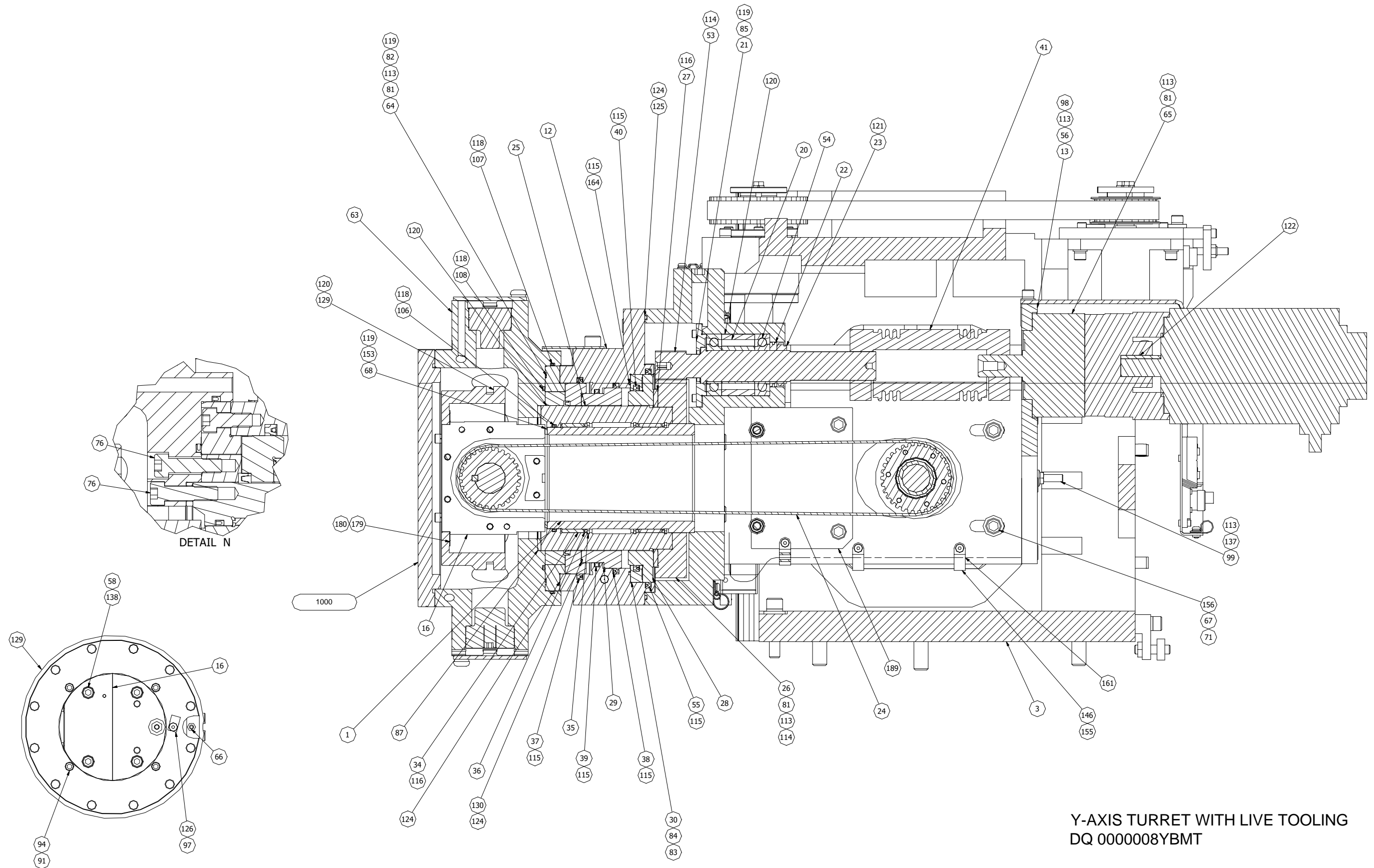
VIEW2

TURRET ASSEMBLY, NON-Y AXIS  
DQ 000008NY

Turret Assembly, Non-Y Axis without Live Tooling

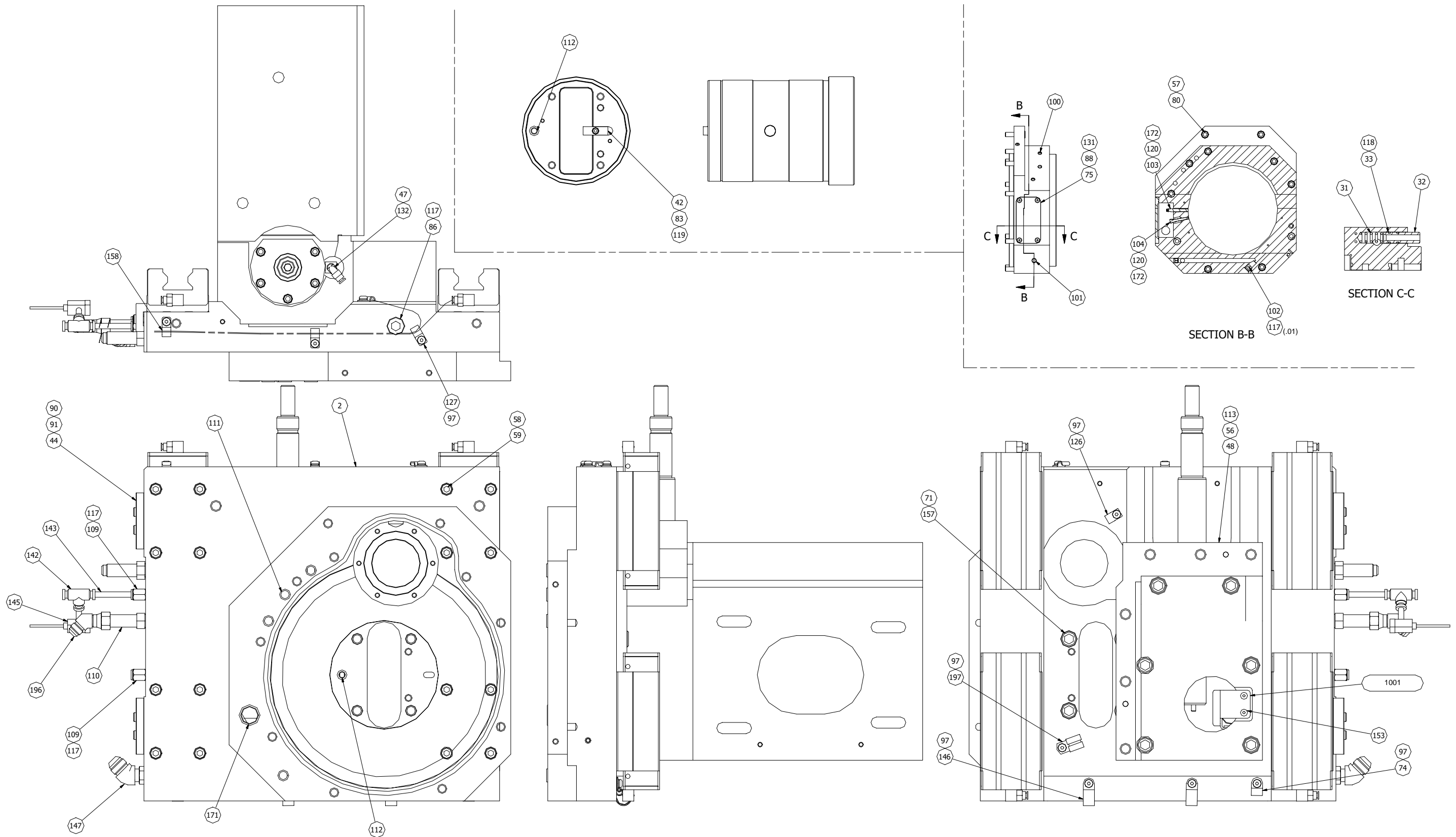
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0011489	1	SUPPORT, BEARING	41	S 001070009	1	LEE PLUG	82	MS 0104220	4	SCREW, SHC, M12X1.75X30MM
2	DQ 0007201	1	HOUSING, TURRET	42	5 0001914	1	PLUG, 1/4 PIPE	83	5 0001467	1	PLUG, 1/8 NPT
3	QC 000466003	1	GEAR, INDEX DRIVE	43	QC 001022403	1	SWITCH, PROXIMITY	84	MS 0303516SA	2	SCREW ASSEMBLY, BH M5X.8X12
4	DQ 001149202	1	HOUSING, TURRET PISTON	44	QC 001022401	1	SWITCH, PROXIMITY 8MM X 50MM	86	DQ 0001990ALB	2	BLOCK, ALIGNMENT
5	QC 0001799 A	1	SPACER ASSEMBLY	45	QC 0010994	0.04	GREASE, PARKER SUPER LUBE	87	MS 0574022	2	SCREW, SOC. SET, FP M10X1.50X40MM
6	QC 001119808	1	LABYRINTH, INDEX DRIVE FRONT	46	MC 0010994	0.04	GREASE, SILICONE	88	MN 0154010	2	NUT, JAM M10 X 1.5
7	QC 001119807	1	LABYRINTH, INDEX DRIVE REAR	47	TT 0010994LT	0.05	GREASE, NCA 152	89	CQ 0001834	2	COLLAR, THREADED SHAFT
8	QC 000026001NT	1	NUT, LOCK M35 x 1.5	48	SB 0010884 S	0.01	SEALANT, HYDRAULIC	90	MS 0303415SA	2	SCREW ASSEMBLY, M4X.7X10MM
9	QC 001126412	1	SHAFT, TURRET INDEX	49	NC 0010884	0.03	THREADLOCKER, LOCTITE 242	91	DQ 0009001NYT	1	SHIM, NON-Y TURRET
10	QC 000466002	1	GEAR, DRIVEN INDEX	50	NC 001088402	0.03	THREADLOCKER, LOCTITE 222	92	OR 0001315	1	O-RING
11	QC 0004749	1	BEARING, THRUST	51	TT 0010994NCA	0.03	GREASE, NCA15	93	MS 0554630	6	SCREW, SET, CUP M16X2X80MM
12	QCA001145502	1	PISTON, TURRET REAR	52	HG 0010440	0.10	GREASE, ANTI-SIEZE, BLACK MOLLY	94	TL 0006708	2	DOWEL PIN, 1/4 X 1
13	DQ 001145501	1	PISTON, TURRET FRONT	53	LT 0010884 S	0.02	SEALANT, PIPE	95	MN 0344610	6	NUT, FLANGE M16
14	DQ 001076801	1	CAP, PISTON	54	MS 0103517	6	SCREW, SHC, M5X0.8X16MM	96	MS 0103417	10	SCREW, SHC, M4X0.7X16MM
15	TT 000733502	1	SPRING	55	VL 0010884	0.01	THREADLOCKER, LOCTITE 277	97	MS 0103821	2	SCREW, SHC, M8X1.25X35MM
16	TT 0007011	1	BUTTON, COOLANT	56	OR 0180176	1	O-RING	98	MW 0194210	4	WASHER, LOCK, M12
17	OR 0000608	2	O-RING	57	OR 0000709	4	O-RING	99	CK 000918824	8	FERRULE FOR AWG 24
18	QCA000414501	2	BEARING, NEEDLE INDEX SHAFT	58	6 0009431	2	O-RING	100	FG 0001990TMS2	1	STIFFENER, MOTOR
19	QC 0008231	3	SNAP RING, INA BR123	59	OR 0004648	1	O-RING	101	DQ 0010115NL	1	COVER, NON-LIVE TOOL
20	QC 001048102	3	SPACER, BEARING	60	18 0011849KEY2	1	HALF KEY	102	TG 0010115RTDC	1	COVER, RTD SENSOR
21	QC 00094318500	1	SEAL, POLYPAK	61	TM 0006992	1	PIPE PLUG, 1/2 NPT				
22	DQ 00094318000	1	SEAL, POLYPAK	62	MW 0194010	10	WASHER, LOCK, M10				
23	43 001115167	1	QUAD RING, 7.500 ID x 3/16 CS	63	CS 0010994	0.01	GREASE				
24	QC 00094317750	1	SEAL, POLYPAK	64	QC 00030110899	2	CABLE, PROXIMITY SWITCH 10M				
25	TGA000199102T	1	PLATE, INDEX MOTOR MOUNT	65	TG 0006199	1	GEARBOX				
26	TGA0010649SC	1	PLATE, SWITCH COVER	66	MS 0103817	4	SCREW, SHC, M8X1.25X16MM				
27	QC 001119801	1	LIP SEAL, RADIAL	67	MW 0103810	7	WASHER, FLAT, M8				
28	QC 001119802	1	LIP SEAL, FACE	69	DQ 0011792IM	1	COUPLING, INDEX MOTOR				
29	QC 001119803	1	LIP SEAL, INDEX SHAFT	70	CQ 00120424SVP	1	I/O BLOCK, 4S POINT, V PLUG				
30	QC 00094319250	1	SEAL, POLYPAK	71	TT 0012042PG7	3	CONNECTOR, M ST 5P M12 PG7				
31	QC 001038601G	1	BEARING PAIR, INDEX DRIVE	72	CQ 000770205	1	ELBOW, 45 DEGREE -8 JIC X -6 SAE				
32	MS 0104021	10	SCREW, SHC, M10X1.5X35MM	73	FR 000770204	1	CONNECTOR, STRAIGHT MALE				
33	MW 0193810	7	WASHER, LOCK, M8	74	QC 001157202	2	CONNECTOR, LONG				
34	MS 0103820	6	SCREW, SHC, M8X1.25X30MM	75	SR 0007007GR	2	TUBING, 1/4" OD.FLEXIBLE				
35	MS 0103818	19	SCREW, SHC, M8X1.25X20MM	76	HG 0007702A3	1	TEE UNION 1/4 TUBE				
36	MW 0193410	10	WASHER, LOCK, M4	77	HG 0003048MA07	1	SWITCH, PRESSURE				
37	MS 0103516	12	SCREW, SHC, M5X0.8X12MM	78	CH 000962302	2	CABLE CLAMP, 5/16				
38	MS 0313516	4	SCREW, FLT HD M5x.8x12MM	79	MS 0103416	3	SCREW, SHC, M4X0.7X12MM				
39	QC 000943101	1	O-RING, 7.139" ID x .072 CS	80	MS 0104020	5	SCREW, SHC, M10X1.5X30MM				
40	S 001070008	4	LEE PLUG	81	OR 0132135	1	O-RING				



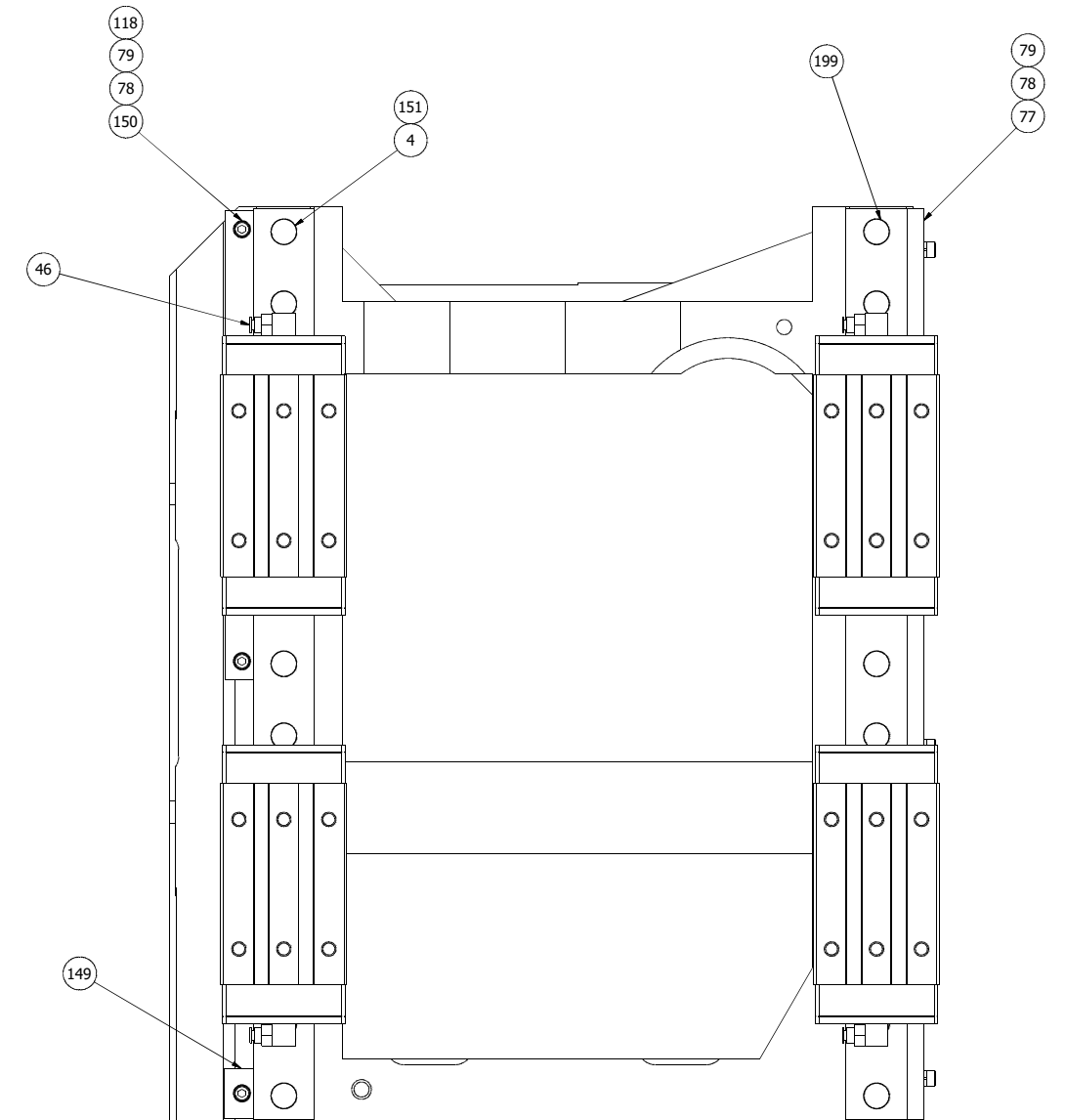
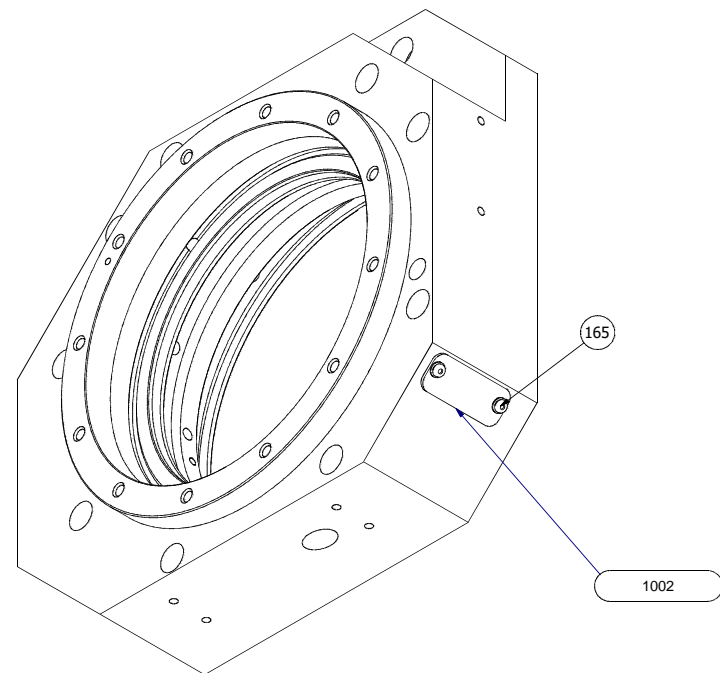
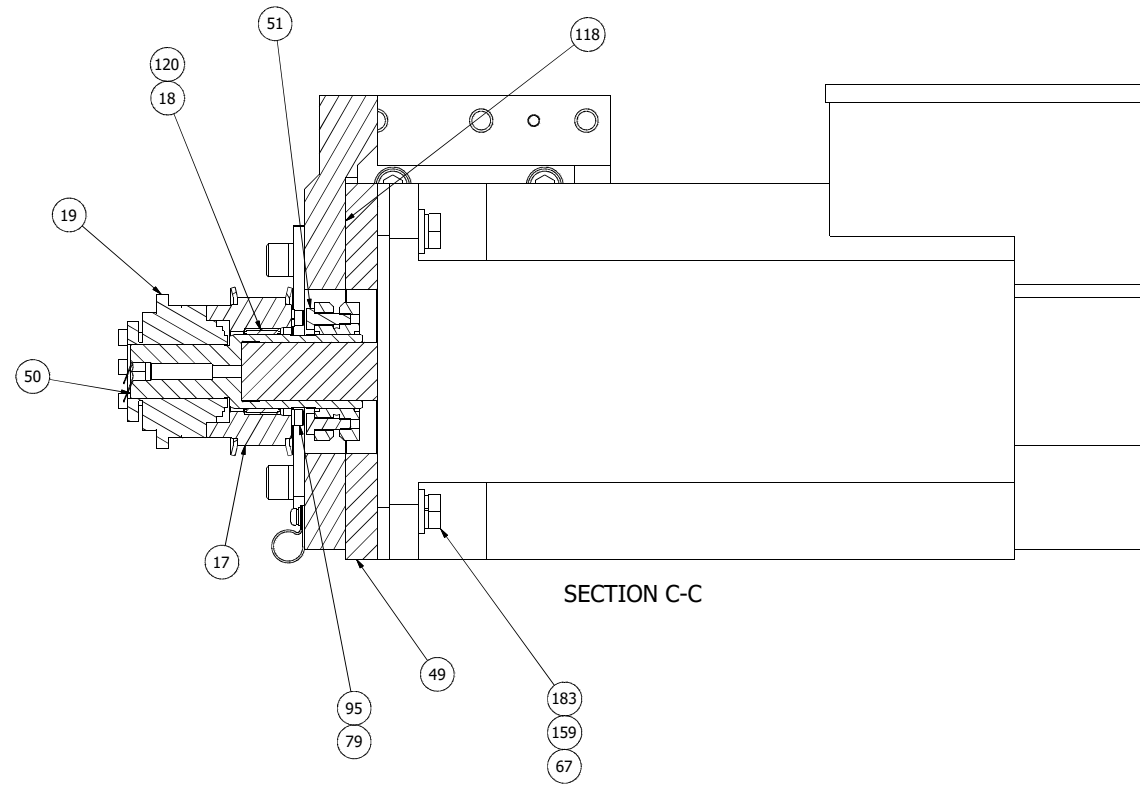


Y-AXIS TURRET WITH LIVE TOOLING  
DQ 000008YBMT

Turret Assembly, Y Axis with Live Tooling



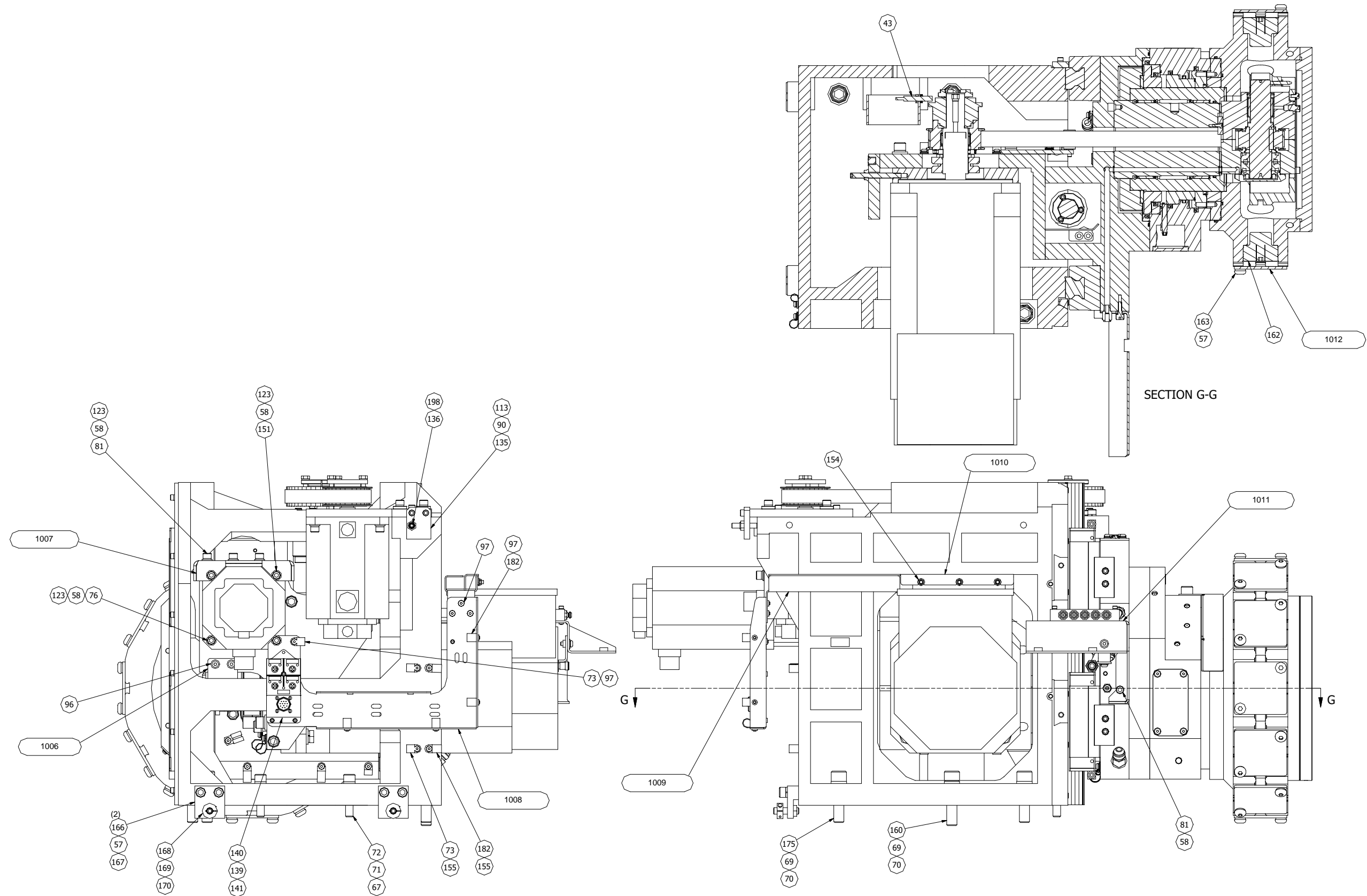
Y-AXIS TURRET WITH LIVE TOOLING  
DQ 000008YBMT



Y-AXIS TURRET WITH LIVE TOOLING  
DQ 000008YBMT



Turret Assembly, Y Axis with Live Tooling

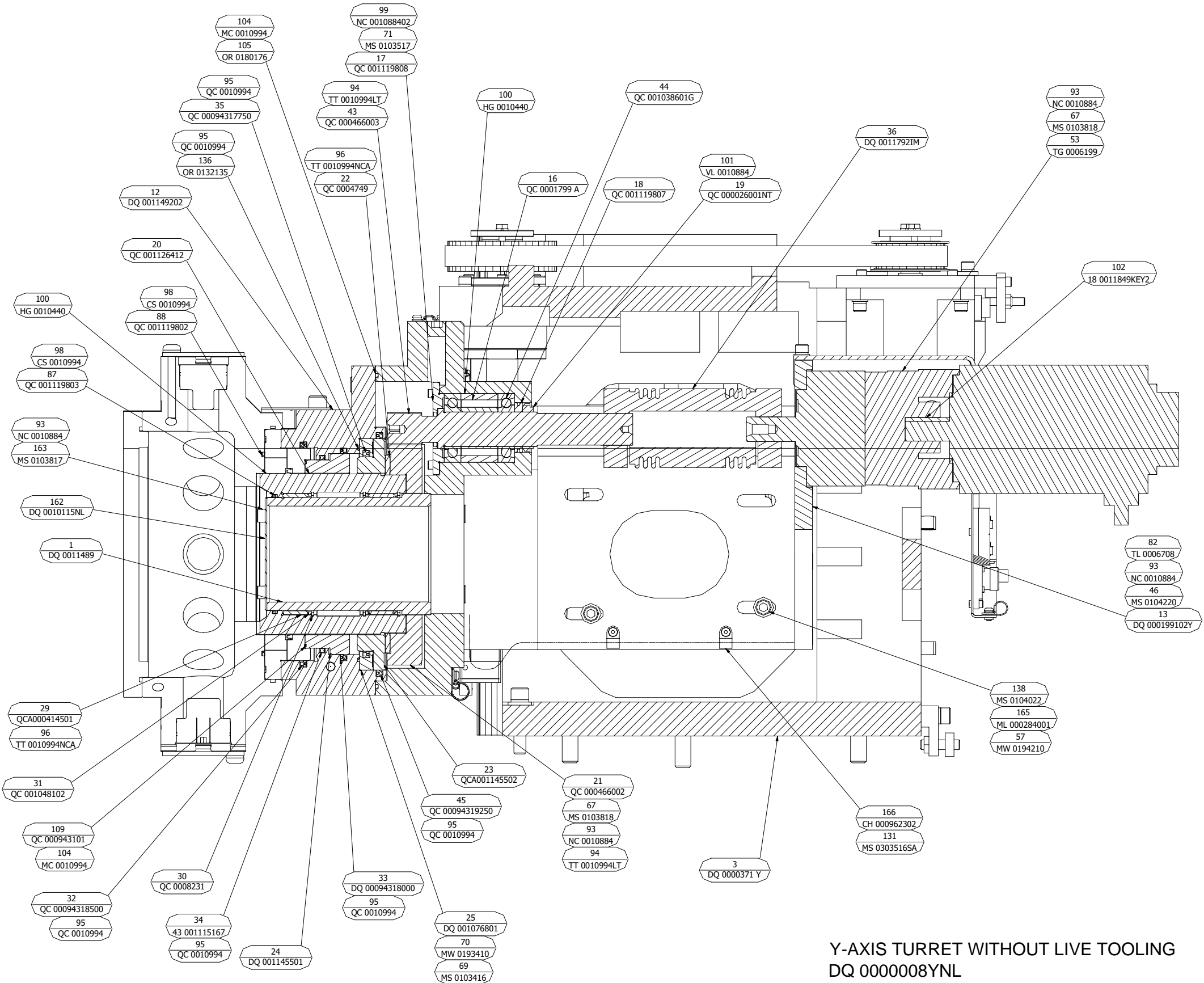


Y-AXIS TURRET WITH LIVE TOOLING  
DQ 000008YBMT

Turret Assembly, Y Axis with Live Tooling

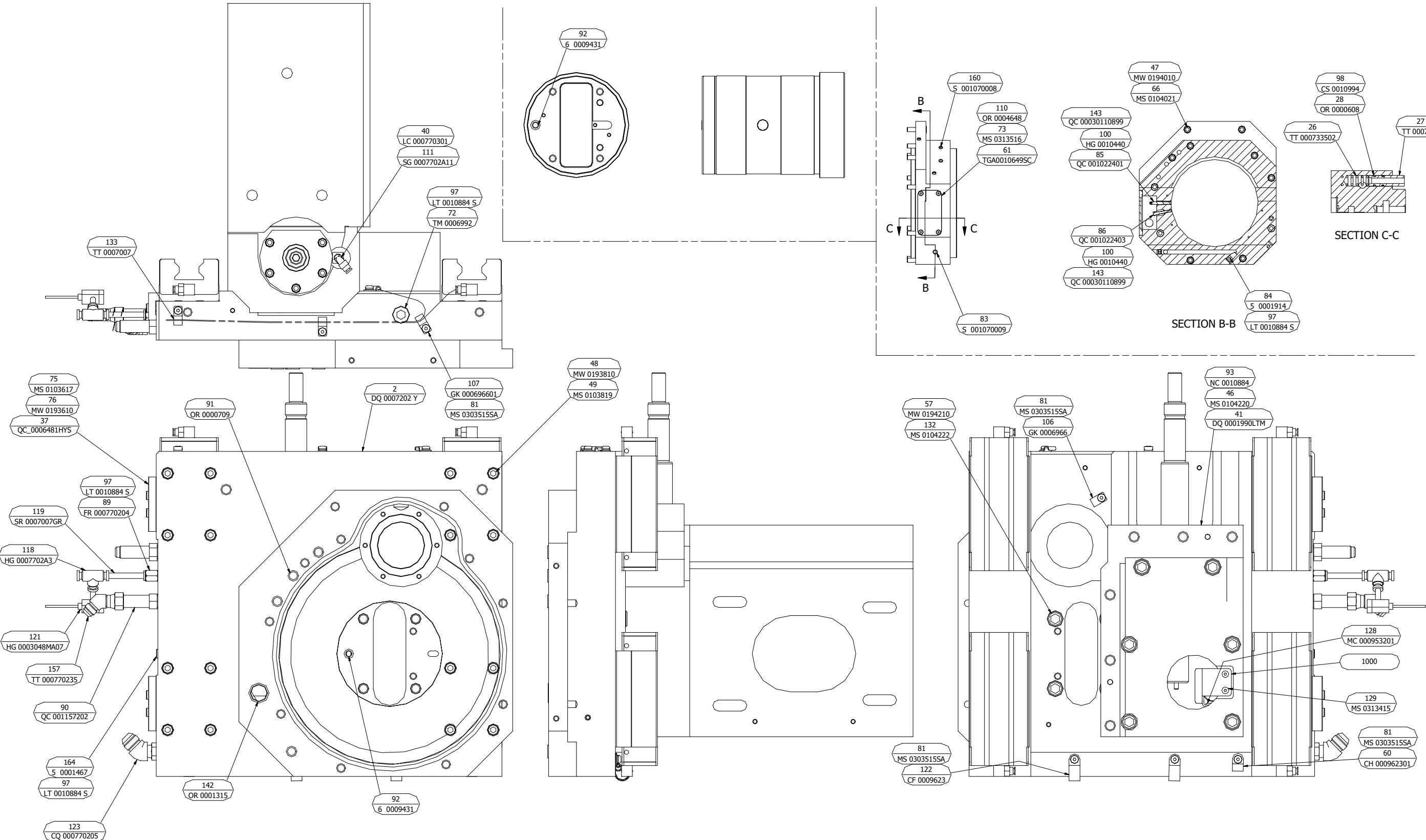
ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0011489	1	SUPPORT, BEARING	45	TT 000631701	1	KEY, MOTOR	89	MW 0163810	4	WASHER, M8 HEAVY
2	DQ 0007202 Y	1	SLIDE, Y-AXIS	46	SG 0007702 A10	4	CONNECTOR, MALE 4MMOD X1/8 BSP	90	MS 0103617	15	SCREW, SHC, M6X1X16MM
3	DQ 0000371 Y	1	CARRIAGE, Y-AXIS	47	LC 000770301	1	ADAPTER, ELBOW	91	MW 0193610	13	WASHER, LOCK, M6
4	DQ 0008316YR	1	Y-AXIS LINEAR GUIDEWAYS	48	DQ 0001990LTM	1	BRACKET, LIVE TOOL MOTOR	92	MS 0104018	1	SCREW, SHC, M10X1.5X20MM
5	DQ 0001902 Y	1	BALLSCREW, Y-AXIS	49	DQ 0001990MA	1	PLATE, MOTOR ADAPTER	93	MW 0104010 H	1	WASHER, FLAT, HARD, M10
6	CSA0004140	3	BEARING, BALL	50	DQ 000394801	1	SHAFT, LIVE TOOL MOTOR	94	MS 0103618	6	SCREW, SHC, M6X1X20MM
7	LPA0011176 X	1	HOUSING, BEARING	51	DQ 0010389	1	SLEEVE, CLAMPING	95	MS 0103525	6	SCREW, SHC, M5X0.8X55MM
8	CS 001119803	1	SEAL	52	LCB0011682	1	BUSHING	96	MS 0303617SA	4	SCREW ASSEMBLY, M6X1X16MM
9	CS 001119814	1	SEAL, LABYRINTH	53	QC 000466003	1	GEAR, INDEX DRIVE	97	MS 0303515SA	17	SCREW ASSEMBLY, BH M5X.8X10
10	LC 0011137	1	RETAINER, BEARING	54	QC 001038601G	1	BEARING PAIR, INDEX DRIVE	98	TL 0006708	2	DOWEL PIN, 1/4 X 1
11	CS 000026005	1	NUT, LOCK	55	QC 00094319250	1	SEAL, POLYPAK	99	MS 0553830	1	SCREW, SET, CUP, M8X1.25X80MM
12	DQ 001149202	1	HOUSING, TURRET PISTON	56	MS 0104220	12	SCREW, SHC, M12X1.75X30MM	100	S 001070008	4	LEE PLUG
13	DQ 000199102Y	1	PLATE, MOTOR MOUNT	57	MW 0194010	40	WASHER, LOCK, M10	101	S 001070009	1	LEE PLUG
14	TTA0001991 X	1	PLATE, MOTOR	58	MW 0193810	41	WASHER, LOCK, M8	102	5 0001914	1	PLUG, 1/4 PIPE
15	DQ 0003346 Y	1	BELT, Y-AXIS DRIVE	59	MS 0103819	20	SCREW, SHC, M8X1.25X25MM	103	QC 001022401	1	SWITCH, PROXIMITY 8MM X 50MM
16	DQ 0000144BM55	1	LIVE TOOL DRIVE ASSEMBLY	60	SR 000317728A	1	PULLEY, 28 TOOTH	104	QC 001022403	1	SWITCH, PROXIMITY
17	DQ 000317732MA	1	PULLEY, LIVE TOOL MOTOR	61	SR 000317744	1	PULLEY, 44 TOOTH	105	MS 0104217	1	SCREW, SHC, M12X1.75X16MM
18	DQ 000414501	1	BEARING, NEEDLE	62	SR 0011682	1	BUSHING	106	QC 001119803	1	LIP SEAL, INDEX SHAFT
19	DQA0012128LTG	1	TORQUE LIMITER, LIVE TOOLING	63	DQ 0007214BM55	1	TOOL DISC, 12 STATION	107	QC 001119801	1	LIP SEAL, RADIAL
20	QC 0001799 A	1	SPACER ASSEMBLY	64	QC 001179212S	1	COUPLING, 3 PIECE SET	108	QC 001119802	1	LIP SEAL, FACE
21	QC 001119808	1	LABYRINTH, INDEX DRIVE FRONT	65	TG 0006199	1	GEARBOX	109	FR 000770204	2	CONNECTOR, STRAIGHT MALE
22	QC 001119807	1	LABYRINTH, INDEX DRIVE REAR	66	TGA001022401	1	PROXIMITY SWITCH	110	QC 001157202	2	CONNECTOR, LONG
23	QC 000026001NT	1	LOCKNUT, M35 X 1.5	67	MW 0104210 H	8	WASHER, FLAT, HARD, M12	111	OR 0000709	4	O-RING
24	DQ 0003346LTY	1	BELT, LIVE TOOLING	68	DQ 0009001LT	1	SHIM, LIVE TOOL HOUSING	112	6 0009431	3	O-RING
25	QC 001126412	1	SHAFT, TURRET INDEX	69	CL 000284002	6	WASHER	113	NC 0010884	0.1	THREADLOCKER, LOCTITE 242
26	QC 000466002	1	GEAR, DRIVEN INDEX	70	MW 0194610	6	WASHER, LOCK, M16	114	TT 0010994LT	0.05	GREASE, NCA 152
27	QC 0004749	1	BEARING, THRUST	71	MW 0194210	10	WASHER, LOCK, M12	115	QC 0010994	0.1	GREASE, PARKER SUPER LUBE
28	QCA001145502	1	PISTON, TURRET REAR	72	MS 0104225	2	SCREW, SHC, M12X1.75X55MM	116	TT 0010994NCA	0.1	GREASE, NCA15
29	DQ 001145501	1	PISTON, TURRET FRONT	73	DVB0009623	3	CABLE CLAMP, 7/16	117	LT 0010884 S	0.1	SEALANT, PIPE
30	DQ 001076801	1	CAP, PISTON	74	CH 000962301	1	CLAMP, PLASTIC	118	CS 0010994	0.1	GREASE
31	TT 000733502	1	SPRING	75	TGA0010649SC	1	PLATE, SWITCH COVER	119	NC 001088402	0.1	THREADLOCKER, LOCTITE 222
32	TT 0007011	1	BUTTON, COOLANT	76	MS 0103820	34	SCREW, SHC, M8X1.25X30MM	120	HG 0010440	0.1	GREASE, ANTI-SIEZE, BLACK MOLLY
33	OR 0000608	2	O-RING	77	DQ 000648104	1	GIB, GUIDE RAIL	121	VL 0010884	0.1	THREADLOCKER, LOCTITE 277
34	QCA000414501	2	BEARING, NEEDLE INDEX SHAFT	78	MS 0103518	13	SCREW, SHC, M5X0.8X20MM	122	18 0011849KEY2	1	HALF KEY
35	QC 0008231	3	SNAP RING	79	MW 0193510	19	WASHER, LOCK, M5	123	MW 0103810	11	WASHER, FLAT, M8
36	QC 001048102	3	SPACER, BEARING	80	MS 0104021	11	SCREW, SHC, M10X1.5X35MM	124	MC 0010994	0.1	GREASE, SILICONE
37	QC 00094318500	1	SEAL, POLYPAK	81	MS 0103818	33	SCREW, SHC, M8X1.25X20MM	125	OR 0180176	1	O-RING
38	DQ 00094318000	1	SEAL, POLYPAK	82	MS 0103516	14	SCREW, SHC, M5X0.8X12MM	126	GK 0006966	2	CLAMP, HOSE 4 MM SINGLE
39	43 001115167	1	QUAD RING, 7.500 ID X 3/16 CS	83	MS 0103416	11	SCREW, SHC, M4X0.7X12MM	127	GK 000696601	3	CLAMP, HOSE 4MM DOUBLE
40	QC 00094317750	1	SEAL, POLYPAK	84	MW 0193410	12	WASHER, LOCK, M4	128	ML 0010994BS	0.1	GREASE, BALLSCREW SEAL
41	DQ 0011792IM	1	COUPLING, INDEX MOTOR	85	MS 0103517	6	SCREW, SHC, M5X0.8X16MM	129	DQ 0001990THG	1	GUIDE DISC
42	TG 000611502	1	KEY	86	TM 0006992	1	PIPE PLUG, 1/2 NPT	130	QC 000943101	1	O-RING, 7.139" ID X .072 CS
43	TT 001022403	1	SWITCH, PROXIMITY, 8MM W/ CON 0.6M	87	DQ 0009001TP	1	SHIM, TOP PLATE	131	OR 0004648	1	O-RING
44	QC 0006481HYS	2	CLAMP, TRUCK	88	MS 0313516	4	SCREW, FLT HD M5X.8X12MM	132	SG 0007702A11	1	ELBOW, 1/8 NPT

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
134	18 0011849KEY1	1	HALF KEY	178	MS 0103419	2	SCREW, SHC, M4X0.7X25MM
135	CS 0011292	1	ACTUATOR, SWITCH	179	DQ 0009995T1	2	SHIM, 0.001" GUIDE DISK
136	MS 0553822	1	SCREW, SET, CUP, M8X1.25X40MM	180	DQ 0009995T15	2	SHIM, 0.0015" GUIDE DISK
137	MN 0283810	1	NUT, SERRATED HEX FLANGE, M8X1.25	181	DQ 0011976 YT	1	BUMPER, BALL SCREW
138	MS 0103832	4	SCREW, SHC, M8X1.25X100MM	182	SBA0006966	6	CLAMP, PLASTIC
139	MS 0103415	3	SCREW, SHC, M4X0.7X10MM	183	MS 0294222	4	BOLT, M12 X 1.75 X 40 HEX 10.9GR
140	CQ 00120424SVP	1	INPUT/OUTPUT BLOCK, 4S POINT, V PLUG	184	MS 0553512	1	SCREW, SET, CUP, M5X.8X5
141	TT 0012042PG7	4	CONNECTOR, M ST 5P M12 PG7	185	CH 0004732	1	PLUG, BRASS
142	HG 0007702A3	1	TEE UNION 1/4 TUBE	186	DQ 0011976 YB	1	BUMPER, Y-AXIS LOWER
143	SR 0007007GR	1	TUBING 1/4" OD.FLEXIBLE	187	MS 0103519	3	SCREW, SHC, M5X0.8X25MM
144	TT 0010234	1	MANIFOLD ASSEMBLY, LUBRICATION	188	CK 000918824	11	FERRULE FOR 24 AWG
145	HG 0003048MA07	1	SWITCH, PRESSURE	189	DQ 0010526PT	1	BRACKET, IDLER
146	CF 0009623	6	CLAMP, PLASTIC	190	DQ 0010526BRG	4	BEARING
147	CQ 000770205	1	ELBOW, 45 DEGREE -8 JIC X -6 SAE	191	DQ 0010526SPR	4	SPACER, TURRET IDLER
148	DQA0001990YTS	1	SHEET METAL KIT, Y-AXIS TURRET	192	DQ 0010526ID	2	IDLER, TURRET
149	QCA0006481SHRT	1	GIB, GUIDE RAIL SHORT	193	DQ 00082310625	2	SNAP RING, TURRET IDLER
150	LC 000648101	3	GIB GUIDE RAIL	194	DQ 0007335W625	2	SPRING, 5/8" WAVE
151	MS 0103821	28	SCREW, SHC, M8X1.25X35MM	195	MS 0496419	2	SCREW, SOC HD SHLD 08/M6 X 25
152	MC 000953201	2	GROMMET	196	TT 000770235	1	ELBOW, 45 DEGREE -6 SWIVEL
153	MS 0313415	4	SCREW, FHC, M4 X 0.7 X 10MM	197	KL 000962302	1	CLAMP, CABLE - 3/8"
154	MN 0333510	3	NUT, PREVAILING LOCK M5 X 0.8	198	MN 0253810	1	LOCK, NUT M8
155	MS 0303516SA	8	SCREW ASSEMBLY, BH M5X.8X12	199	TG 0008316YP	26	PLUG, Y-AXIS LINEAR GUIDE
156	MS 0104224	4	SCREW, SHC, M12X1.75X50MM	1000	DQ 0010419BM55	-	COVER, TOP PLATE
157	MS 0104222	4	SCREW, SHC, M12X1.75X40MM	1001	DQ 0001990SWC	-	BRACKET, SWITCH CABLE
158	TT 0007007	140	TUBING, PLASTIC	1002	TG 0010115RTDC	-	COVER, RTD SENSOR
159	MW 0184210	4	WASHER, LOCK, M12	1003	QC 0011976YM	-	MOUNT, BALL SCREW BUMPER (Y-AXIS)
160	MS 0104625	1	SCREW, SHC, M16X2X55MM	1004	DQ 0001990TCB1	-	BRACKET, CLAMP
161	MC 0007011	20	TUBING, 3/8" OD BLACK NYLON	1005	DQ 0003990TP	-	DEFLECTOR, TOP PLATE
162	DQ 0011944P55	12	PLUG, BMT 55 TOP PLATE	1006	DQ 0001990TLS	-	BRACKET, TORQUE LIMITER SWITCH
163	MS 0304017	24	SCREW, BTHD M10X1.5X16MM	1007	CQ 0001990TMS1	-	STIFFENER, TURRET MOTOR
164	OR 0132135	1	O-RING	1008	DQ 0001990YWN3	-	BRACKET, Y-AXIS WIREWAY SUPPORT
165	MS 0303415SA	2	SCREW ASSEMBLY, M4X.7X10MM	1009	DQ 0001990YWN1	-	WIREWAY, Y-AXIS
166	CQ 0001990ALB	2	BLOCK, ALIGNMENT	1010	DQ 0001990YWN2	-	BRACKET, Y-AXIS WIREWAY DIVIDER
167	MS 0104022	4	SCREW, SHC, M10X1.5X40MM	1011	DQA0001990XCC	-	BRACKET, X-AXIS CABLE CARRIER
168	CQ 0001834	2	COLLAR, THREADED SHAFT	1012	DQ 0001990TSC	-	COVER, TOOL STATION
169	MS 0574022	2	SCREW, SOC. SET, FLT PT M10X1.50X40				
170	MN 0154010	2	NUT, JAM M10 X 1.5				
171	OR 0001315	1	O-RING				
172	QC 00030110899	2	CABLE, PROXIMITY SWITCH 10M				
173	DQ 0007007TC2	1	TUBE, TURRET				
174	DQ 0009623TC	1	CLAMP, HOSE				
175	MS 0104627	5	SCREW, SHC, M16X2X65MM				
176	0150616	4	SCREW, HEX HEAD 1/4"-20 x 1"				
177	CM 0002845	4	WASHER, LOCK 1/4"				

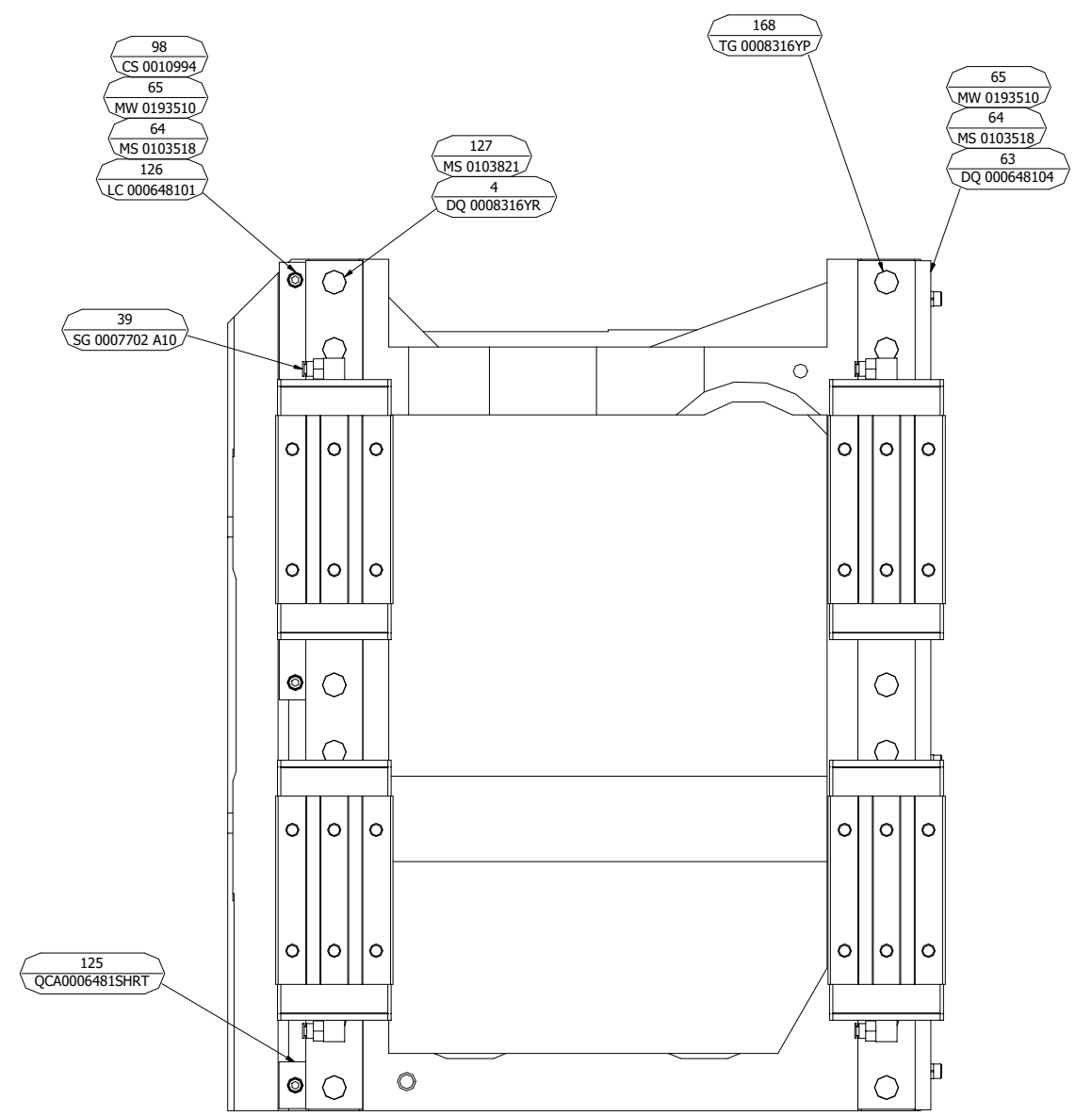
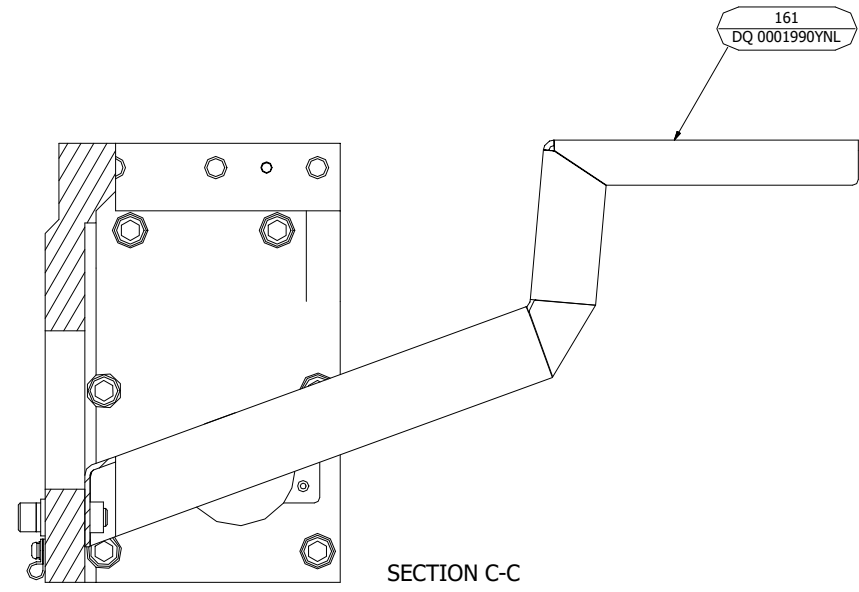


Y-AXIS TURRET WITHOUT LIVE TOOLING  
DQ 000008YNL

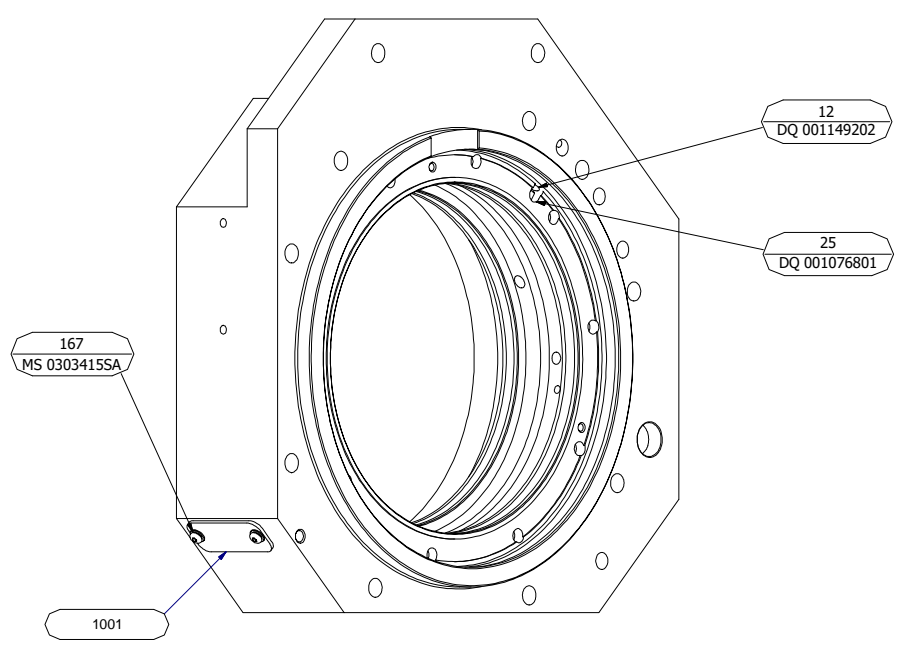


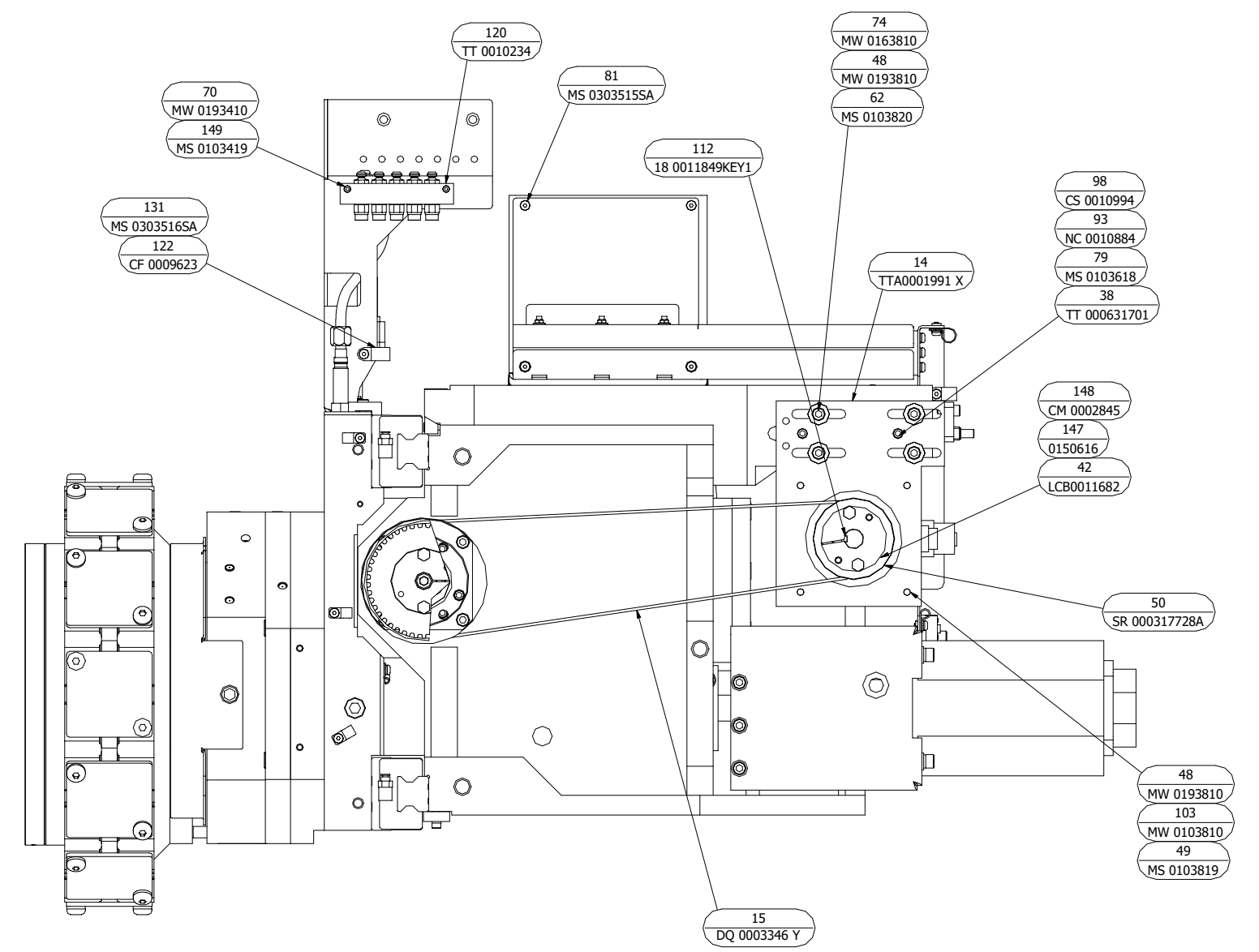
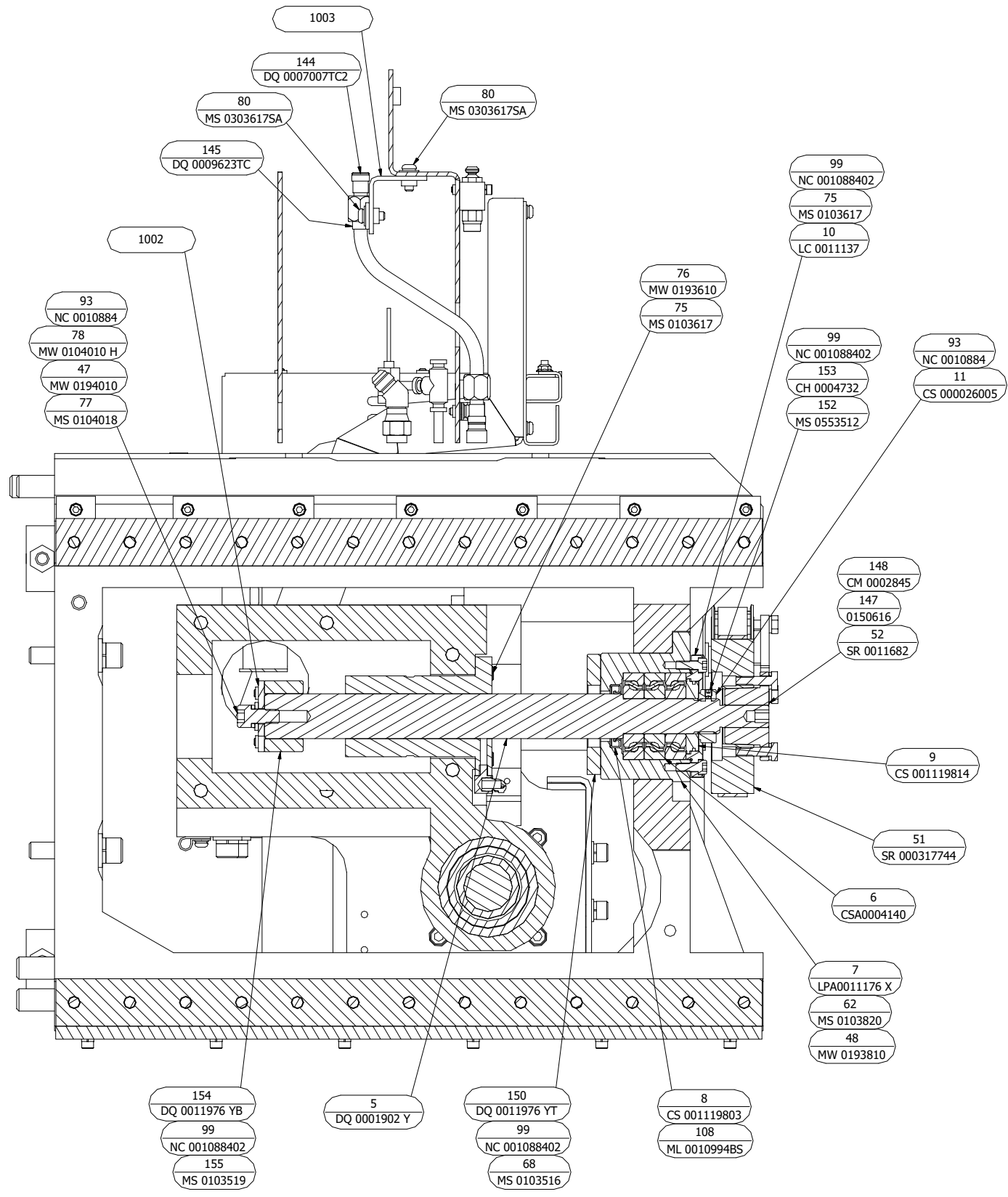


Y-AXIS TURRET WITHOUT LIVE TOOLING  
DQ 000008YNL

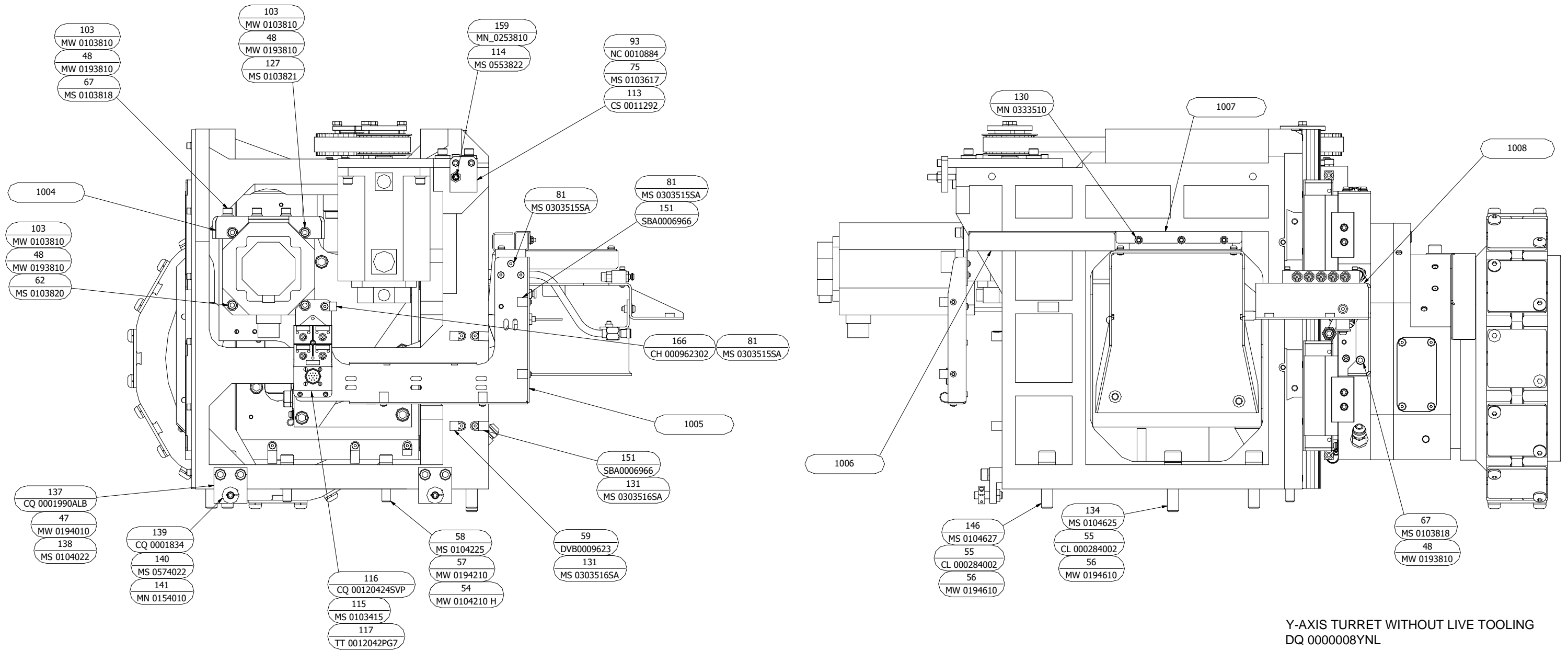


Y-AXIS TURRET WITHOUT LIVE TOOLING  
DQ 0000008YNL





Y-AXIS TURRET WITHOUT LIVE TOOLING  
DQ 000008YNL



Y-AXIS TURRET WITHOUT LIVE TOOLING  
DQ 000008YNL

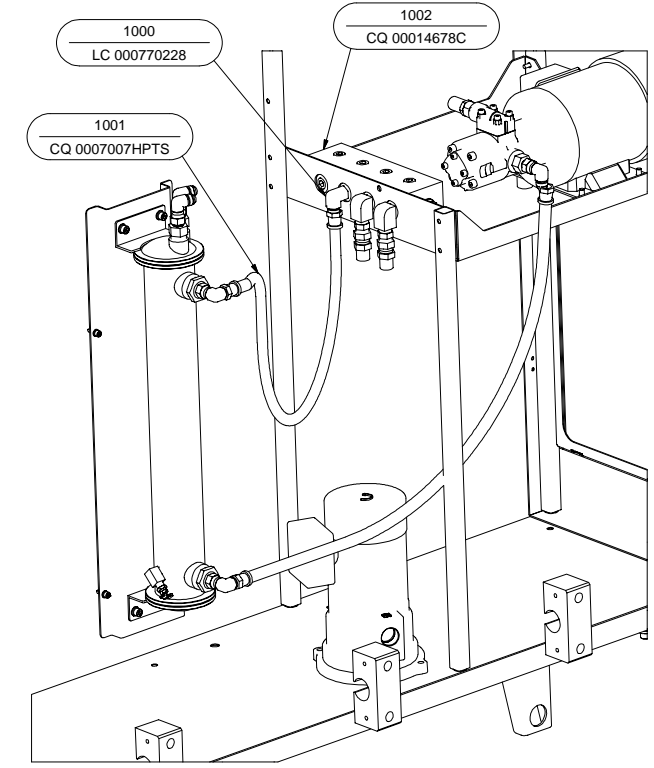
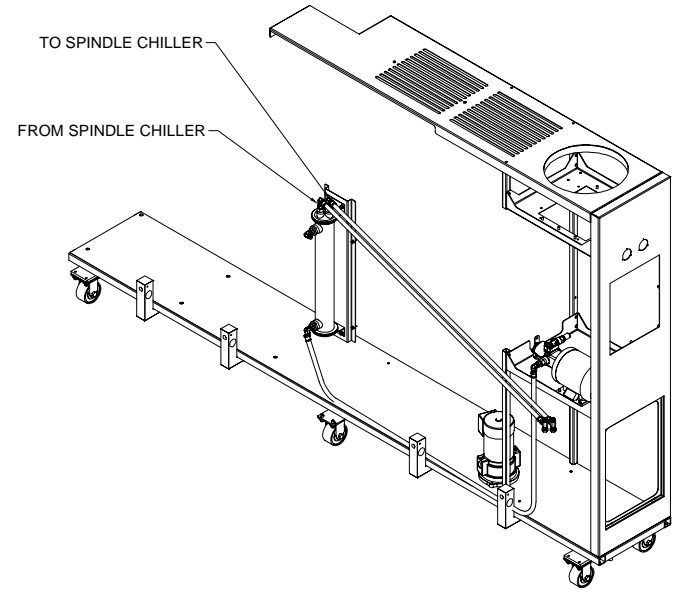
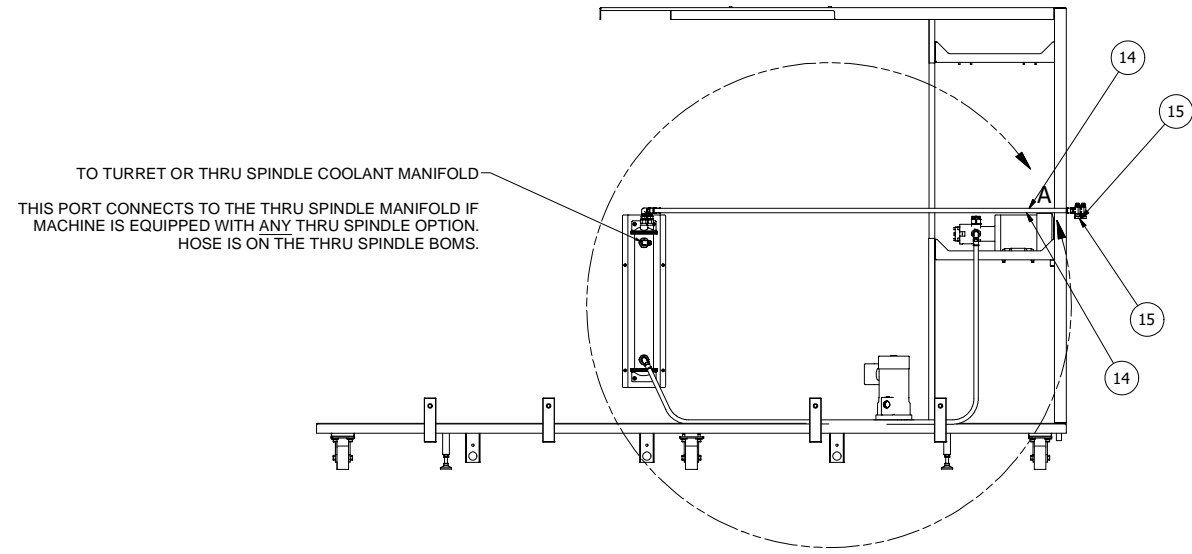
Turret Assembly, Y Axis without Live Tooling

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0011489	1	SUPPORT, BEARING
2	DQ 0007202 Y	1	SLIDE, Y-AXIS
3	DQ 0000371 Y	1	CARRIAGE, Y-AXIS
4	DQ 0008316YR	1	Y-AXIS LINEAR GUIDEWAYS
5	DQ 0001902 Y	1	BALLSCREW, Y-AXIS
6	CSA0004140	3	BEARING, BALL
7	LPA0011176 X	1	HOUSING, BEARING
8	CS 001119803	1	SEAL
9	CS 001119814	1	SEAL, LABYRINTH
10	LC 0011137	1	RETAINER, BEARING
11	CS 000026005	1	NUT, LOCK
12	DQ 001149202	1	HOUSING, TURRET PISTON
13	DQ 000199102Y	1	PLATE, MOTOR MOUNT
14	TTA0001991 X	1	PLATE, MOTOR
15	DQ 0003346 Y	1	BELT, Y-AXIS DRIVE
16	QC 0001799 A	1	SPACER ASSEMBLY
17	QC 001119808	1	LABYRINTH, INDEX DRIVE FRONT
18	QC 001119807	1	LABYRINTH, INDEX DRIVE REAR
19	QC 000026001NT	1	LOCKNUT, M35 x 1.5
20	QC 001126412	1	SHAFT, TURRET INDEX
21	QC 000466002	1	GEAR, DRIVEN INDEX
22	QC 0004749	1	BEARING, THRUST
23	QCA001145502	1	PISTON, TURRET REAR
24	DQ 001145501	1	PISTON, TURRET FRONT
25	DQ 001076801	1	CAP, PISTON
26	TT 000733502	1	SPRING
27	TT 0007011	1	BUTTON, COOLANT
28	OR 0000608	2	O-RING
29	QCA000414501	2	BEARING, NEEDLE INDEX SHAFT
30	QC 0008231	3	SNAP RING
31	QC 001048102	3	SPACER, BEARING
32	QC 00094318500	1	SEAL, POLYPAK
33	DQ 00094318000	1	SEAL, POLYPAK
34	43 001115167	1	QUAD RING, 7.500 ID x 3/16 CS
35	QC 00094317750	1	SEAL, POLYPAK
36	DQ 0011792IM	1	COUPLING, INDEX MOTOR
37	QC 0006481HYS	2	CLAMP, TRUCK
38	TT 000631701	1	KEY, MOTOR
39	SG 0007702 A10	4	CONNECTOR, MALE 4MMOD X1/8 BSP
40	LC 000770301	1	ADAPTER, ELBOW
41	DQ 0001990LTM	1	BRACKET, LIVE TOOL MOTOR
42	LCB0011682	1	BUSHING
43	QC 000466003	1	GEAR, INDEX DRIVE
44	QC 001038601G	1	BEARING PAIR, INDEX DRIVE

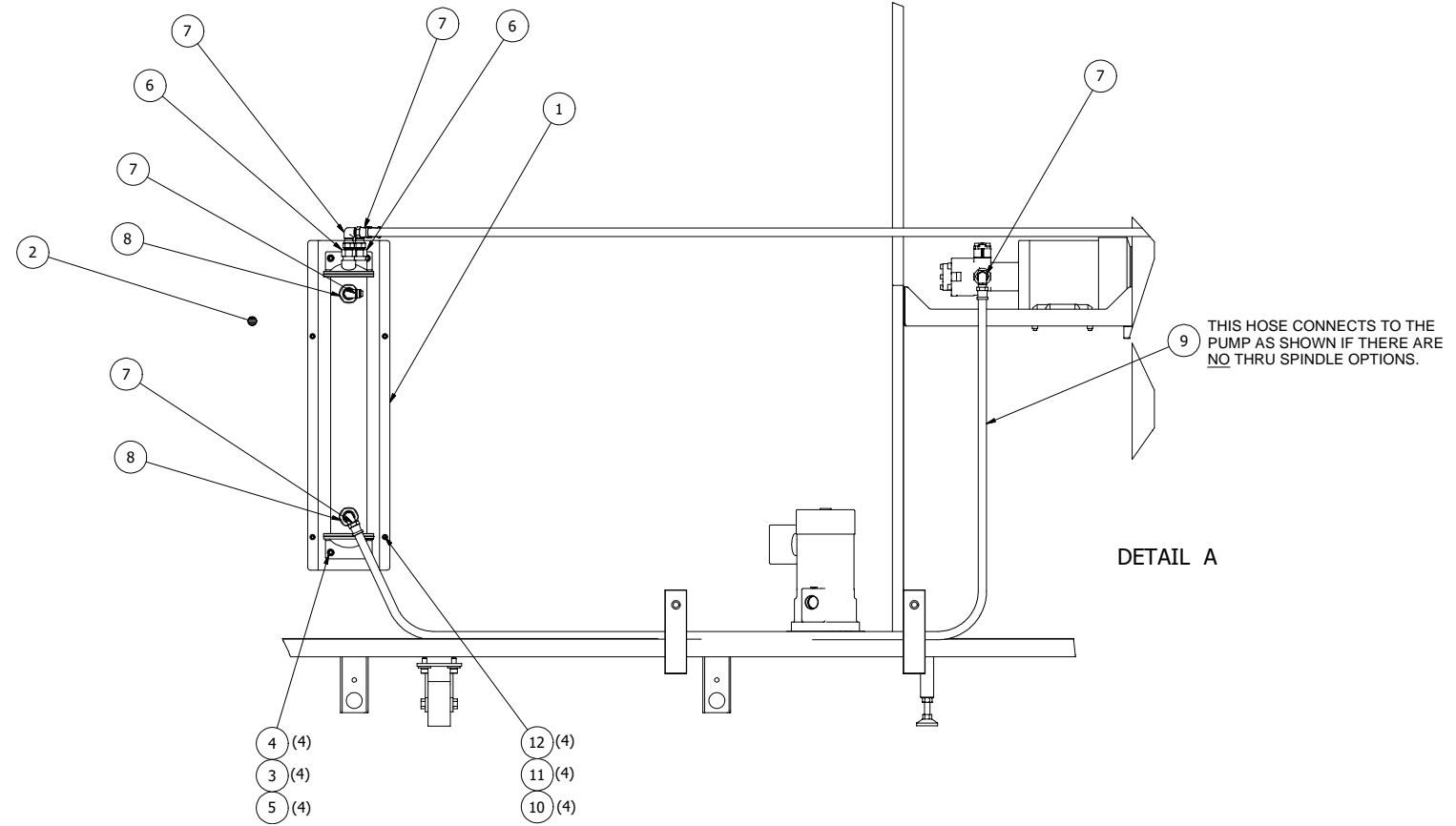
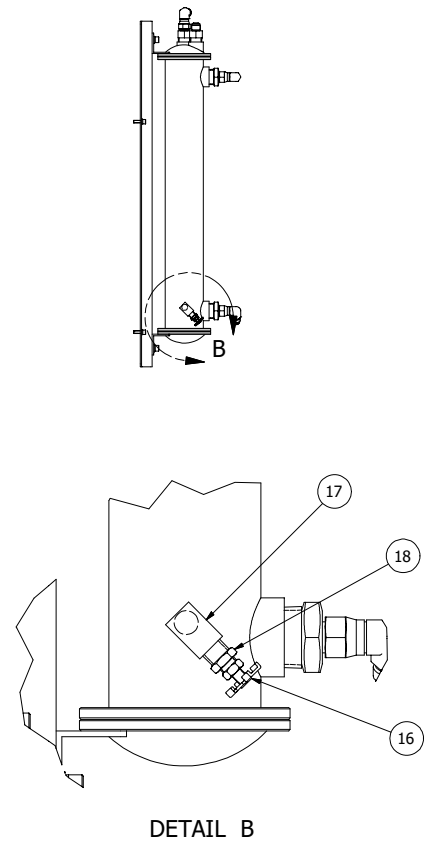
ITEM	PART NUMBER	QTY	DESCRIPTION
45	QC 00094319250	1	SEAL, POLYPAK
46	MS 0104220	12	SCREW, SHC, M12X1.75X30MM
47	MW 0194010	18	WASHER, LOCK, M10
48	MW 0193810	37	WASHER, LOCK, M8
49	MS 0103819	20	SCREW, SHC, M8X1.25X25MM
50	SR 000317728A	1	PULLEY, 28 TOOTH
51	SR 000317744	1	PULLEY, 44 TOOTH
52	SR 0011682	1	BUSHING
53	TG 0006199	1	GEARBOX
54	MW 0104210 H	2	WASHER, FLAT, HARD, M12
55	CL 000284002	6	WASHER
56	MW 0194610	6	WASHER, LOCK, M16
57	MW 0194210	6	WASHER, LOCK, M12
58	MS 0104225	2	SCREW, SHC, M12X1.75X55MM
59	DVB0009623	2	CABLE CLAMP, 7/16
60	CH 000962301	1	CLAMP, PLASTIC
61	TGA0010649SC	1	PLATE, SWITCH COVER
62	MS 0103820	10	SCREW, SHC, M8X1.25X30MM
63	DQ 000648104	1	GIB, GUIDE RAIL
64	MS 0103518	13	SCREW, SHC, M5X0.8X20MM
65	MW 0193510	13	WASHER, LOCK, M5
66	MS 0104021	11	SCREW, SHC, M10X1.5X35MM
67	MS 0103818	21	SCREW, SHC, M8X1.25X20MM
68	MS 0103516	2	SCREW, SHC, M5X0.8X12MM
69	MS 0103416	10	SCREW, SHC, M4X0.7X12MM
70	MW 0193410	12	WASHER, LOCK, M4
71	MS 0103517	6	SCREW, SHC, M5X0.8X16MM
72	TM 0006992	1	PIPE PLUG, 1/2 NPT
73	MS 0313516	4	SCREW, FLT HD M5x.8x12MM
74	MW 0163810	4	WASHER, M8 HEAVY
75	MS 0103617	15	SCREW, SHCS, M6X1X16MM
76	MW 0193610	9	WASHER, LOCK, M6
77	MS 0104018	1	SCREW, SHC, M10X1.5X20MM
78	MW 0104010 H	1	WASHER, FLAT, HARD, M10
79	MS 0103618	2	SCREW, SHC, M6X1X20MM
80	MS 0303617SA	2	SCREW ASSEMBLY, M6X1X16MM
81	MS 0303515SA	19	SCREW ASSEMBLY, BH M5X.8X10
82	TL 0006708	2	DOWEL PIN, 1/4 X 1
83	S 001070009	1	LEE PLUG
84	5 0001914	1	PLUG, 1/4 PIPE
85	QC 001022401	1	SWITCH, PROXIMITY 8MM X 50MM
86	QC 001022403	1	SWITCH, PROXIMITY
87	QC 001119803	1	LIP SEAL, INDEX SHAFT
88	QC 001119802	1	LIP SEAL, FACE

Turret Assembly, Y Axis without Live Tooling

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
89	FR 000770204	1	CONNECTOR ,STRAIGHT MALE	133	TT 0007007	140	TUBING, PLASTIC
90	QC 001157202	2	CONNECTOR, LONG	134	MS 0104625	1	SCREW, SHC, M16X2X55MM
91	OR 0000709	4	O-RING	136	OR 0132135	1	O-RING
92	6 0009431	2	O-RING	137	CQ 0001990ALB	2	BLOCK, ALIGNMENT
93	NC 0010884	0.1	THREADLOCKER, LOCTITE 242	138	MS 0104022	6	SCREW, SHC, M10X1.5X40MM
94	TT 0010994LT	0.05	GREASE, NCA 152	139	CQ 0001834	2	COLLAR, THREADED SHAFT
95	QC 0010994	0.1	GREASE, PARKER SUPER LUBE	140	MS 0574022	2	SCREW, SOC. SET, FLAT POINT M10X1.50X40MM
96	TT 0010994NCA	0.1	GREASE, NCA15	141	MN 0154010	2	NUT, JAM M10 X 1.5
97	LT 0010884 S	0.1	SEALANT, PIPE	142	OR 0001315	1	O-RING
98	CS 0010994	0.1	GREASE	143	QC 00030110899	2	CABLE, PROXIMITY SWITCH 10M
99	NC 001088402	0.1	THREADLOCKER, LOCTITE 222	144	DQ 0007007TC2	1	TUBE, TURRET
100	HG 0010440	0.1	GREASE, ANTI-SIEZE, BLACK MOLLY	145	DQ 0009623TC	1	CLAMP, HOSE
101	VL 0010884	0.1	THREADLOCKER, LOCTITE 277	146	MS 0104627	5	SCREW, SHC, M16X2X65MM
102	18 0011849KEY2	1	HALF KEY	147	0150616	4	SCREW, HEX HEAD 1/4"-20 x 1"
103	MW 0103810	11	WASHER, FLAT, M8	148	CM 0002845	4	WASHER, 1/4" LOCK
104	MC 0010994	0.1	GREASE, SILICONE	149	MS 0103419	2	SCREW, SHC, M4X0.7X25MM
105	OR 0180176	1	O-RING	150	DQ 0011976 YT	1	BUMPER, BALL SCREW
106	GK 0006966	1	CLAMP, HOSE 4 MM SINGLE	151	SBA0006966	6	CLAMP, PLASTIC
107	GK 000696601	3	CLAMP, HOSE 4MM DOUBLE	152	MS 0553512	1	SCREW, SET, CUP, M5X.8X5
108	ML 0010994BS	0.1	GREASE, BALLSCREW SEAL	153	CH 0004732	1	PLUG, BRASS
109	QC 000943101	1	O-RING, 7.139" ID x .072 CS	154	DQ 0011976 YB	1	BUMPER, Y-AXIS LOWER
110	OR 0004648	1	O-RING	155	MS 0103519	3	SCREW, SHC, M5X0.8X25MM
111	SG 0007702A11	1	ELBOW, 1/8 NPT	156	CK 000918824	8	FERRULE FOR 24 AWG
112	18 0011849KEY1	1	HALF KEY	157	TT 000770235	1	ELBOW, 45 DEG -6 SWIVEL
113	CS 0011292	1	ACTUATOR, SWITCH	159	MN 0253810	1	LOCKNUT, M8
114	MS 0553822	1	SCREW, SET, CUP, M8X1.25X40MM	160	S 001070008	4	LEE PLUG
115	MS 0103415	3	SCREW, SHC, M4X0.7X10MM	161	DQ 0001990YNL	1	BRACKET, Y-AXIS LESS LIVE TOOL
116	CQ 00120424SVP	1	INPUT/OUTPUT BLOCK, 4S POINT, V PLUG	162	DQ 0010115NL	1	COVER, NON-LIVE TOOL
117	TT 0012042PG7	4	CONNECTOR, M ST 5P M12 PG7	163	MS 0103817	4	SCREW, SHC, M8X1.25X16MM
118	HG 0007702A3	1	TEE UNION 1/4 TUBE	164	5 0001467	1	PLUG, 1/8 NPT
119	SR 0007007GR	1	TUBING, 1/4" OD. FLEXIBLE	165	ML 000284001	2	WASHER, FLAT 3/8 L9 HARDENED
120	TT 0010234	1	MANIFOLD ASSEMBLY, LUBRICATION	166	CH 000962302	3	CABLE CLAMP, 5/16
121	HG 0003048MA07	1	SWITCH, PRESSURE	167	MS 0303415SA	2	SCREW ASSEMBLY, M4X.7X10MM
122	CF 0009623	3	CLAMP, PLASTIC	168	TG 0008316YP	26	PLUG, Y-AXIS LINEAR GUIDE
123	CQ 000770205	1	ELBOW, 45 DEG -8 JIC X -6 SAE	1000	DQ 0001990SWC	-	BRACKET, SWITCH CABLE
124	DQA0001990YTS	1	SHEET METAL KIT, Y-AXIS TURRET SUB-ASSEMBLY	1001	TG 0010115RTDC	-	COVER, RTD SENSOR
125	QCA0006481SHRT	1	GIB, GUIDE RAIL SHORT	1002	QC 0011976YM	-	MOUNT, BALL SCREW BUMPER (Y-AXIS)
126	LC 000648101	3	GIB, GUIDE RAIL	1003	DQ 0001990TCB1	-	BRACKET, CLAMP
127	MS 0103821	28	SCREW, SHC, M8X1.25X35MM	1004	CQ 0001990TMS1	-	STIFFENER, TURRET MOTOR
128	MC 000953201	2	GROMMET	1005	DQ 0001990YWN3	-	BRACKET, Y-AXIS WIREWAY SUPPORT
129	MS 0313415	2	SCREW, FHC, M4 X 0.7 X 10MM	1006	DQ 0001990YWN1	-	WIREWAY, Y-AXIS
130	MN 0333510	3	NUT, PREVAILING LOCK M5 X 0.8	1007	DQ 0001990YWN2	-	BRACKET, Y-AXIS WIREWAY DIVIDER
131	MS 0303516SA	7	SCREW ASSEMBLY, BH M5X.8X12	1008	DQA0001990XCC	-	BRACKET, X-AXIS CABLE CARRIER
132	MS 0104222	4	SCREW, SHC, M12X1.75X40MM				



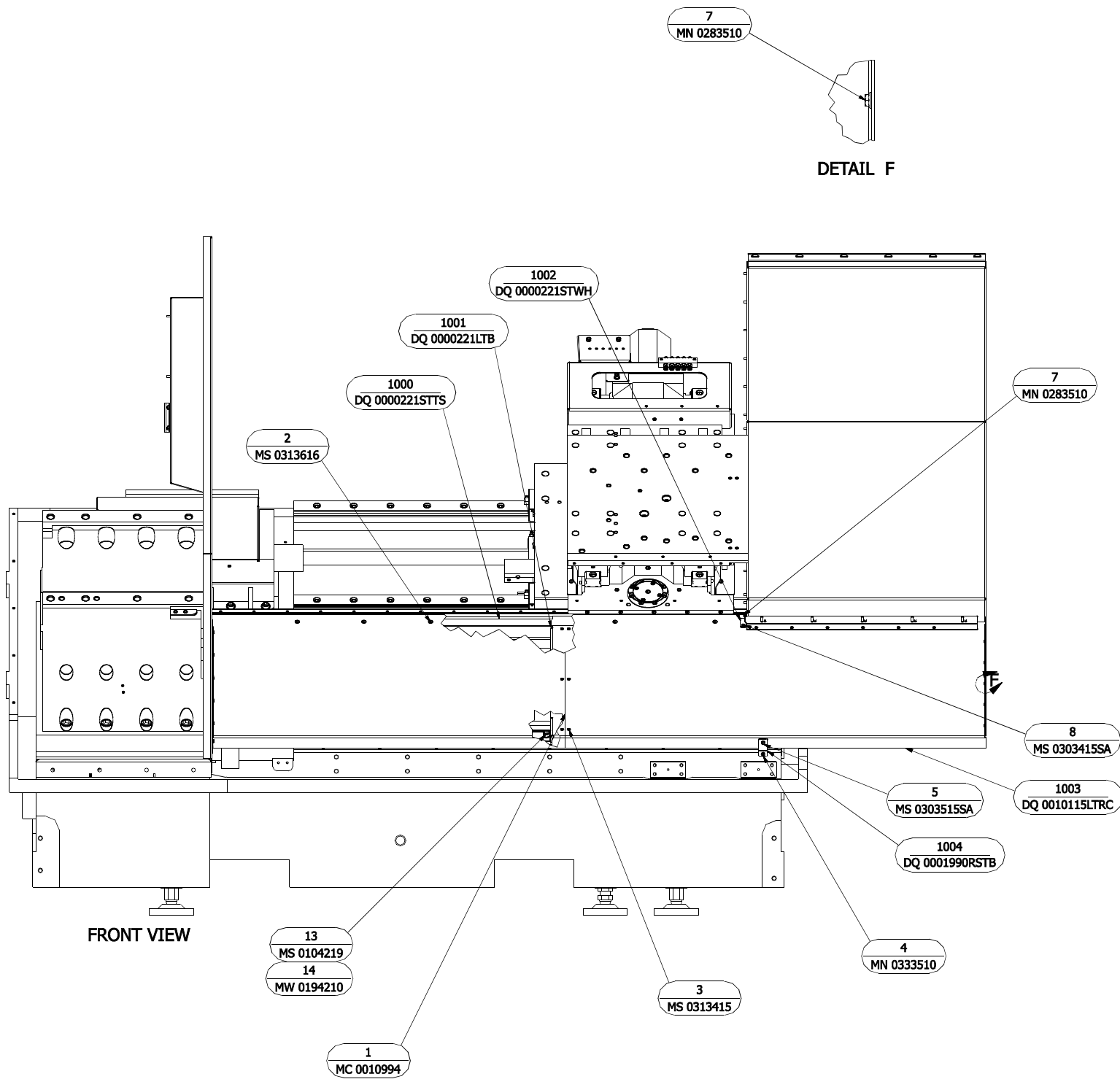
ONLY FOR THRU SPINDLE COOLANT HP MACHINES



UNIQUE PARTS, HIGH PERFORMANCE LATHE  
DQ 0000400HP

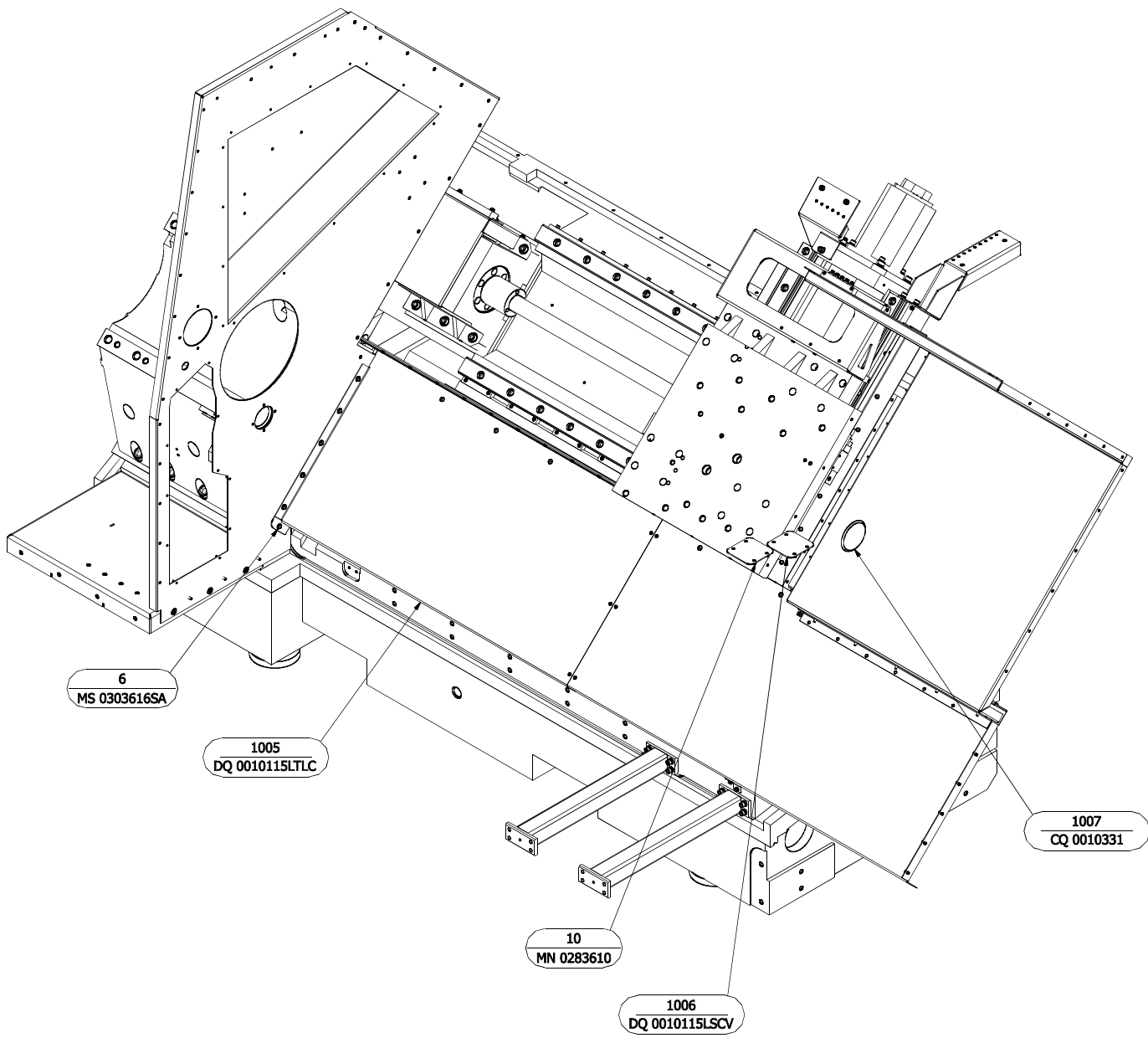
ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQ 0001990HEP	1	PLATE, HEAT EXCHANGER
2	CQ 0011555HP	1	HEAT EXCHANGER, COOLANT
3	MW 0193810	4	WASHER, LOCK, M8
4	MW 0103810	4	WASHER, FLAT, M8
5	MS 0103817	4	SCREW, SHC, M8X1.25X16MM
6	AX 000770305	2	ADAPTER, 3/4NPT -8 JIC
7	CS 000838406	5	ELBOW, 90 DEGREE -8 SWIVEL
8	XR 0008388	2	ADAPTER, 8-16 STRAIGHT MALE
9	DQ 0007007HPPH	1	HOSE, 1/2 ID CHILLER
10	MW 0103610	4	WASHER, FLAT, M6
11	MW 0193610	4	WASHER, LOCK, M6
12	MS 0103618	4	SCREW, SHC, M6X1X20MM
13	SB 0010884 S	0.1 cc	SEALANT, HYDRAULIC THREAD
14	CQ 0007007HPCH	2	HOSE, 1/2 ID SUB CHILLER
15	CQ 000770209	2	RUN TEE, -8 JIC SWIVEL NUT
16	AH 0011552	1	1/8 DRAIN COCK
17	AO 0010786	1	ELBOW, STREET
18	AUA0010785	1	BUSHING, 1/4"M X 1/8"F HEX
1000	LC 000770228	-	ELBOW 1/2 NPT-1/2 JIC
1001	CQ 0007007HPTS	-	HOSE, HP THRU SPINDLE
1002	CQ 00014678C	-	CAP, PIPE





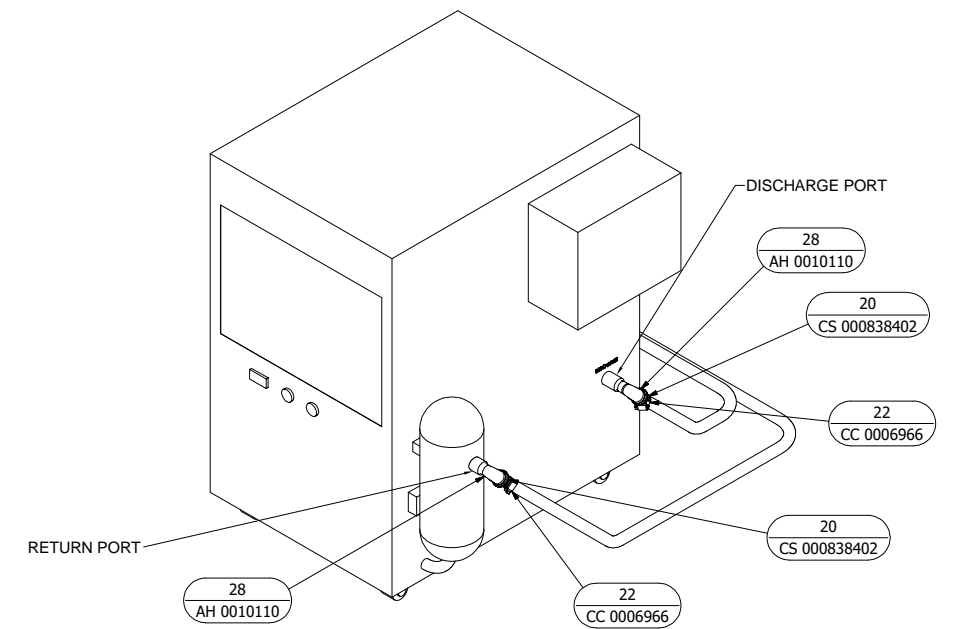
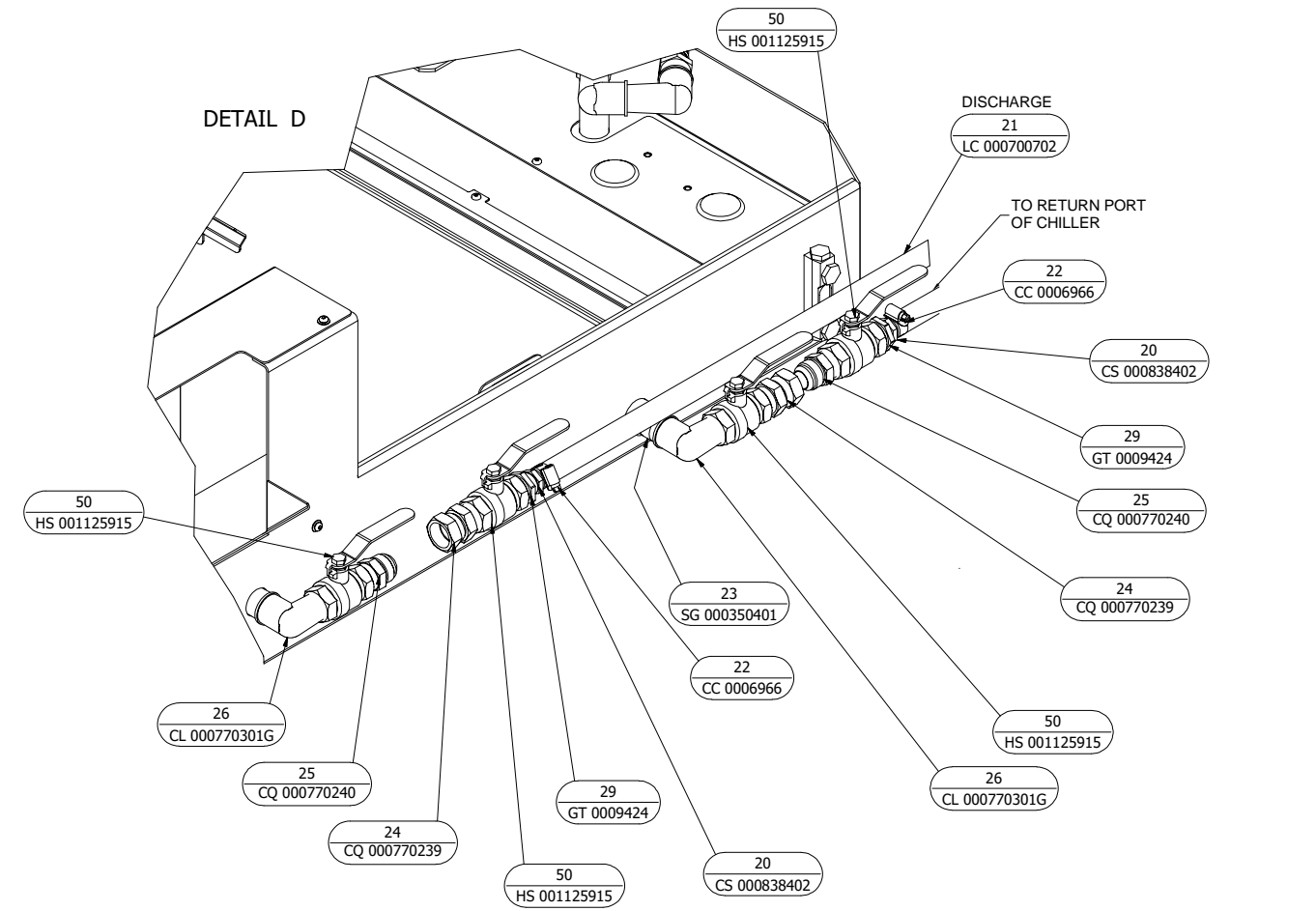
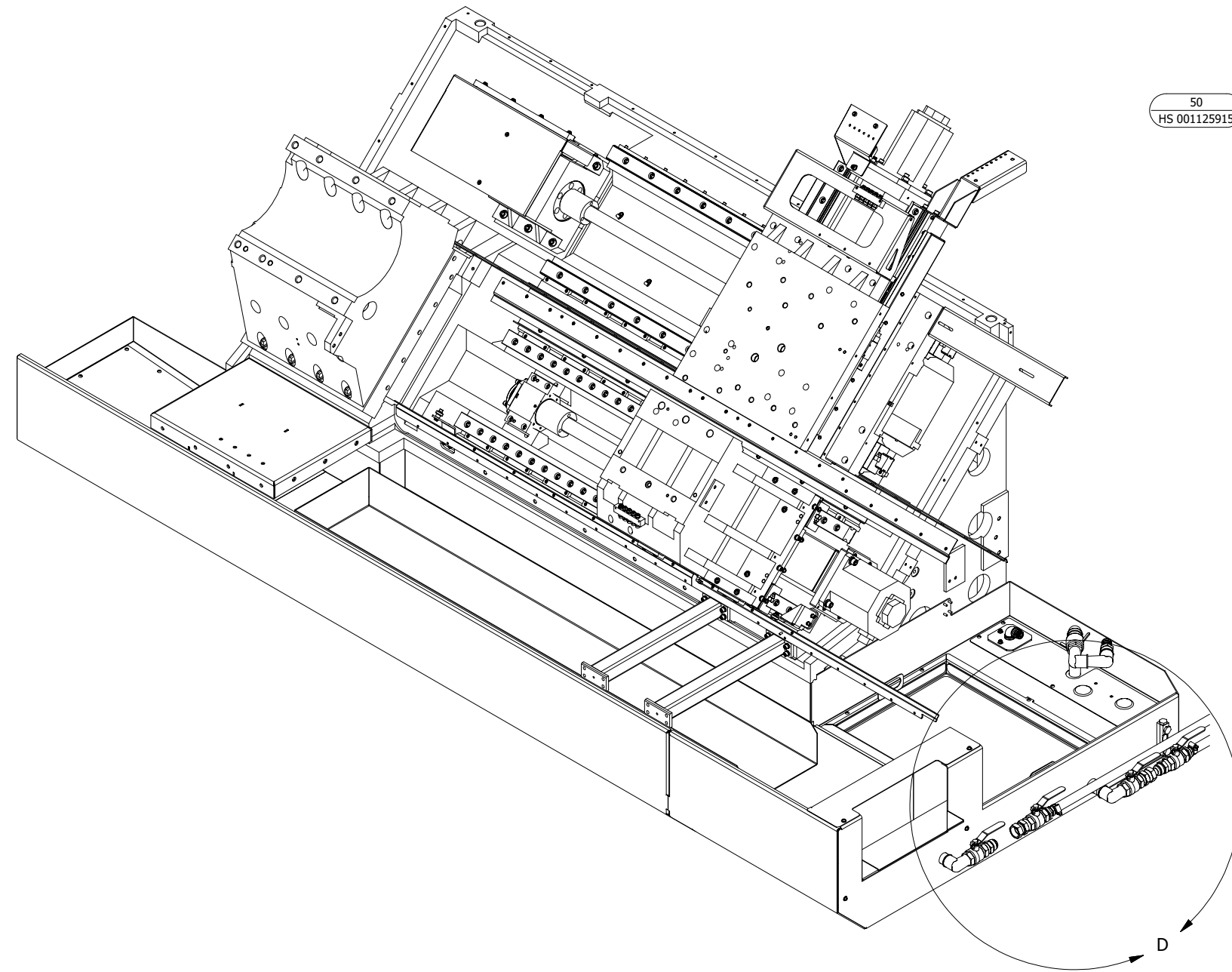
DETAIL F

7 MN 0283510

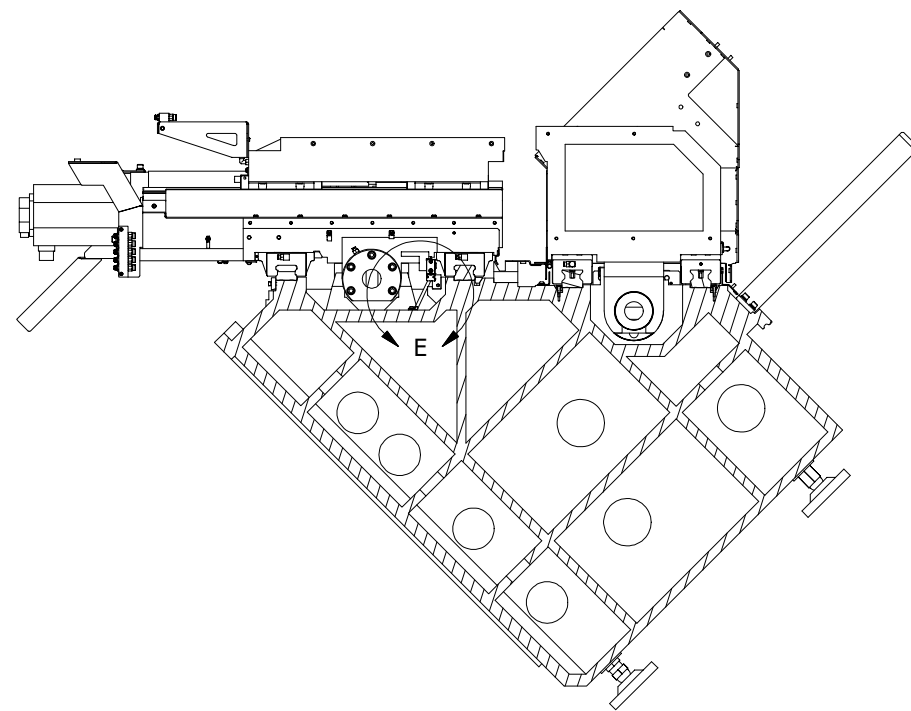


UNIQUE PARTS, MACHINE WITHOUT TAILSTOCK OR SUB-SPINDLE DQ 0000400LT

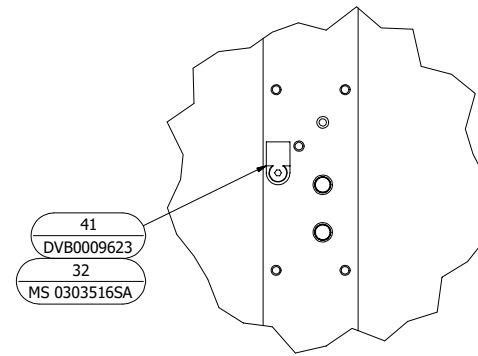
ITEM	PART NUMBER	QTY	DESCRIPTION
1	MC 0010994	.1	GREASE, SILICONE
2	MS 0313616	5	SCREW, FHD SOC, M6 X 1.0 X 12
3	MS 0313415	6	SCREW, FHC, M4 X 0.7 X 10MM
4	MN 0333510	1	NUT, PREVAILING LOCK M5 X 0.8
5	MS 0303515SA	1	SCREW ASSEMBLY, BH M5X.8X10
6	MS 0303616SA	6	SCREW ASSEMBLY, 6MX1X12MM
7	MN 0283510	6	NUT, SERRATED HEX FLANGE, M5X0.8
8	MS 0303415SA	1	SCREW ASSEMBLY, M4X.7X10MM
9	DQ 0010115SLT	1	KIT, LESS TAILSTOCK
10	MN 0283610	8	NUT, SERRATED HEX FLANGE, M6X1
11	CQ 00030101560	1	CABLE WITHOUT WIRE
12	CL 001204210	2	PLUG, HYDRAULIC MANIFOLD
13	MS 0104219	4	SCREW, SHC, M12X1.75X25MM
14	MW 0194210	4	WASHER, LOCK, M12
1000	DQ 0000221STTS	-	SPACER
1001	DQ 0000221LTB	-	BRACKET
1002	DQ 0000221LTWH	-	STIFFENER
1003	DQ 0010115LTRC	-	COVER
1004	DQ 0001990RSTB	-	BRACKET, REAR STATIONARY
1005	DQ 0010115LTLC	-	COVER
1006	DQ 0010115LSCV	-	COVER, LESS GORETUBE
1007	CQ 0010331	-	PLUG, CAP



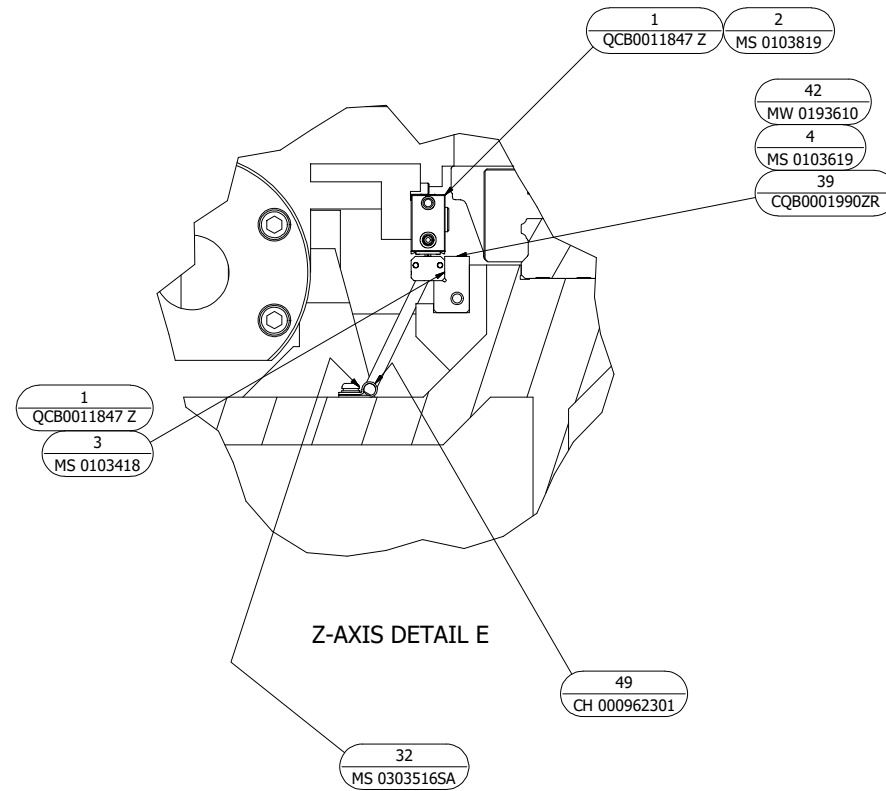
UNIQUE PARTS, SUPER-PRECISION MACHINE  
DQ 000400SP



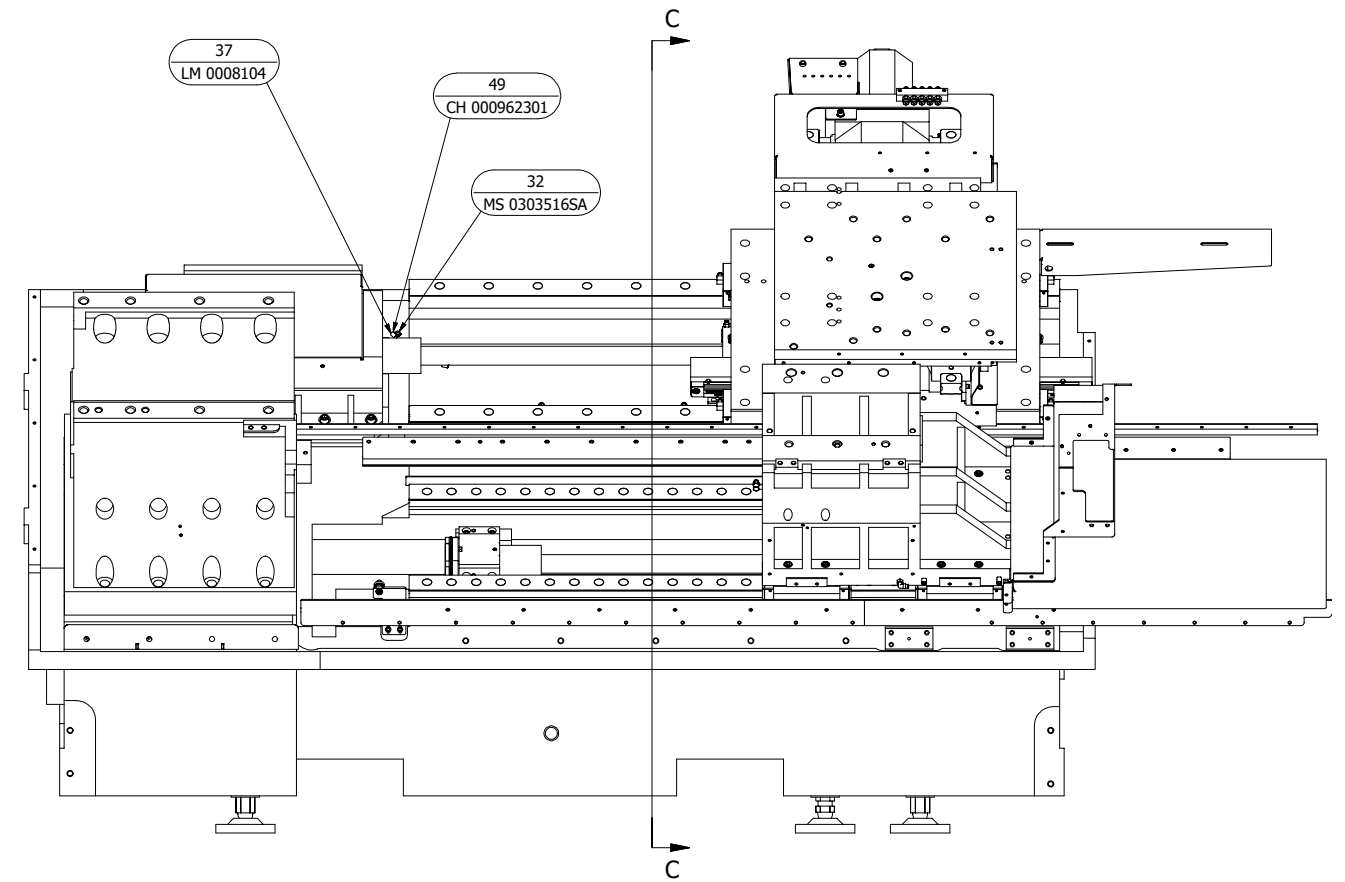
SECTION C-C



BASE CHILLER SENSOR CLAMP  
(CENTER RIB ON BASE)



Z-AXIS DETAIL E

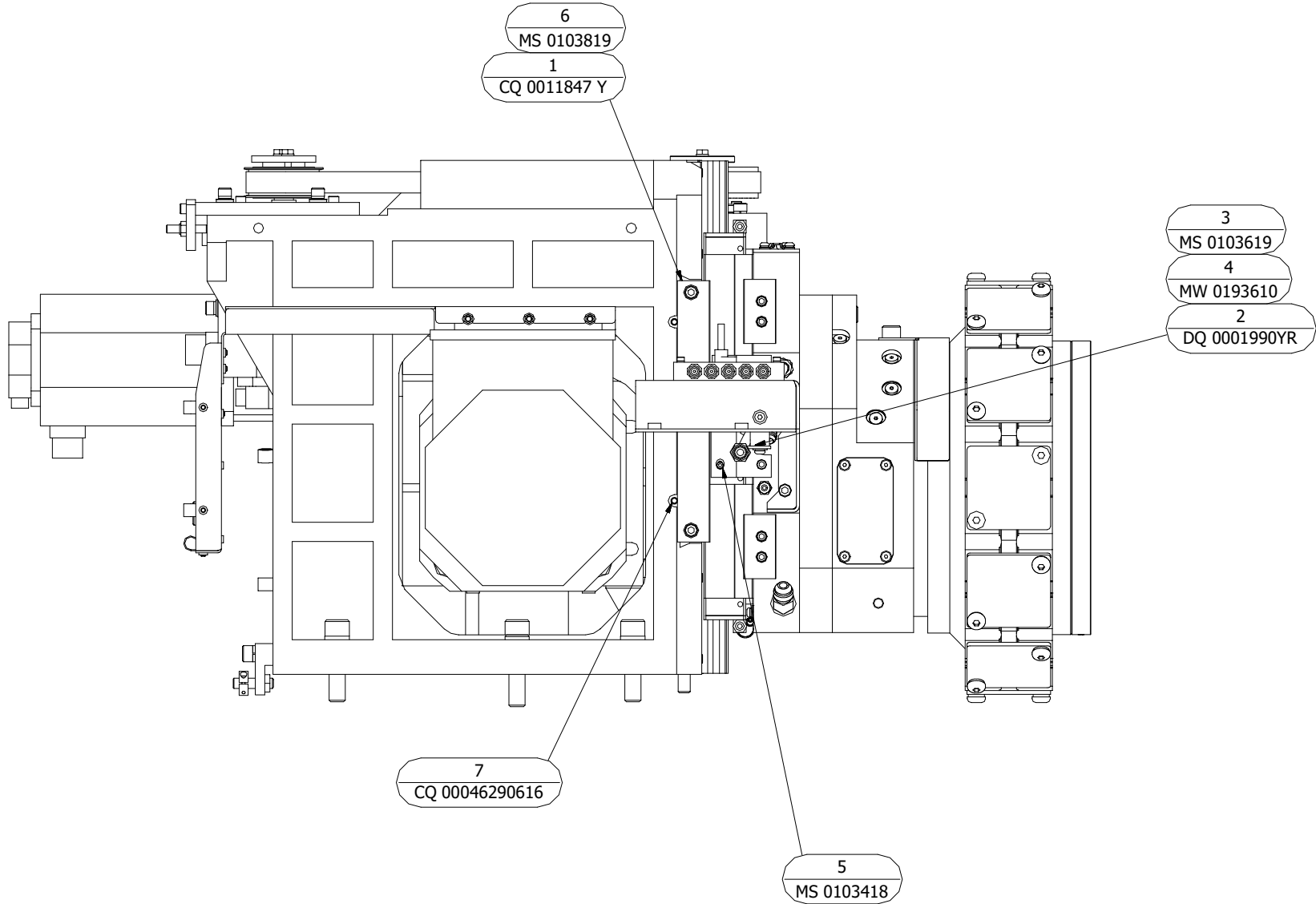


UNIQUE PARTS, SUPER-PRECISION MACHINE  
DQ 0000400SP

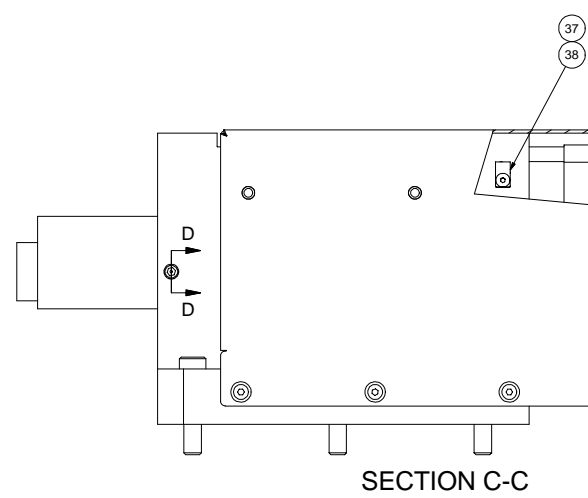
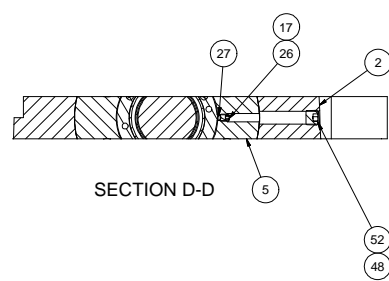
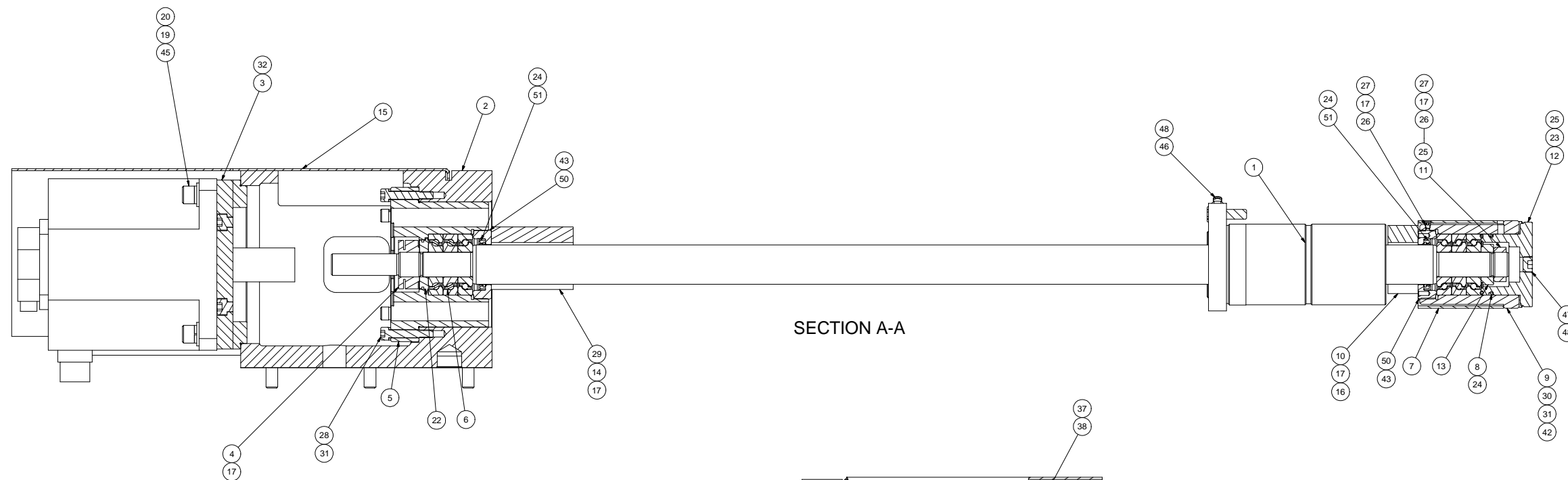
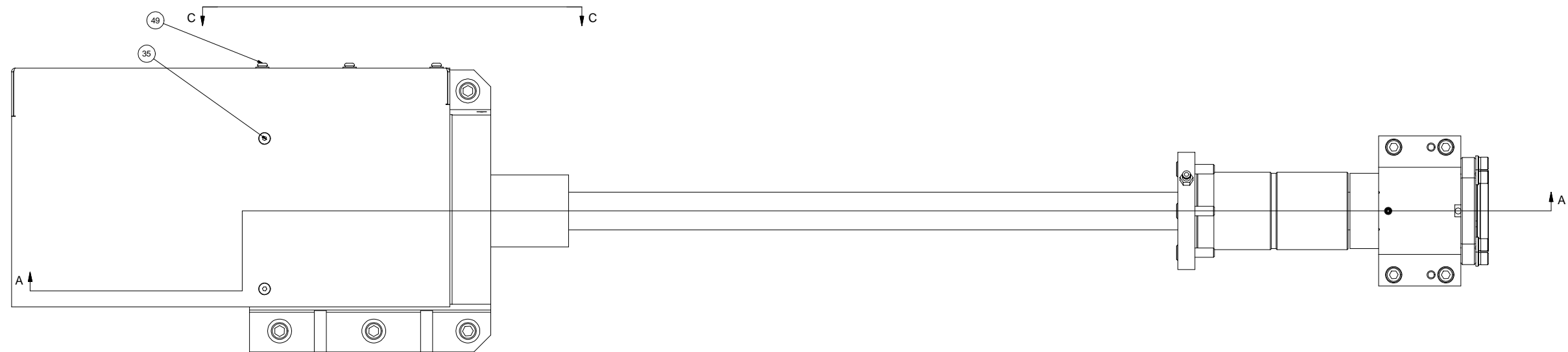
ITEM	PART NUMBER	QTY	DESCRIPTION
1	QCB0011847 Z	1	LINEAR ENCODER, Z AXIS
2	MS 0103819	2	SCREW, SHC, M8X1.25X25MM
3	MS 0103418	2	SCREW, SHC, M4X0.7X20MM
4	MS 0103619	2	SCREW, SHC, M6X1X25MM
18	CQ 0011555FCE	1	CHILLER, COOLANT
20	CS 000838402	4	CONNECTOR, 3/4 NPT X 3/4 BARB
21	LC 000700702	312"	TUBING, 3/4" ID
22	CC 0006966	4	CLAMP, HOSE
23	SG 000350401	1	NIPPLE, 1" NPT X 2" LONG
24	CQ 000770239	2	CONN, STRAIGHT -16 JIC FEMALE X 1" NPT
25	CQ 000770240	2	CONN, STRAIGHT -16 JIC MALE X 1" NPT
26	CL 000770301G	2	ELBOW, 1" NPT STREET
27	SB 0010884 S	0.20	SEALANT, HYDRAULIC
28	AH 0010110	2	ELBOW, 3/4" 90 DEGREE STREET
29	GT 0009424	2	BUSHING, 1" NPTM TO 3/4 NPTF
30	QCA00030114919	1	CABLE, HEIDENHAIN
32	MS 0303516SA	4	SCREW ASSEMBLY, BH M5X.8X12
37	LM 0008104	2	TIE, CABLE
38	QC 0011614 F	2	FILTER, 150 MICRON
39	CQB0001990ZR	1	BRACKET, Z-AXIS READER
40	TT 0007007	3.5"	TUBING, PLASTIC
41	DVB0009623	1	CABLE CLAMP, 7/16
42	MW 0193610	2	WASHER, LOCK, M6
49	CH 000962301	4	CLAMP, PLASTIC
50	HS 001125915	4	VALVE, BALL 1" NPT

ITEM	PART NUMBER	QTY	DESCRIPTION
1	CQA0011847 Y	1	LINEAR SCALE, Y-AXIS
2	DQ 0001990YR	1	BRACKET, Y-AXIS READER
3	MS 0103619	2	SCREW, SHC, M6X1X25MM
4	MW 0193610	2	WASHER, LOCK, M6
5	MS 0103418	2	SCREW, SHC, M4X0.7X20MM
6	MS 0103819	2	SCREW, SHC, M8X1.25X25MM

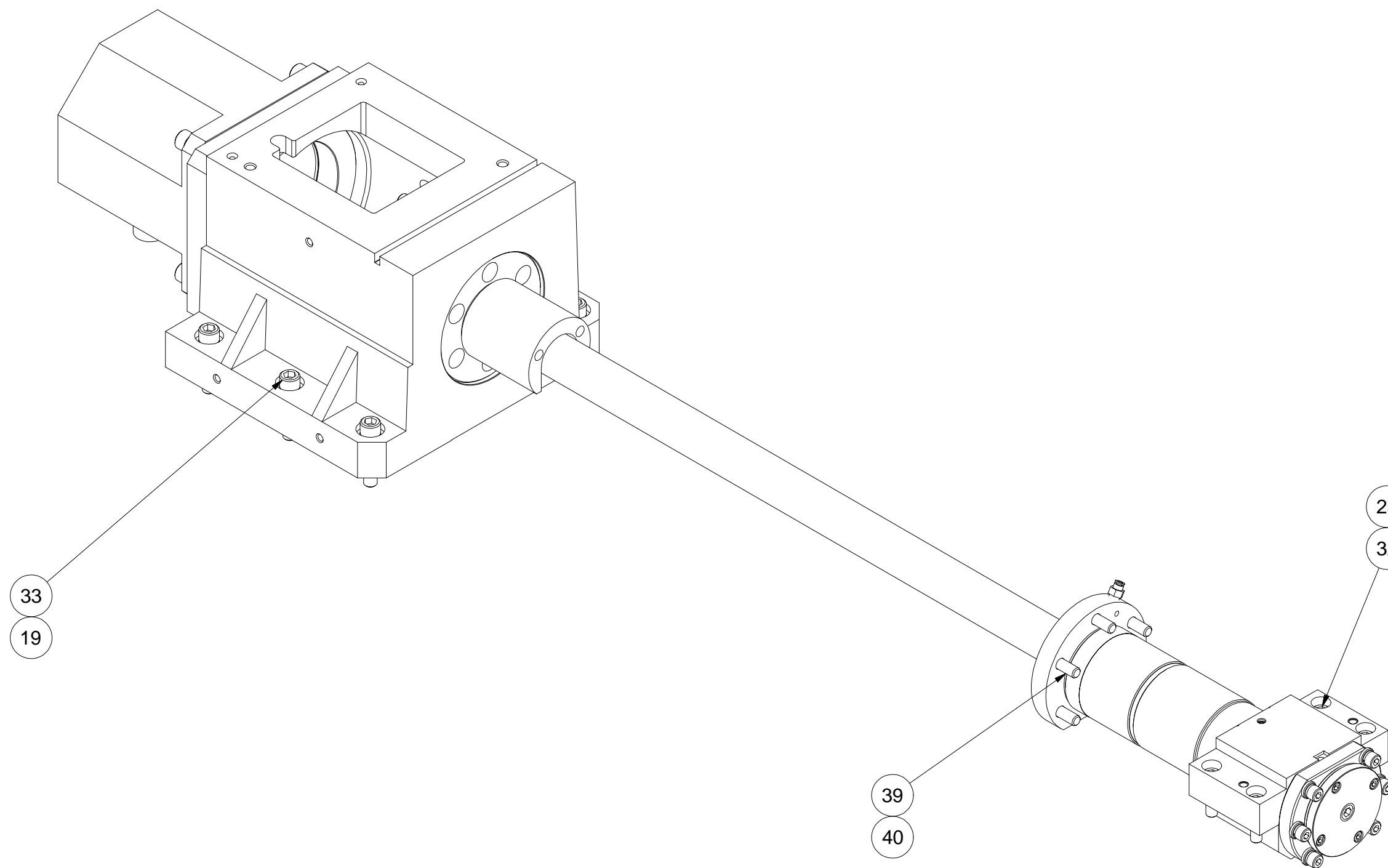
ITEM	PART NUMBER	QTY	DESCRIPTION
7	CQ 00046290616	2	PIN, DOWEL M6x16
8	QCA00030114919	1	CABLE, HEIDENHAIN



UNIQUE PARTS, SUPER-PRECISION MACHINE WITH Y AXIS  
DQ 0000400SPY



Z-AXIS SUB-ASSEMBLY  
DQA0007500 Z



Z-AXIS SUB-ASSEMBLY  
DQA0007500 Z



ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
1	DQ 0001902 Z	1	BALL SCREW, Z AXIS	43	HG 0010440	0.01	GREASE, ANTI-SIEZE
2	DQ 0011932ZH	1	HOUSING, BEARING Z-AXIS	45	MS 0104223	4	SCREW, SHC, M12X1.75X45MM
3	DQA0001991	1	PLATE, MOTOR MOUNTING	46	SG 0007702 A10	1	CONNECTOR, MALE 4MMOD X1/8 BSP
4	CSA0000492	1	NUT, ADJUSTABLE SPIETH	47	CN 0001467	1	PLUG, 3/8" NPTF PIPE FLUSH
5	DQ 0011176 X	1	HOUSING, BEARING	48	LT 0010884 S	0.10	SEALANT, PIPE
6	CSA0004140	6	BEARING, BALL	49	MS 0303616SA	3	SCREW ASSEMBLY, 6MX1X12MM
7	QCA0011932ZH	1	BALLSCREW SUPPORT	50	DQ 0001799	2	NUT, BEARING
8	CS 000943101	2	O-RING	51	MC 0011198	2	SEAL, LIP
9	QC 0011176 Z	1	HOUSING BEARING	52	5 0001467	1	PLUG, 1/8 NPT
10	DQ 001197603	1	STOP, BALLSCREW				
11	CS 000026005	1	NUT, LOCK				
12	QCB0011137 Z	1	RETAINER RING				
13	CL 001082801	1	SPACER				
14	MS 0103523	2	SCREW, SHC, M5X0.8X45MM				
15	DQ 0010115ZCC	1	COVER, Z-AXIS COUPLING				
16	MS 0303517	2	SCREW, BTHD M5X0.8X16MM				
17	NC 001088402	0.10	THREADLOCKER, LOCTITE 222				
19	MW 0194210	10	WASHER, LOCK, M12				
20	MW 0104210	4	WASHER, FLAT, M12				
22	CS 001119814	1	SEAL, LABYRINTH				
23	MS 0103618	4	SCREW, SHC, M6X1X20MM				
24	ML 0010994BS	0.02	GREASE, BALLSCREW SEAL				
25	NC 0010884	0.04	THREADLOCKER, 242				
26	MS 0553513	3	SCREW, SET, CUP, M5X.8X6				
27	CH 0004732	3	PLUG, BRASS				
28	MS 0103823	8	SCREW, SHC, M8X1.25X45MM				
29	CQ 001197601	1	BUMPER				
30	MS 0103821	6	SCREW, SHC, M8X1.25X35MM				
31	MW 0193810	14	WASHER, LOCK, M8				
32	MS 0104021	8	SCREW, SHC, M10X1.5X35MM				
33	MS 0104225	6	SCREW, SHC, M12X1.75X55MM				
35	MS 0313616	2	SCREW, FHD SOC, M6 X 1.0 X 12				
37	MS 0303516	1	SCREW, BTHD M5X0.8X12MM				
38	GK 0006966	1	CLAMP, HOSE 4 MM SINGLE				
39	MS 0104020	5	SCREW, SHC, M10X1.5X30MM				
40	MW 0194010	5	WASHER, LOCK, M10				
42	5 0001895	6	WASHER				

PART NUMBER	DESCRIPTION	VENDOR SPECIFICATION	Qty.
LP 0009610	FUSE, 6A CLASS CC	GOULD #ATDR6	3
SG 000961011	FUSE, 10A, CLASS CC	GOULD #ATDR10	3
SG 000961020	FUSE, CLASS CC - 30A	GOULD #ATDR30	3
SG 000961004	FUSE 2-1/2A CLASS CC	SHAWMUT #ATDR2-1/2	3
SG 000961001	FUSE, 5A CLASS CC	GOULD #ATDR5	3
SG 000961006	FUSE, 2A CLASS CC	GOULD #ATDR2	3
SG 000961019	FUSE, 7A CLASS CC	GOULD ATDR7	3
SG 000961007	FUSE, 3A CLASS CC	GOULD #ATDR3	3
SG 000961005	FUSE, 1A CLASS CC	GOULD ATDR1	3
SG 0009610	FUSE, 1-6/10A CLASS CC	GOULD #ATDR1-6/10	3
VL 0009610CC04	FUSE, 4A CLASS CC	GOULD ATDR4	3
LC 000812203	RELAY, MINI 24VDC	IDEC #RH1B-U—DC24V	2
CQ 000812204	RELAY, FG SAFETY, 2NO/2NC	OMRON #G7SA-2A2B	2
TT 001022403	SWITCH, PROX, 8MM W/ CON 0.6M	#BI 1-GS880-AP6X-0.6M-RS4T	1
TT 001022401	SWITCH, PROX W/ CONN	Turk #BI1.5-EG08K-AP6X-V1131	1
SR 0011614100M	FILTER ELEMENT, 100 M CLEANABLE	TC20-100-P-B-DOE-597	1
NV 00028340201	PART CATCHER CYLINDER SWITCH	LY-D73L (REED SWITCH)	1
QC 0011736	COLLET OPEN / COLLET CLOSE PRESSURE SWITCH	EARL UE10F12M201400R	1
CQA0003048SV1	AIR VALVE SV2A00	SMC SV2A00-5FU	1
CQA0003048SV2	AIR VALVE SV2200	SMC SV2200-5FU	1
CQ 0003048SV3	AIR VALVE SV2300	SMC SV2300-5FU	1
DQ 0003346 Y	BELT, Y-AXIS DRIVE	8MGT-1120-21 / #9274-1140	1
QC 001022401	SWITCH, PROX 8MM X 50MM	TURCK BI1.5EG08AP6X-V11	1
QC 001022403	SWITCH PROX 5MM X 42.5MM	TURCK BI1EG05AP6X-V1331	1
DQ 0003346LTY	BELT, LIVE TOOLING	#20G-C3-8PC-1200-25	1
TT 0003048SOL	SPINDLE BRAKE VALVE	DG4V3S2AMUH560 SOL VALVE	1
VL 0003048CCDV	VALVE WITH SOLENOID	DG4V3S-2N-MUH5-60	1
CQA0011736DCS	PRESSURE SWITCH DUAL CHECK SAFETY	SMC ISE40A-N01-Y-X531	1
SB 0011614 F	HYDRAULIC FILTER	PALL HC9020FKN4H/Q=37720	1
TT 0010994NCA	GREASE, KLUBER	KLUBER ISOFLEX NCA	1
TT 001099401	GREASE GUN	LINCOLN #1147	1
DQ 0002916FPAD	FINGER PAD	HARDINGE	4
CQ 0011736	SWITCH, HYDRAULIC PRESSURE	GEMS PS 75 - 60 PSI RISE	1

CABLE NUMBER	PART NUMBER	NOTES
1003FCBL	DQ 00030101610K	
1004ACBL	LP 0003010K801	
1004BCBL	LP 0003010K801	
1004CCBL	CQ 000301004	
1004DCBL	LP 0003010K801	
1004ECBL	LP 0003010K801	
1004FCBL	LP 0003010K801	
1006ACBL	DQ 00030100010	
1006BCBL	HE 4001178	
1006CCBL	HE 4001178	
1101CBL	DQ 00030100020K	
1104CBL	DQ 00030100030K	
1107CBL	DQ 00030100040K	
1114CBL	DQ 00030100050K	
1120CBL	DQ 00030100060K	
2001CBL	HE 4001160	
2005CBL	DQ 00030100070K	
2007CBL	DQ 00030100080	
2008CBL	DQ 00030100090	
2009CBL	DQ 00030100100	
2012CBL	DQ 00030100110K	
2014CBL	DQ 00030100120K	
2018CBL	DQ 00030100130	
2019CBL	DQ 00030101630	
2102CBL	DQ 00030100140K	
2103CBL	DQ 00030100150K	
2104CBL	DQ 00030100160K	
2108ACBL	ML 0003010K100	
2108BCBL	ML 0003010K100	
2108CCBL	ML 0003010K100	
2109CBL	DQ 00030100170K	
2113CBL	DQ 00030100180K	
308CBL	DQ 00030100190	

CABLE NUMBER	PART NUMBER	NOTES
3006CBL	DQ 00030101350	
3009CBL	DQA00030101360	
3110CBL	DQ 00030100200	
4000CBL	DQ 00030100210	
4102CBL	DQ 00030101690	
4112CBL	DQ 00030100250	
4118CBL	DQ 00030100260	
412CBL	DQ 00030100270	
416CBL	DQ 00030100280	
4201CBL	DQ 00030100290	
420CBL	DQ 00030100300	
4313CBL	DQA00030101620	
4319CBL	DQ 00030101550	
4628CBL	DQ 00030100310	
4712ACBL	DQ 00030101740	
4732CBL	DQ 00030100330	
4828CBL	DQ 00030100340	
4836CBL	DQ 00030100350	
4837CBL	DQ 00030100360K	
4932CBL	DQ 00030100370	
500CBL	DQ 00030101500	
506CBL	DQ 00030101510	
5020CBL	DQ 00030100380	
5320CBL	DQ 00030100410	
5417CBL	DQ 00030100420	
5419CBL	DQ 00030100430	
5421CBL	DQ 00030100440	
5422CBL	DQ 00030100450	
5423CBL	DQ 00030100460	HYDRAULIC COLLET CLOSER ONLY
5424CBL	DQ 00030100470	
5425CBL	DQ 00030100480	HYDRAULIC COLLET CLOSER ONLY
5426CBL	DQ 00030100490	
5428CBL	DQ 00030100500	

CABLE NUMBER	PART NUMBER	NOTES	CABLE NUMBER	PART NUMBER	NOTES
5431CBL	DQ 00030100510	HYDRAULIC COLLET CLOSER ONLY	5705CBL	DQ 00030100770	SUB-SPINDLE FOOT SWITCH
5432CBL	DQ 00030100520		5705CBL	DQ 00030100780	TAILSTOCK FOOT SWITCH
5433CBL	DQ 00030100530	HYDRAULIC COLLET CLOSER ONLY	5713CBL	DQ 00030100800	
5434CBL	DQ 00030100540		5724CBL	DQ 00030100810	
5436CBL	DQA00030100550	SUB-SPINDLE BRAKE	5740CBL	DQA00030101580	
5436CBL	DQ 00030101400	TAILSTOCK BRAKE	5821CBL	DQ 00030101670	
5440CBL	DQ 00030100560		5920CBL	DQ 00030100830	
5444CBL	DQ 00030101600		6027CBL	DQ 00030101340	
5445CBL	DQ 00030100570		6028CBL	DQ 00030100840	
5500CBL	DQ 00030100580	NON READY 2 CUT	6030CBL	DQ 00030100850	
5500CBL	DQ 00030101680	READY 2 CUT	6038CBL	DQ 00030100910	
5509CBL	DQ 00030101650		6040CBL	DQ 00030100920	
5512CBL	DQ 00030101660		6042CBL	DQ 00030100930	
5523CBL	DQ 00030100590		6220CBL	DQ 00030100950	
5524CBL	DQ 00030100600	HYDRAULIC COLLET CLOSER ONLY	6400CBL	DQ 00030100960	
5524CBL	DQ 00030100610	AIR COLLET CLOSER ONLY (SMC)	704CBL	DQ 00030100980	
5526CBL	DQ 00030100620		709CBL	DQ 00030101380	
5527CBL	DQ 00030100630	HYDRAULIC COLLET CLOSER ONLY	712CBL	DQA00030101390	
5527CBL	DQ 00030100640	AIR COLLET CLOSER ONLY (SMC)	7102CBL	DQ 00030101590	MARPOSS REMOVABLE ARM
5529CBL	DQ 00030100650		7102CBL	DQ 00030101640	RENISHAW REMOVABLE ARM
5530CBL	DQ 00030100660	HYDRAULIC COLLET CLOSER ONLY	715CBL	DQ 00030101710	
5530CBL	DQ 00030100670	AIR COLLET CLOSER ONLY (SMC)	719CBL	DQ 00030101010	
5532CBL	DQ 00030100680		730CBL	DQ 00030101040	
5533CBL	DQ 00030100690	HYDRAULIC COLLET CLOSER ONLY	7403CBL	DQ 00030101720K	7403CBL & 7404CBL IS A SINGLE "Y" CABLE
5533CBL	DQ 00030100700	AIR COLLET CLOSER ONLY (SMC)	7404CBL	DQ 00030101720K	7403CBL & 7404CBL IS A SINGLE "Y" CABLE
5535CBL	DQ 00030100710		7406CBL	DQ 00030101730K	
5538CBL	DQ 00030100720		809CBL	DQ 00030101050	
5541CBL	DQ 00030100730		EADC	DQ 00030101560	
5544CBL	DQ 00030100740		EECBL	DQA00030101060K	
5620CBL	DQ 00030100750		EPCBL	DQ 00030101070K	
5701CBL	DQ 00030100760		K90	DQ 00030101080	
			LTECBL	DQ 00030101090	

CABLE NUMBER	PART NUMBER	NOTES
LTOCBL	DQ 00030101100	
LTPCBL	DQ 00030101110	ALPHA 3
LTPCBL	DQ 00030101520	ALPHA 6
MSECBL	DQ 00030101570K	ICZ SENSOR
MSPGCBL	DQ 00030101140	
MSPUCBL	DQA00030101150	
MSPVCBL	DQA00030101160	
MSPWCBL	DQA00030101170	
MSSMCBL	DQ 00030101180	
SSECBL	DQ 00030101190	
SSPGCBL	DQA00030101210	
SSPUCBL	DQA00030101220	
SSPVCBL	DQA00030101230	
SSPWCBL	DQA00030101240	
SSSMCBL	DQ 00030101250	
TECBL	DQ 00030101260K	
TPCBL	DQ 00030101270K	
XECBL	DQ 00030101280K	
XPCBL	DQ 00030101290K	
YECBL	DQ 00030101300K	
YPCBL	DQ 00030101310K	
ZECBL	DQ 00030101320K	
ZPCBL	DQ 00030101330K	

- NOTES -

## DOCUMENT REVISION RECORD

Date	Document Revision Level	Description
May 22, 2012	-	Initial release.
August 20, 2012	-	Updated guard assembly.
November 1, 2012	A	Document update.
December 7, 2012	A	Added platform mechanical assembly.
March 27, 2013	A	Updated button-up assembly. Updated unique parts.
May 14, 2013	A	Added replacement cables.
May 29, 2013	A	Updated headstock assembly, main spindle, T-65 Lathe.
July 15, 2013	A	Updated headstock assembly, sub-spindle.
November 25, 2013	A	Updated power case enclosure assembly.
January 30, 2014	A	Added tailstock brake switch.
February 19, 2014	A	Updated air panel for sub-spindle. Updated sub-spindle/tailstock brake hydraulic control.
June 30, 2014	A	Updated sub-spindle assembly. Updated tailstock assembly.
March 16, 2015	A	Updated power case component assembly.
December 1, 2015	A	Updated power case component assembly.
January 4, 2016	A	Updated standard main headstock assemblies. Updated standard hydraulic collet closer assemblies. Added CFS main headstock assemblies. Added CFS hydraulic collet closer assemblies.
March 14, 2016	A	Updated standard 51mm main headstock assembly. Updated CFS 51mm main headstock assembly.
April 21, 2016	A	Updated coolant pump on platform assembly.
June 16, 2016	A	Updated Button-Up.
July 27, 2016	A	Updated turret assembly, Y axis with live tooling. Added turret assembly, Y axis without live tooling.
October 10, 2016	A	Updated headstock assemblies.
January 16, 2017	A	Updated platform assembly.
April 19, 2017	A	Updated collet closer assembly, main spindle, 51mm. Updated collet closer assembly, main spindle, 51mm CFS. Updated collet closer assembly, main spindle, 65mm. Updated collet closer assembly, main spindle, 65mm CFS.

Date	Document Revision Level	Description
June 19, 2017	B	Document update.
August 24, 2017	B	Updated base assembly, machine with tailstock or sub-spindle. Updated base assembly, machine without tailstock or sub-spindle.
August 27, 2018	B	Updated base assemblies (added INA linear guides). Added sub-base assemblies. Updated carriage and cross slide (added INA linear guides). Updated pedestal assembly, group 1.
July 18, 2019	B	Added Siemens automatic guard door.
August 1, 2019	B	Added air filter/regulator assembly. Updated platform assembly.
August 28, 2019	B	Updated pedestal assembly, group 2. Updated platform assembly.
September 25, 2019	B	Updated High Performance lathe unique components. Updated sub-spindle assembly.
March 25, 2020	B	Updated Pedestal Assembly, Group 1, items 1014 and 1060.
March 27, 2020	B	Added Marposs part probe.
May 4, 2020	B	Updated headstock assemblies. Updated sub-spindle assembly.
January 14, 2021	B	Updated Cone Assembly. Updated Operator Control Panel 1. Updated Operator Control Panel 2.
January 19, 2021	B	Updated Pedestal Assembly, Group 1
Februray 1, 2021	B	Added Cover Assembly, Machine without Parts Catcher



- NOTES -



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