Frick®
BY JOHNSON CONTROLS

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SERVICE PARTS LIST

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Service Parts List

TDSB
ROTARY SCREW COMPRESSOR

MODEL: 355U

HOW TO USE SERVICE PARTS LIST

This Service Parts List is for standard Frick TDSB 355U, Rotary Screw Compressor Units. Units built with special options, modifications, or conversions are not taken into consideration.

This Service Parts List provides identification for detail parts by Figure and Index Number, Item Number and Description. To determine correct replacement item, locate item on Figure 1, 2, etc., note index number, refer to corresponding index number in parts list for item number and description. Quantity per assembly is located in QTY. column. Unit of measure is always "each" unless specified otherwise in Quantity column. When Ref. is in QTY. column, this means that the Item Number is for information only and is not necessarily a service replacement part. Contact Frick Parts Department for more information. REV. (Revision) column tells the level of the engineering drawing used here.

The Numerical Parts List can be used to locate a specific item in the Service Parts List. Look for the part by Frick Item Number and it will refer you to the Figure and Index Number where it is located.

Abbreviations found in this manual include:
A/R ..... As Required
Ref..... Reference

The **Model/Serial Number Plate**, is located on the rotor casing assembly.

NOTE: PLEASE PROVIDE FRICK ORDER NUMBER, UNIT MODEL NUMBER, AND UNIT SERIAL NUMBER WHEN REQUESTING A QUOTATION OR PLACING AN ORDER. FAILURE TO INCLUDE THIS INFORMATION MAY DELAY PROCESSING OF YOUR REQUEST.

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RECOMMENDED SPARE PARTS KITS

DESCRIPTION	KIT	SYMBOL
Shaft Seal Kit	534M0163G05	●
O-ring & Gasket Kit	534M0027G03	■
Slide Stop Pot. Kit	111Q0041148	✤
Slide Valve Pot. Kit	534D0523G02	✱
Balance Piston Kit	534M0557G05	★
Bearing Kit *	534A0921G01	▲
Compressor Tool Kit	534A0213G01	

Note: When stocking the above, adjust quantity to meet your individual requirements. Items in the following parts lists with matching symbols are included in above kits.

* Contains shims needed to set end play and clearance.

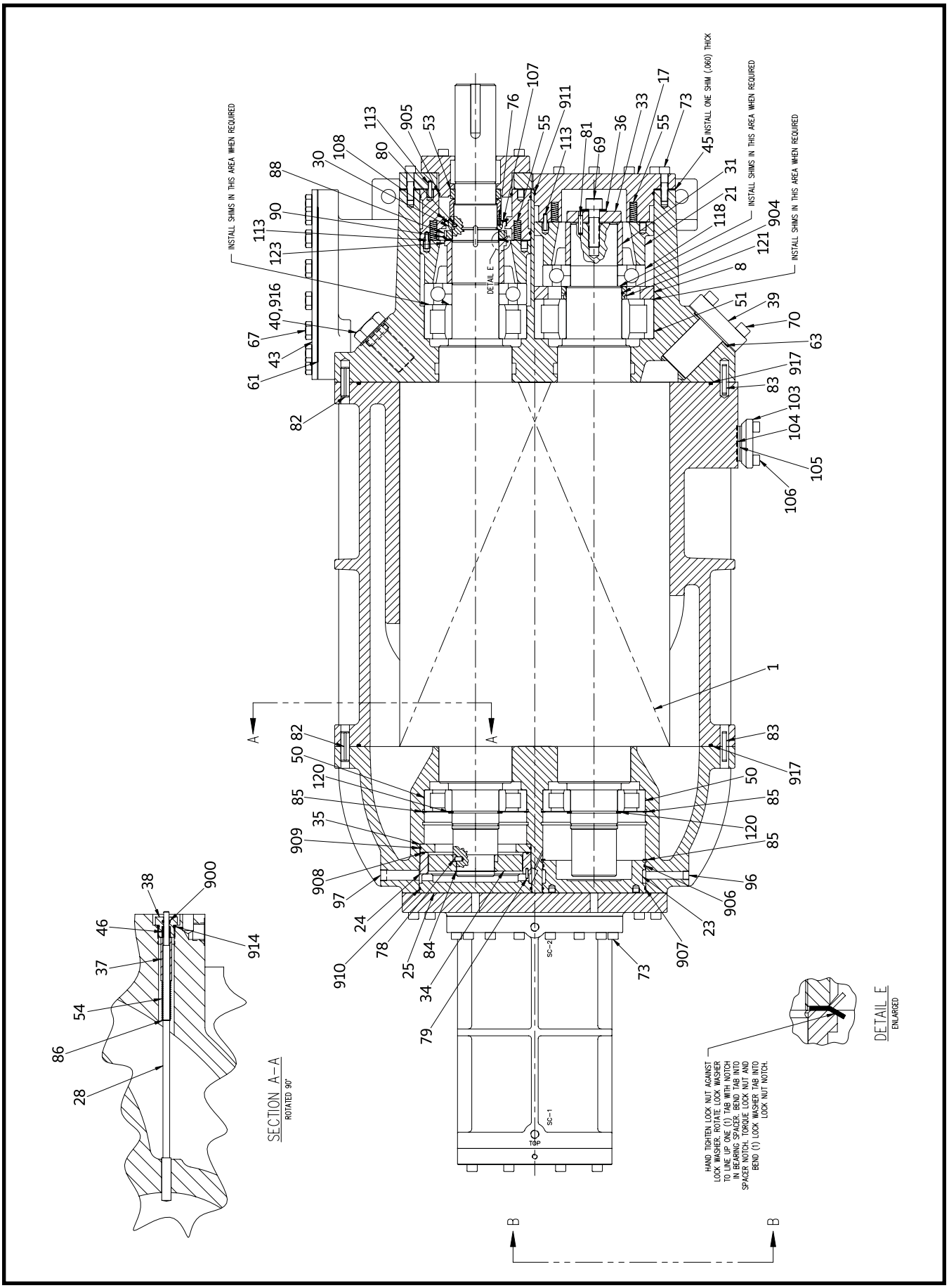


Figure 1a. TDSB 355U Screw Compressor Cross Section, Top.

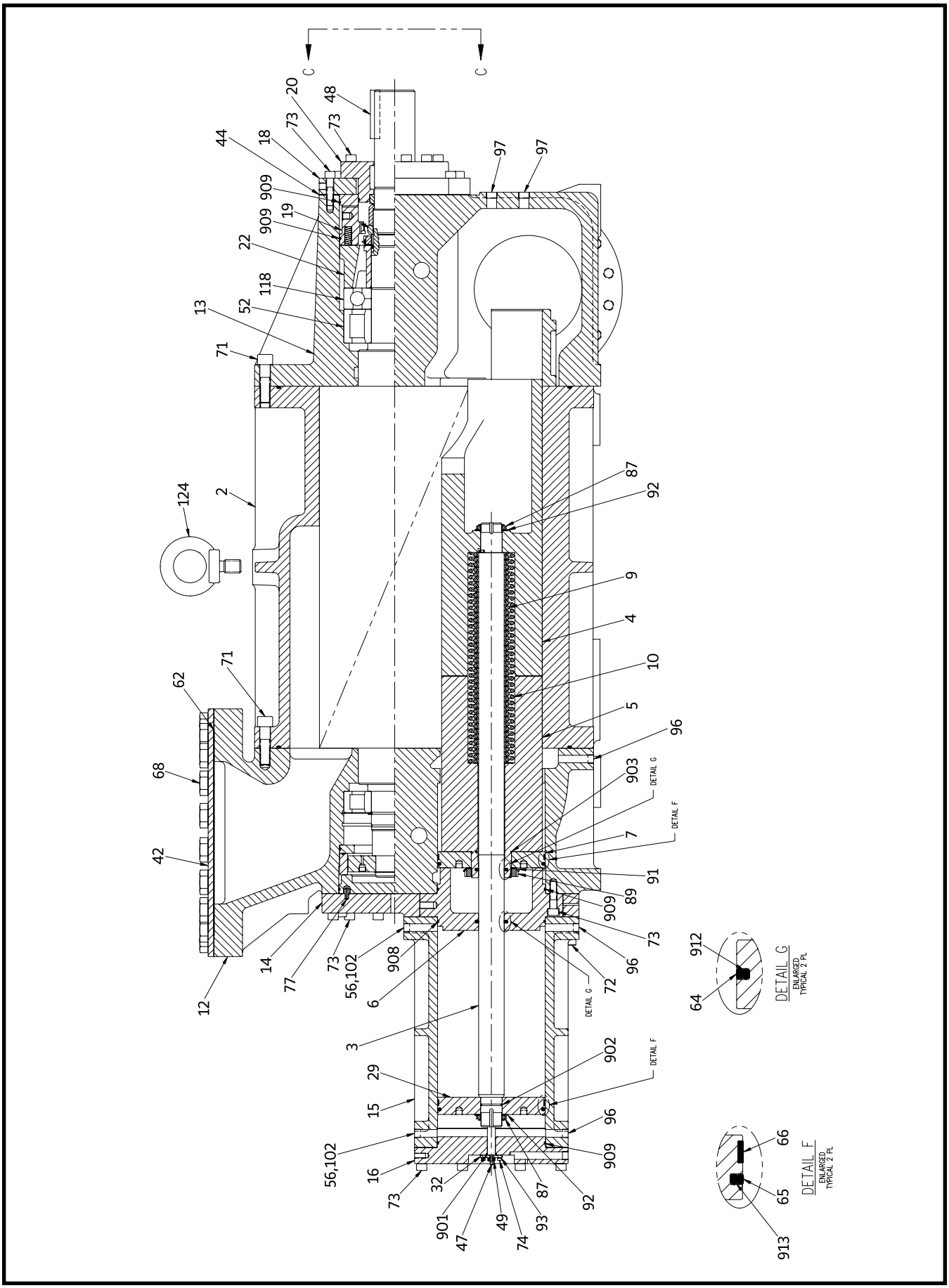
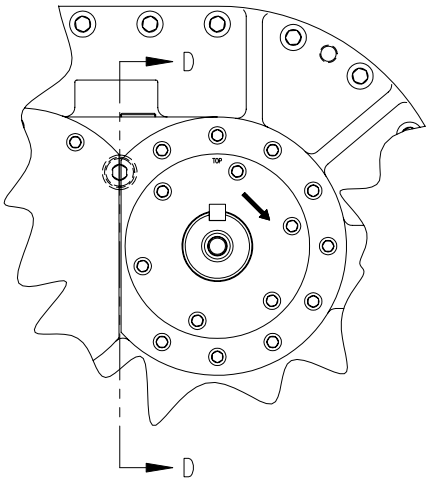
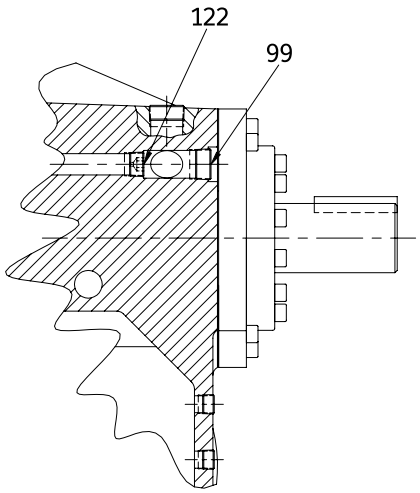


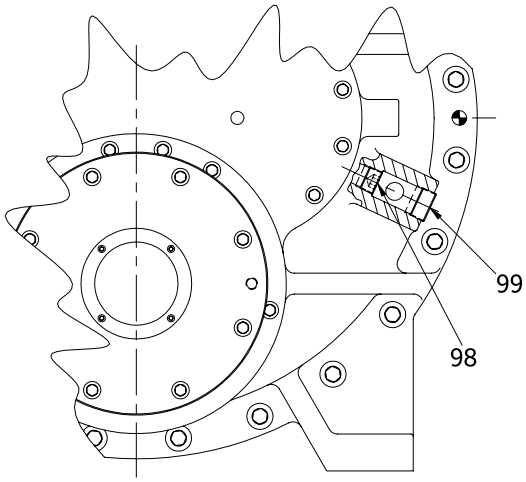
Figure 1b. TDSB 355U Screw Compressor Cross Section, Side.



VIEW C–C



SECTION D–D



VIEW B–B
ROTATED 90°

Figure 1c. TDSB 355U Screw Compressor Cross Section, Details.

FIG. & INDEX	ITEM NUMBER	DESCRIPTION	QTY.	REV.
1–	534D1170G01	Assembly, Compressor, TDSB 355U	Ref.	U
–1	534A0839G02	Rotor Pair	1	
–2	534D0407G05	Assembly, Rotor Housing	1	
	534D1041C01	Guide, Slide Valve	1	
	111Q0740741	Capscrew, Socket Head	4	
	534A0634H02	Pin, Dowel, Vented	2	
	534C0194H51	Plug, w/.709" Orifice	1	SM-1
–3	534D0464G12	Assembly, Spindle	1	
	534D0390H03	Spindle	1	
	534A0191H02	Bushing	1	
	534A0193H02	Pin, Crowned	1	
	534A0037H02	Pin, Dowel	1	
–4	534D1166C01	Valve, Slide	1	
–5	534D1168C01	Stop, Slide	1	
–6	534D0862C01	Cover, Slide Stop	1	
–7	534D0367C01	Piston, Slide Stop	1	
–8	534D0412C01	Spacer, Bearing	1	
–9	534B0240H01	Spring, Unloader	1	
–10	534B0242H01	Spring, Unloader	1	
–12	534D1606C01	Casing, Inlet	1	
–13	534E1077C01	Casing, Discharge	1	
–14	534D0370C01	Cover, Inlet	1	
–15	534E0683C01	Cylinder	1	
–16	534D0369C01	Cover, Cylinder	1	
–17	534D1402C01	Cover, Outlet	1	
–18	534D1400C01	Cover, Seal Housing	1	
–19	534D1401C01	Spacer, Seal Housing	1	
–20	534D0766C01	Cover, Housing	1	
–21	534D1135C02	Spacer, Bearing Preload (Female)	1	
–22	534D1135C01	Spacer, Bearing Preload (Male)	1	
–23	534D0375C01	Cover, Female Inlet Bore	1	
–24	534D0391C01	Sleeve, Male Balance Piston ★	1	
–25	534D0374C01	Cover, Male Inlet Bore	1	
–26	534D0523G01	Mechanism, Slide Valve Indication	1	
–27	534D0363G01	Mechanism, Slide Stop Indication	1	
–28	534B0055G05	Assembly, Indicator Rod	1	
–29	534D0368C01	Piston, Spindle	1	
–30	534C0487H01	Ring, Seal Distance	1	
–31	534B0651H01	Spacer, Bearing	2	
–32	534B0112H01	Plate, Backing	1	
–33	534C0492H01	Plate, Bearing	1	
–34	534D0639H01	Piston, Male Balance ★	1	
–35	534D0392H01	Ring, Male ★	1	
–36	534B0239H01	Washer ▲	1	
–37	534A0031H01	Spacer	1	
–38	534A0034H01	Plug, Seal	1	
–39	534C0493C01	Plug, Vapor Injection	1	SV-1
–40	534C0569H01	Plug, Liquid Injection	1	SL-2
–41	534C0570H01	Plug, Liquid Injection	1	SL-1
–44	534D0408G01	Shim Pack (Female)	3	
–45	534C2157H01	Shim (Female)	1	
–46	534A0033H01	Bearing	1	
–47	534C1356H03	Shaft, Potentiometer	1	
–48	534A0662H04	Key, Square	1	
–49	534B0182H01	Collar, Clamp	1	
–50	534B0004H34	Bearing, Cylindrical Roller ▲	2	
–51	534B0004H25	Bearing, Cylindrical Roller ▲	1	

● ■ ★ ▲ See page 3 for kit part numbers.

TDSB ROTARY SCREW COMPRESSOR
SERVICE PARTS LIST

FIG. & INDEX	ITEM NUMBER	DESCRIPTION	QTY.	REV.
−52	534B0004H26	Bearing, Cylindrical Roller ▲	1	
−53	534C0701H06	Assembly, Shaft Seal ●	1	
−54	534A0032H02	Spring	1	
−55	534A0251H01	Spring	12	
−61	959A0054H34	Sealing Disk	1	
−62	959A0054H36	Sealing Disk	1	
−63	959A0057H18	Gasket, Flange ■	1	
−64	534B0006H07	Seal, Rod	2	
−65	534C0187H11	Ring, Glyd ■	2	
−66	534C0510H01	Ring, Slyd ■	2	
−67	901A0207H03	Capscrew, Hex Head, (M24 x 3.0) x 50mm	16	
−68	901A0231H01	Capscrew, Hex Head, (M30 x 3.5) x 50mm	20	
−69	534A0076H04	Capscrew, Socket Head, 1-8UNC x 3-1/2" ▲	1	
−70	901A0222H09	Capscrew, Socket Head, (M20 x 2.5) x 75mm	4	
−71	901A0232H12	Capscrew, Socket Head, (M24 x 3.0) x 90mm	46	
−72	901A0223H16	Capscrew, Socket Head, (M16 x 2.0) x 120mm	10	
−73	901A0223H09	Capscrew, Socket Head, (M16 x 2.0 x 65mm	65	
−74	901A0225H05	Capscrew, Socket Head, (M5 x 0.8) x 16mm	4	
−75	111Q0740872	Capscrew, Socket Head, (M24 x 3.0) x 100mm	2	
−76	534A0038H08	Pin, Spring, .250 x .625" ●	1	
−77	534A0038H10	Pin, Spring, .312 x 1.00" ● ★	2	
−78	534A0037H19	Pin, Dowel, Ø10h8 x 20mm ★	1	
−79	534A0037H10	Pin, Dowel, Ø5m6 x 24mm ★	1	
−80	534A0037H12	Pin, Dowel, Ø5h8 x 10mm ●	1	
−81	534A0037H15	Pin, Dowel, Ø10h8 x 45mm	1	
−82	534B0149H01	Pin, Dowel, 20mm x 70mm	1	
−83	534B0151H01	Pin, Dowel, 20mm x 70mm, Special	2	
−84	534B0244H01	Ring, Retaining ★	1	
−85	534B0174H09	Ring, Retaining	3	
−86	534B0015H06	Ring, Retaining ■	1	
−87	534B0910H04	Locknut ■	2	
−88	534A0035H13	Locknut ▲	1	
−89	534A0035H09	Locknut	1	
−90	534B0125H13	Lockwasher ▲	1	
−91	534B0125H09	Lockwasher ■	1	
−92	534B0125H14	Lockwasher ■	2	
−93	905A0021H08	Lockwasher	4	
−101	944A0010H09	Bushing	1	
−102	944A0010H05	Bushing	2	
−103	944A0358H03	Flange, Square	1	
−104	959A0057H07	Gasket, Flange ■	1	
−105	531A0117H12	Sealing Disk	1	
−106	901A0223H08	Capscrew, Socket Head, (M16 x 2.0) x 60mm	4	
−107	534B0426H01	Seal, Lip ●	1	
−108	333Q0000376	Ring, Retaining ●	1	
−112	944A0228H08	Plug, Straight Thread O-ring, 1 1/16-12UN-2A	1	
−113	534A0037H21	Pin, Dowel, 8m6 x 40	3	
−118	534B0101H28	Bearing, Four-Point Contact Ball ▲	2	
−119	534C0194H51	Plug, Orifice, 1 1/4-11 1/2 NPTF w/.709 Orifice	1	
−120	534B0014H22	Ring, Retaining	2	
−121	534C1587H01	Spacer, Bearing	1	
−122	534C0194H42	Plug, Orifice, 1-11 1/2 NPTF w/.210 Orifice	1	
−123	534C1568H01	Spacer, Bearing	1	
−124	901A0196H12	Ring, Lifting	2	
−900	980A0012A11	O-ring ■	1	
−901	980A0012A67	O-ring ■	1	
−902	980A0012A79	O-ring ■	1	
−903	980A0012B04	O-ring ■	1	

● ■ ★ ▲ See page 3 for kit part numbers.

FIG. & INDEX	ITEM NUMBER	DESCRIPTION	QTY.	REV.
−904	980A0012B81	O-ring ■	1	
−905	980A0012B90	O-ring ■ ●	1	
−906	980A0012H01	O-ring ■	1	
−907	980A0012H02	O-ring ■	1	
−908	980A0012H03	O-ring ■ ★	2	
−909	980A0012H04	O-ring ■ ● ★	4	
−910	980A0012H05	O-ring ■ ★	1	
−911	980A0012H06	O-ring ■	1	
−912	980A0012H41	O-ring ■	2	
−913	980A0012H81	O-ring ■	1	
−914	980A0012K62	O-ring ■	1	
−915	980A0012K66	O-ring ■	1	
−916	980A0012K74	O-ring ■	2	
−917	980A0012K75	O-ring ■	2	

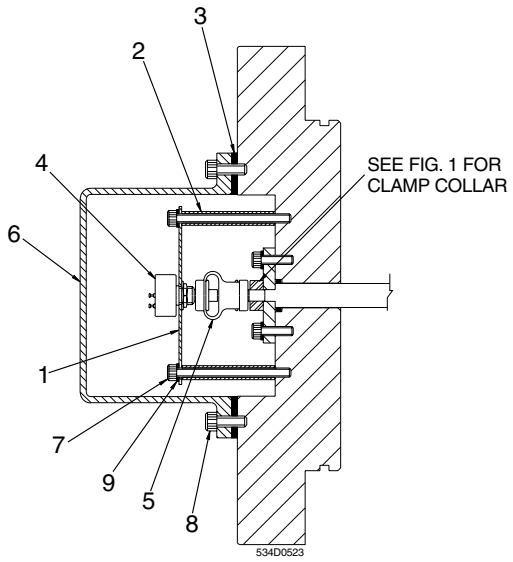


Figure 2. Slide Valve Indication Mechanism.

FIG. & INDEX	ITEM NUMBER	DESCRIPTION	QTY.	REV.
2–	534D0523	Slide Valve Indication Mechanism	Ref.	D
–1	534B0294H01	Plate, Mounting ✱	1	
–2	534A0263H01	Support, Tubing ✱	4	
–3	534A0046H01	Gasket ✱	1	
–4	534B0501H01	Potentiometer ✱	1	
–5	111Q0451313	Coupling, Flexible ✱	1	
–6	534B0062C01	Box, Cover	1	
–7	111Q0740729	Capscrew, Socket Head (5Mx0.8)x60mm	4	
–8	111Q0740728	Capscrew, Socket Head (6Mx1.0)x16mm	4	
–9	111Q0940141	Lockwasher, 5mm	4	
		✱ 534D0523G02 Kit, Slide Valve Potentiometer Service	1	

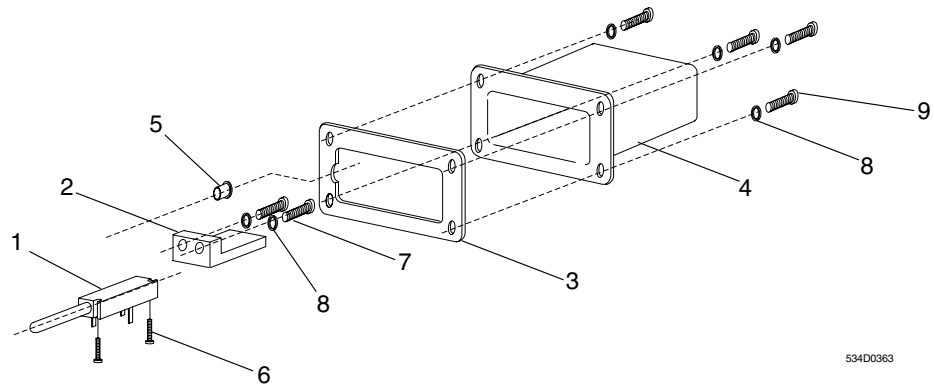


Figure 3. Slide Stop Indication Mechanism.

FIG. & INDEX	ITEM NUMBER	DESCRIPTION	QTY.	REV.
3–	534D0363	Slide Stop Indication Mechanism	Ref.	D
–1	534B0293H01	Potentiometer ✤	1	
–2	534B0283H01	Support, Potentiometer ✤	1	
–3	534B0110H01	Gasket	1	
–4	534C0432C01	Box, Cover	1	
–5	534C0096H13	Bushing	1	
–6	111Q0740784	Screw, Machine, #1-72 UNF x 1/2" ✤	2	
–7	901A0085H19	Capscrew, Socket Head (M8x1.25)x30mm ✤	2	
–8	534C0096H05	Lockwasher, 8mm	6	
–9	901A0085H04	Capscrew, Socket Head (M8x1.25)x20mm	4	
		✤ 111Q0041148 Kit, Slide Stop Potentiometer Service	1	

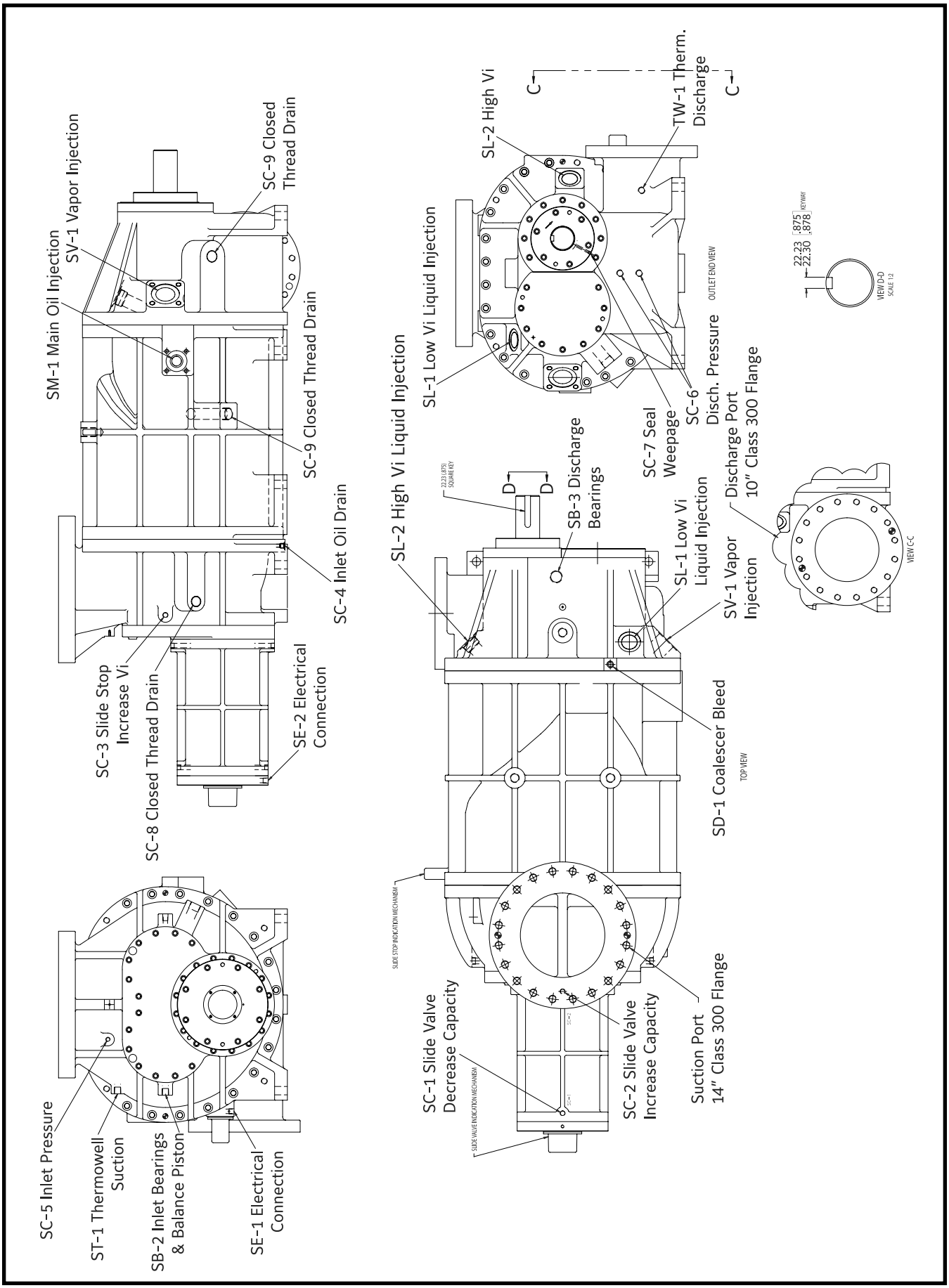


Figure 4. TDSB 355U Screw Compressor Ports Locations.

TDSB Compressor Ports Description		
SYMBOL	SIZE	DESCRIPTION
SB-2	3/4-14 NPTF	Inlet Bearings & Balance Piston
SB-3	1 1/2-11 1/2 NPTF	Discharge Bearings
SC-1	1/2-14 NPTF	Slide Valve Decrease Capacity
SC-2	1/2-14 NPTF	Slide Valve Increase Capacity
SC-3	1/2-14 NPTF	Slide Stop Increase Compressor Vi
SC-4	1/2-14 NPTF	Inlet Oil Drain
SC-5	3/8-18 NPTF	Inlet Pressure
SC-6	3/4-14 NPTF	Discharge Pressure
SC-7	1/8-27 NPTF	Seal Weepage
SC-8	1 1/4-11 1/2 NPTF	Closed Thread Drain
SC-9	1 1/2-11 1/2 NPTF	Closed Thread Drain
SD-1	1 1/16-12UN-2B	Coalescer Bleed (Std. Thd. O-ring Port)
SE-1	1/2-14 NPTF	Electrical Connection
SE-2	1/2-14 NPTF	Electrical Connection
SL-1	2 1/2-12UN-2B	Low Vi Liquid Injection
SL-2	2 1/2-12UN-2B	High Vi Liquid Injection
SM-1	2" Square Flange	Main Oil Injection
ST-1	3/4-14 NPTF	Thermowell Suction
SV-1	3" Square Flange	Vapor Injection
TW-1	3/4-14 NPTF	Thermowell Discharge

FRICK COMPRESSOR OILS				
Number	**1 Gallon**	**5 Gallon**	**55 Gallon**	**330 Gallon**
2A	–	111Q0550019	111Q0550020	333Q0001866
3	333Q0001842	111Q0550001	111Q0550010	333Q0001861
4	–	–	111Q0550005	–
5	–	111Q0550008	111Q0550009	–
6	–	333Q0000940	333Q0000941	–
7	–	111Q0550024	111Q0550025	–
9	–	333Q0000850	333Q0000849	333Q0001862
9ST	–	333Q0001905	333Q0001904	–
10	333Q0000741	333Q0000740	333Q0000739	–
11	–	333Q0000852	333Q0000851	333Q0001863
11ST	–	333Q0001907	333Q0001906	–
12	333Q0001140	333Q0001141	333Q0001142	–
12B	–	333Q0001883	333Q0001884	–
13	333Q0000511	333Q0001253	333Q0001254	–
13B	333Q0001939	333Q0001938	333Q0001937	–
14	333Q0001143	333Q0001144	333Q0001145	–
18	–	–	333Q0001892	–
19	–	333Q0001900	333Q0001899	–
20	–	333Q0001903	333Q0001902	–
NG 1	–	–	333Q0001850	–
NG 2	–	–	333Q0001851	–
NG 3	–	–	333Q0001852	–

Oil Analysis Kit - 333Q0001853
Tube of Motor Grease - 333Q0001860

FRICK BLUE PAINT	
Size Each	**Part Number**
1 PT.	993A0001H01*
1 GAL.	333Q0000404
2 GAL.	333Q0000724**

* Spray Can
** Matte finish epoxy paint. One gallon each of resin and cure that require mixing.

ITEM NUMBER	FIG. & INDEX NO.
111Q0451313	2–5
111Q0740728	2–8
111Q0740729	2–7
111Q0740741	1–2
111Q0740784	3–6
111Q0740872	1–75
111Q0940141	2–9
333Q0000376	1–108
531A0117H12	1–105
534A0031H01	1–37
534A0032H02	1–54
534A0033H01	1–46
534A0034H01	1–38
534A0035H09	1–89
534A0035H13	1–88
534A0037H02	1–3
534A0037H10	1–79
534A0037H12	1–80
534A0037H15	1–81
534A0037H19	1–78
534A0037H21	1–113
534A0038H08	1–76
534A0038H10	1–77
534A0046H01	2–3
534A0076H04	1–69
534A0191H02	1–3
534A0193H02	1–3
534A0251H01	1–55
534A0263H01	2–2
534A0634H02	1–2
534A0662H04	1–48
534A0839G02	1–1
534B0004H25	1–51
534B0004H26	1–52
534B0004H34	1–50
534B0006H07	1–64
534B0014H22	1–120
534B0015H06	1–86
534B0055G05	1–28
534B0062C01	2–6
534B0101H28	1–118
534B0110H01	3–3
534B0112H01	1–32
534B0125H09	1–91
534B0125H13	1–90
534B0125H14	1–92
534B0149H01	1–82
534B0151H01	1–83
534B0174H09	1–85
534B0182H01	1–49
534B0239H01	1–36
534B0240H01	1–9
534B0242H01	1–10
534B0244H01	1–84
534B0283H01	3–2
534B0293H01	3–1
534B0294H01	2–1
534B0426H01	1–107
534B0501H01	2–4
534B0651H01	1–31
534B0910H04	1–87
534C0096H05	3–8
534C0096H13	3–5
534C0187H11	1–65
534C0194H42	1–122
534C0194H51	1–2
534C0194H51	1–119
534C0432C01	3–4
534C0487H01	1–30
534C0492H01	1–33
534C0493C01	1–39
534C0510H01	1–66
534C0569H01	1–40
534C0570H01	1–41
534C0701H06	1–53
534C1356H03	1–47
534C1568H01	1–123
534C1587H01	1–121
534C2157H01	1–45
534D0363G01	1–27
534D0367C01	1–7
534D0368C01	1–29
534D0369C01	1–16
534D0370C01	1–14
534D0374C01	1–25
534D0375C01	1–23
534D0390H03	1–3
534D0391C01	1–24
534D0392H01	1–35
534D0407G05	1–2
534D0408G01	1–44
534D0412C01	1–8
534D0464G12	1–3
534D0523G01	1–26
534D0639H01	1–34
534D0766C01	1–20
534D0862C01	1–6
534D1041C01	1–2
534D1135C01	1–22
534D1135C02	1–21
534D1166C01	1–4
534D1168C01	1–5
534D1400C01	1–18
534D1401C01	1–19
534D1402C01	1–17
534D1606C01	1–12
534E0683C01	1–15
534E1077C01	1–13
901A0085H04	3–9
901A0085H19	3–7
901A0196H12	1–124
901A0207H03	1–67
901A0222H09	1–70
901A0223H08	1–106
901A0223H09	1–73
901A0223H16	1–72
901A0225H05	1–74
901A0231H01	1–68
901A0232H12	1–71
905A0021H08	1–93
944A0010H05	1–102
944A0010H09	1–101
944A0228H08	1–112
944A0358H03	1–103
959A0054H34	1–61
959A0054H36	1–62
959A0057H07	1–104
959A0057H18	1–63
980A0012A11	1–900
980A0012A67	1–901
980A0012A79	1–902
980A0012B04	1–903
980A0012B81	1–904
980A0012B90	1–905
980A0012H01	1–906
980A0012H02	1–907
980A0012H03	1–908
980A0012H04	1–909
980A0012H05	1–910
980A0012H06	1–911
980A0012H41	1–912
980A0012H81	1–913
980A0012K62	1–914
980A0012K66	1–915
980A0012K74	1–916
980A0012K75	1–917

STRAIGHT ADAPTERS / O-RINGS - STRAIGHT THREAD TO NPTF			
Straight Thread Size[1]	NPTF Size [1]	Frick Part Number	O-ring
9/16-18	1/4-18	944A0246H01	980A0012K60
3/4-16	1/4-18	944A0246H02	980A0012K62
3/4-16	3/8-18	944A0246H03	980A0012K62
3/4-16	1/2-14	944A0246H04	980A0012K62
7/8-14	1/4-18	944A0246H05	980A0012K64
7/8-14	3/8-18	944A0246H06	980A0012K64
7/8-14	1/2-14	944A0246H07	980A0012K64
7/8-14	3/4-14	944A0246H08	980A0012K64
1 1/16-12	1/2-14	944A0246H09	980A0012K66
1 1/16-12	3/4-14	944A0246H10	980A0012K66
1 3/16-12	1/2-14	944A0246H11	980A0012K68
1 3/16-12	3/4-14	944A0246H12	980A0012K68
1 5/16-12	1/2-14	944A0246H13	980A0012K69
1 5/16-12	3/4-14	944A0246H14	980A0012K69
1 5/16-12	1-11 1/2	944A0246H15	980A0012K69
1 5/8-12	1-11 1/2	944A0246H16	980A0012K71
1 5/8-12	1 1/4-11 1/2	944A0246H17	980A0012K71
1 7/8-12	1-11 1/2	944A0246H18	980A0012K72
1 7/8-12	1 1/2-11 1/2	944A0246H19	980A0012K72
7/16-20	1/4-18	944A0246H20	980A0012K58

90° ELBOW ADAPTERS / O-RINGS - STRAIGHT THREAD TO TUBE				
NUMBER	TUBE OD[1]	TUBE END UN/UNF-2A[1]	PORT THD UN/UNF-2A[1]	O-RING
944A0288H01	1/2	3/4-16	3/4-16	980A0012K62
944A0288H02	1/2	3/4-16	9/16-18	980A0012K60
944A0288H03	1/2	3/4-16	7/8-14	980A0012K64
944A0288H04	1/2	3/4-16	1 1/16-12	980A0012K66
944A0288H05	5/8	7/8-14	7/8-14	980A0012K64
944A0288H06	5/8	7/8-14	3/4-16	980A0012K62
944A0288H07	5/8	7/8-14	1 1/16-12	980A0012K66
944A0288H08	3/4	1 1/16-12	1 1/16-12	980A0012K66
944A0288H09	3/4	1 1/16-12	3/4-16	980A0012K62
944A0288H10	3/4	1 1/16-12	7/8-14	980A0012K64
944A0288H11	3/4	1 1/16-12	1 5/16-12	980A0012K69
944A0288H12	7/8	1 3/16-12	1 3/16-12	980A0012K68
944A0288H13	1	1 5/8-12	1 5/16-12	980A0012K69
944A0288H14	1	1 5/16-12	1 1/16-12	980A0012K66
944A0288H15	1 1/4	1 5/8-12	1 5/8-12	980A0012K71
944A0288H16	1 1/2	1 7/8-12	1 7/8-12	980A0012K72

1. In Inches

Form 070.252-SPL (2012-02)
Supersedes: S70-252 SPL (FEB99)
Subject to change without notice
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