

# PARTS LIST

Part No. 1056546 3rd. Edition

**S83F**  
**FEED LEG**  
**DRILL**



**GARDNER-DENVER**

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**MAINTENANCE**

A preventive maintenance program for the S83F Feed Leg Drill should start with the selection of a good grade of high film strength rock drill oil. All major oil companies are prepared to recommend and furnish lubricants that have proved satisfactory for rock drill service. A Gardner-Denver line oiler will greatly extend the life and improve the operation of the S83F Drill. Oil should show on the drill steel shanks if the drill is receiving sufficient lubrication.

It is essential to keep the chuck wear within the proper limits to assure the right alignment between the drill steel and the piston hammer. Worn Chucks are the cause of crowned shanks; this promotes rapid cupping of the faces to the piston hammer. Steel misalignment also results in damage to the water tube.

It is important that the clearance between the cylinder liner and the neck of the hammer be held within fairly close limits. Excessive clearance between these parts results in hammer breakage, weak rotation and decreased drilling speed. To test for excessive clearance, allow the piston hammer to fall by its own weight toward the front end. If it strikes the front end, there is insufficient cushion between the hammer and the cylinder liner.

Drilling efficiently may also be vitally affected when rotation speed becomes ineffective. The rotation parts should be carefully inspected and excessively worn parts should be replaced. The pawl springs should be replaced when the tension is lost; the pawls should always snap back into proper position when springs with proper tension are used. For extra long usage, the pawls may be reversed.

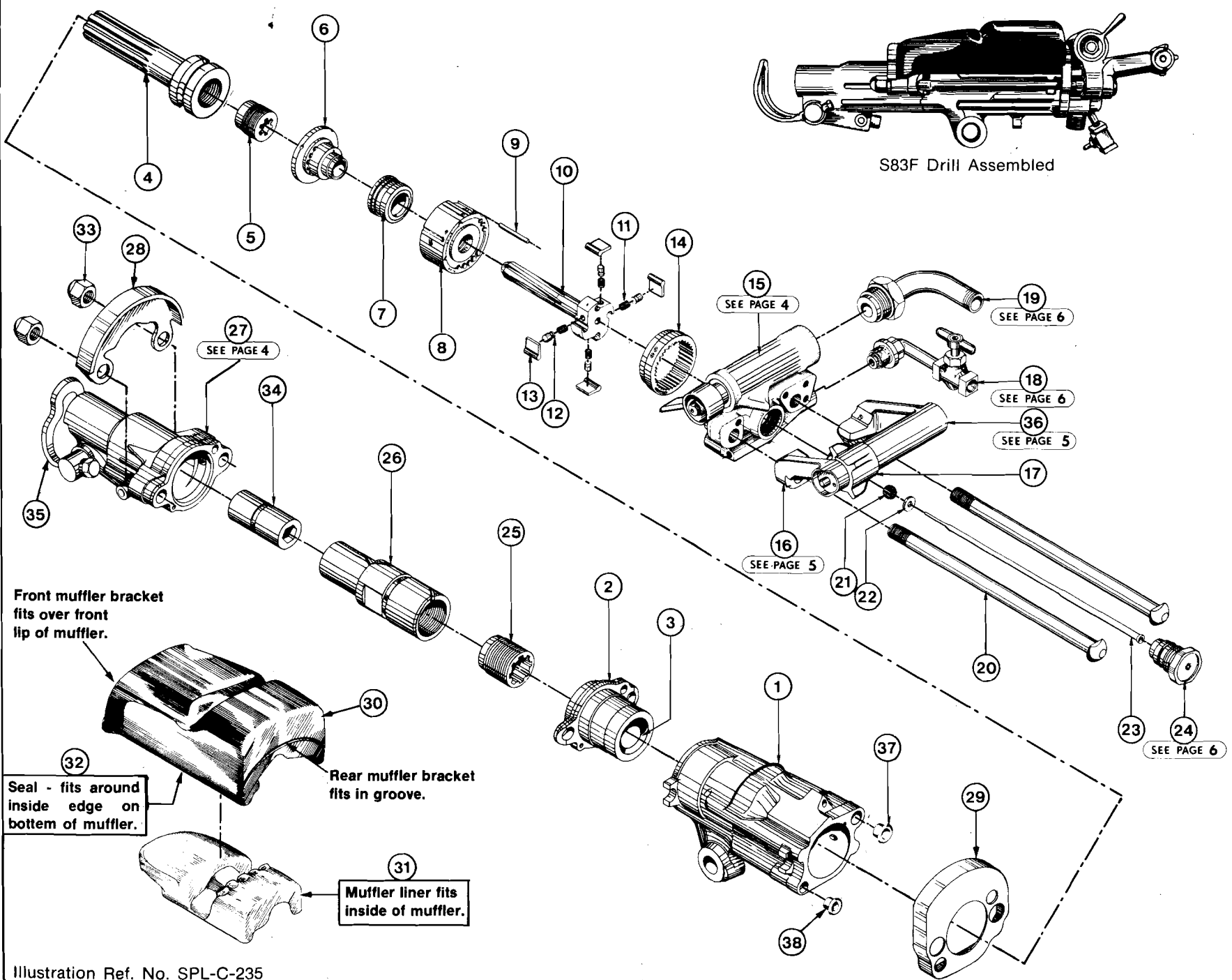
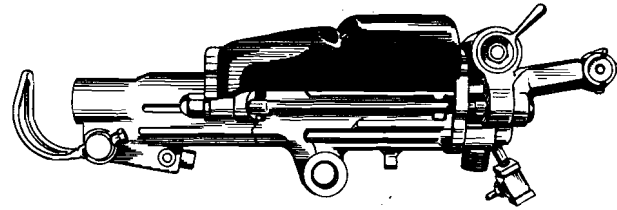
When a Chuck Driver Nut or a Rifle Nut is replaced, it should always be applied with grease, oil, or white lead to both internal and external threads to insure a good fit and maximum life.

Fogging at the exhaust indicates water in the cylinder and usually means that the water tube gasket needs replacing. Fogging at the Chuck End usually indicates that the water tube has been cut off.

Because of friction, air pipe lines of insufficient size and/or long air hoses greatly reduce the air pressure delivered. It is not uncommon to see sufficient air pressure being maintained at the compressor and a relative low pressure being delivered to the drill.

It is important to have the side rods tightened properly to prevent loss of air between the "D" Handle and the Backhead; this results in better drill performance.

If the above recommendations are followed, the results will be better performance at a lower maintenance cost.



Front muffler bracket fits over front lip of muffler.

Seal - fits around inside edge on bottom of muffler.

Rear muffler bracket fits in groove.

Muffler liner fits inside of muffler.

## S83F BASIC MODULE 1056025

- 4 1/4" COLLARED CHUCK LINER
- TRUNNION TYPE STEEL PULLER
- AUTOMATIC WET GLAND
- POLYURETHANE MUFFLER

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	S83F1T	Cylinder	22	1739A	Tube Washer
2	S83F1B	Cylinder Bushing Assembly - includes Liner (S53F1L)	23	S63F27B	Water Tube - 1/16" Orifice
3	S53F1L	Liner	24	D83N40X	Automatic Wet Gland Assembly - See Page 6
4	1S83F9	Hammer	25	S63F7N	Chuck Driver Nut
5	S83F2528	Rifle Nut	26	S58F7DA	Chuck Driver
6	S83F15B	Valve Plug	27	1040906	Chuck End - See Page 4 for internal parts
7	S83F16	Automatic Valve	28	1057381	Front Muffler Bracket
8	S83F15	Valve Chest	29	1057726	Rear Muffler Bracket
9	S83F15D	Valve Chest Pin		1057795	Muffler Assembly - includes items 30, 31 and 32
10	S83F2628	Rifle Bar	30	1057796	Muffler
11	711C	Pawl Spring - 4 required	31	1057797	Liner
12	711B	Plunger - 4 required	32	1057799	Seal - not shown
13	R9111A	Pawl - 4 required	33	S583N	Side Rod Nut - 2 required
14	S83F3335	Ratchet Ring		1057778	7/8" Liner Module - includes Chuck Liner and Steel Puller
15	S83F2X	Backhead Assembly - See Page 4	34	1041277	7/8" Hex. Chuck Liner
16	S83F112ABX	D-Handle Assembly - See Page 5	35	S53F36A	7/8" Hex. Steel Puller
17	1053440	Throttle Handle		1057779	1" Liner Module - includes Chuck Liner and Steel Puller
18	S48F13X	Water Connection Assembly - See Page 6	34	1041285	1" Hex. Chuck Liner
19	RB83147X	Air Connection Assembly - See Page 6	35	S53F36B	1" Hex. Steel Puller
20	S83F3	Side Rod - 2 required			
21	729B	Tube Gasket			

# CHUCK END ASSEMBLY

S83F

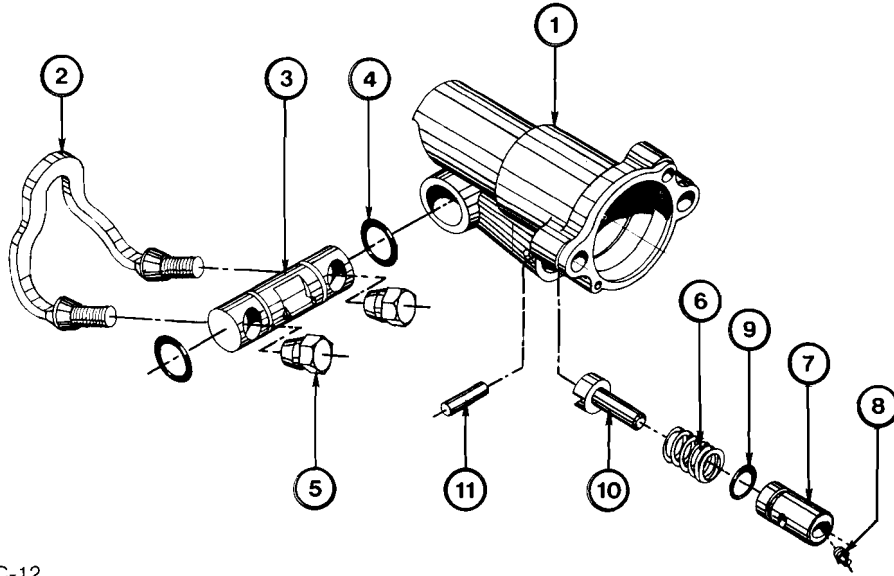
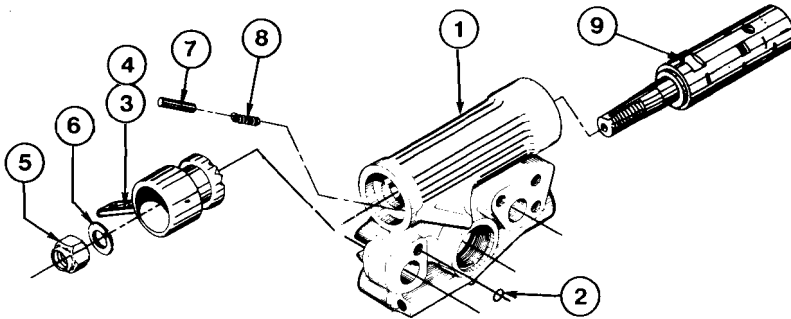


Illustration Ref. No. SPL-C-12

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	1040906	Chuck End	6	S58F36N	Spring
2	S53F36A	Steel Puller - 7/8" Hex	7	1053971	Retainer Assembly — Includes next 2 parts
2	S53F36B	Steel Puller - 1" Hex Note - Steel Pullers are included with Liner Modules - see page 3.	8	Z1	Grease Fitting
3	S53F36TA	Trunnion Assembly — Includes ORP214B O Ring	9	ORP210B	O Ring
4	ORP214B	O Ring - 2 required	10	1036703	Detent
5	S53F36N	Lock Nut - 2 required	11	1053943	Pin

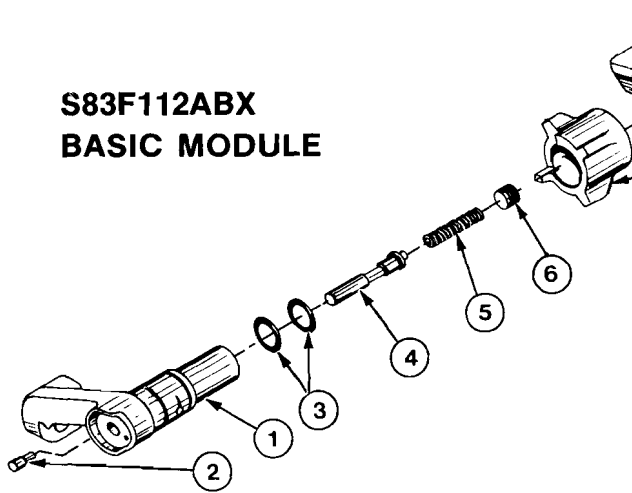
# BACKHEAD ASSEMBLY



S83F2X BACKHEAD ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION
1	S63F2	Backhead Assembly - Includes OR6 O Ring
2	OR6	O Ring - 4 required
3	S58F12E	Throttle Handle Assembly - Includes S58F12K Key
4	S58F12K	Key
5	S48F12N	Nut
6	WP31	Lock Washer
7	72A	Detent
8	72ES	Spring
9	S83F12B	Throttle Valve

## S83F112ABX BASIC MODULE



Not part of S83F112ABX assembly.  
Shown for location only.

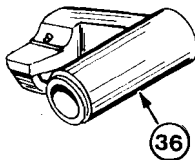
Not part of S83F112ABX assembly.  
Shown for location only.

REF. NO.	PART NO.	DESCRIPTION
	S83F112ABX	Handle Assembly - consists of the following parts:
1	S83F112AB	D-Handle Asm. - consists of Pin and O Rings
2	S83F113	Pin
3	ORP116A	O Ring - 2 required
4	S83F116C	Control Valve
5	S83F117	Spring
6	PP2A	Pipe Plug

Illustration Ref. No. SPL-A-80

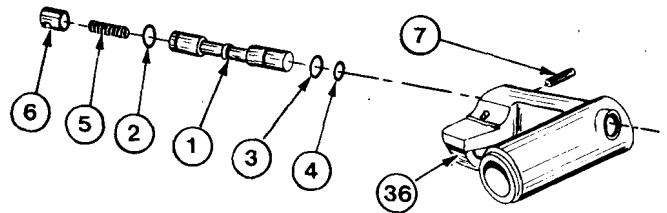
# D HANDLE ASSEMBLIES

## NON-POWER RETRACT MODULE 1056027



See page 2 for location.

## POWER RETRACT MODULE 1056026



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
36	S63F121	D-Handle	1	S83F118B	Control Valve Asm. - includes O Rings (ref. no. 2,3 and 4)
37	1S83F715	Seal - Open ✓	2	OR9	O Ring
38	1S83F715A	Seal - Solid ✓	3	CL5324P	O Ring
			4	OR7	O Ring
			5	S83F119B	Spring
			6	S83F120	Retainer
			7	ERP6	Pin
					See page 2 for location.
			36	S83F114	D-Handle Asm.
			37	1S83F715	Seal (open) - 2 required Use one open seal in place of solid seal (1S83F715A), item 38.

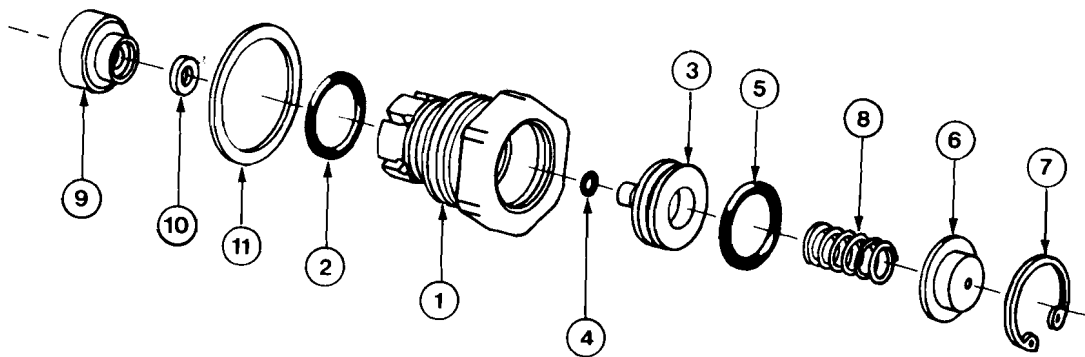
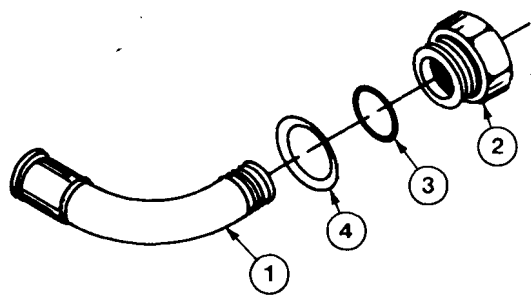


Illustration Ref. No. SPL-B-72

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	1056697	Gland Assembly - includes OR18 O Ring	6	D83N42	Cap
2	OR18	O Ring	7	TRR5	Retaining Ring
3	D83N41	Poppet Valve Assembly - includes OR3 and OR18 O Rings	8	D83N43	Spring
4	OR3	O Ring	9	D83N44	Retainer
5	OR18	O Ring	10	D83N45	Valve Seat
			11	D8340	Washer

**AIR AND WATER CONNECTIONS**

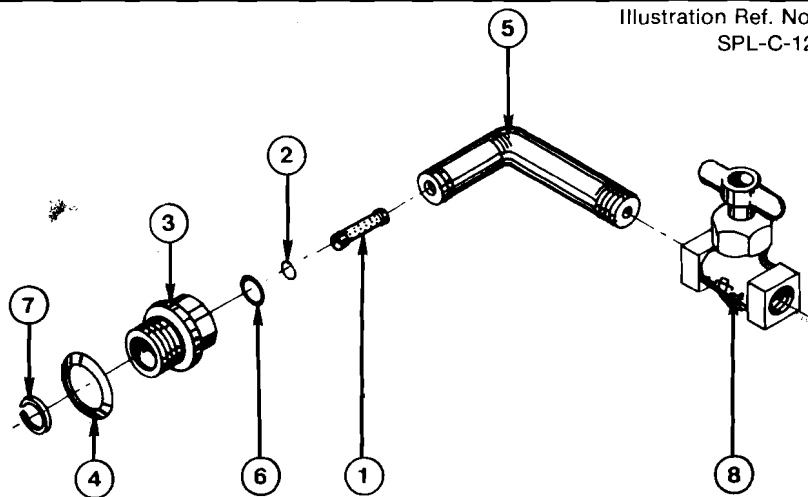
Illustration Ref. No. SPL-A-79



**RB83147X AIR CONNECTION**

REF. NO.	PART NO.	DESCRIPTION
1	1031946	Air Tube
2	RB83146	Swivel Spud Asm. - includes O Ring
3	OR21	O Ring
4	D73H146W	Washer

Illustration Ref. No. SPL-C-12



**S48F13X WATER CONNECTION**

REF. NO.	PART NO.	DESCRIPTION
1	S4813S	Screen Assembly
2	OR5	O-Ring
3	S4813E	Swivel Spud
4	S481W	Washer
5	S48F13T	Watcon Tube Assembly - Includes O-Ring
6	OR10	O-Ring
7	D9313R	Retainer Ring
8	760	Valve

Items listed below are available for use with the S83F Feed Leg Drill. Contact a Gardner-Denver Sales Office for price and delivery information.

- |   |  |
|---|--|
| 1S83F780X   | SOFT GOODS KIT - Contains all O Rings used in Backhead, D Handle, Auto Wet Gland, Air and Water Connections.                           |
| 1S83F702X   | OVERHAUL KIT - Includes the following parts:   |
| S53F1L  | Cylinder Liner   |
| S83F2528  | Rifle Nut  |
| S63F7N  | Chuck Driver Nut   |
| R9111A  | Pawl - 4 required  |
| 711B  | Plunger - 4 required   |
| 711C  | Pawl Spring - 4 required   |
| 1739A   | Tube Washer  |
| 729B  | Tube Gasket  |
| S53F36TA  | Trunnion Assembly - includes ORP214B O Rings   |
| ORP214B   | O Ring   |
| 1053971   | Retainer Assembly - includes ORP210B O Ring and Z1 Grease Fitting  |
| ORP210B   | O Ring   |
| Z1  | Grease Fitting   |
| 1057632   | Detent   |
| 1053943   | Pin  |
| S58F36N   | Spring   |
| S53F36N   | Lock Nut - 2 required  |
| 1052302   | Instruction Manual   |
| 1056226   | OVERHAUL KIT - Includes the following parts:   |
| S53F36A   | Steel Puller   |
| S53F36N   | Lock Nut - 2 required  |
| S53F36T   | Trunnion Assembly - includes (2) ORP214B O Rings   |
| INDIVIDUAL PARTS - available for the S83F include the following : |  |
| S53F36C   | Steel Puller - 1" Quarter Octagon  |
| S53F36E   | Steel Puller - 7/8" Hex. - Extended type for rubber collar.  |
| S53F36F   | Steel Puller - 7/8" Q.O.-1" Hex. - Extended type for rubber collar.  |
| S53F36G   | Steel Puller - 1" Quarter Octagon - Extended type for rubber collar.   |
| S83F2535  | Rifle Nut } - must be used together  |
| S83F2635  |  |
| S83F9E  | Hammer - Must use when using S5827G Air Tube, (standard Hammer 1S83F9 does not have a large enough hole for Air Tube to pass through). |
| S5827G  | Air Tube - Stainless Steel, .212 orifice - must use S83F9E Hammer.   |
| S63F27D   | Air Tube - .144 orifice  |
| S63F27  | Water Tube - .046 orifice  |
| S63F27W   | Water Tube - .093 orifice  |
| 1S83F127A   | Water Tube - .063 orifice  |
| 1057795   | Muffler Assembly - includes Muffler, Liner and Seal  |
| 1057796   | Muffler  |
| 1057797   | Liner  |
| 1057799   | Seal   |