

STINGRAY PUMP 20-70HP PARTS LIST

A. PARTS ORDERING. When ordering parts please provide the following information.

1. Serial number of pump (located on nameplate). Size of pump (3 X 2 X 10 or 4 x 5 x 11)
2. Part description (located on parts list on the following pages).
3. Part number (located on parts list).
4. Quantity of parts needed.

For replacement parts contact:

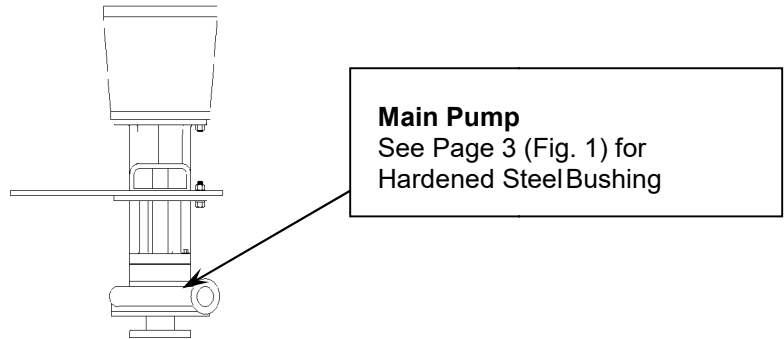
StingRay Tech Services
2450 Adie Road Suite 100
Maryland Heights, MO, 63043
www.stingrayservice.com

Toll-free: 800-543-6278
Switchboard: 314-567-3705
Fax: 314-567-6318
Email: lahey@stingwash.com

If motor or motor parts are required, please specify name of manufacturer, horsepower and frame size from motor nameplate.

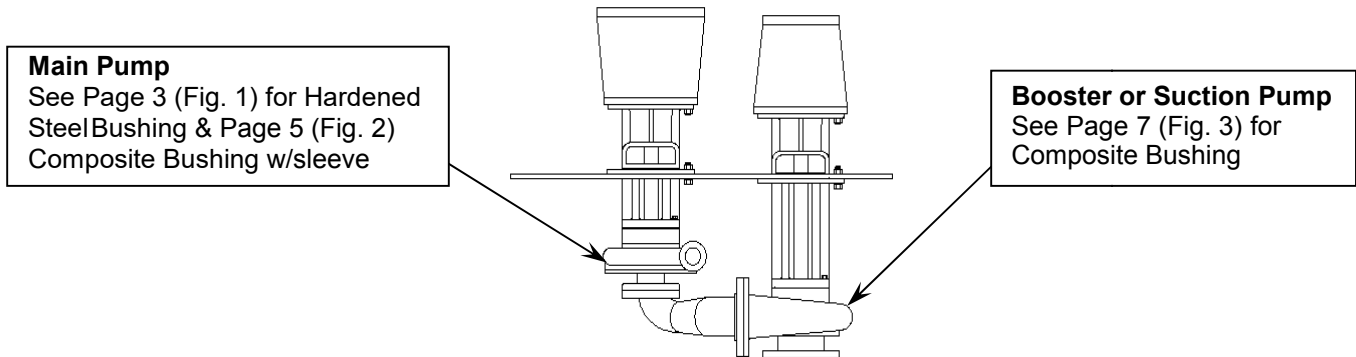
B. PARTS DESCRIPTION & DRAWINGS. To determine the proper drawing to reference, determine if you have a simplex pump (single wash pump) or a duplex pump (suction pump feeding main wash pump). Refer to the following figures:

Simplex (Single) Pump System



Main Pump
See Page 3 (Fig. 1) for
Hardened Steel Bushing

Duplex (Dual) Pump System



Main Pump
See Page 3 (Fig. 1) for Hardened
Steel Bushing & Page 5 (Fig. 2)
Composite Bushing w/sleeve

Booster or Suction Pump
See Page 7 (Fig. 3) for
Composite Bushing

In some applications the pump may have been upgraded to fit your cleaning application. Please review pump types below:

Standard Simplex (Fig. 1) and Duplex Pump (Fig. 1 & Fig. 3)

1530 Frame 3x2x10 Main Pump (Simplex) - SR30s, SR40s, SR52s, SR60s, SR72s, SR84s, SR100s
1530 Frame 4x5x10 Booster (Duplex) - SR30s., SR40s and SR52s

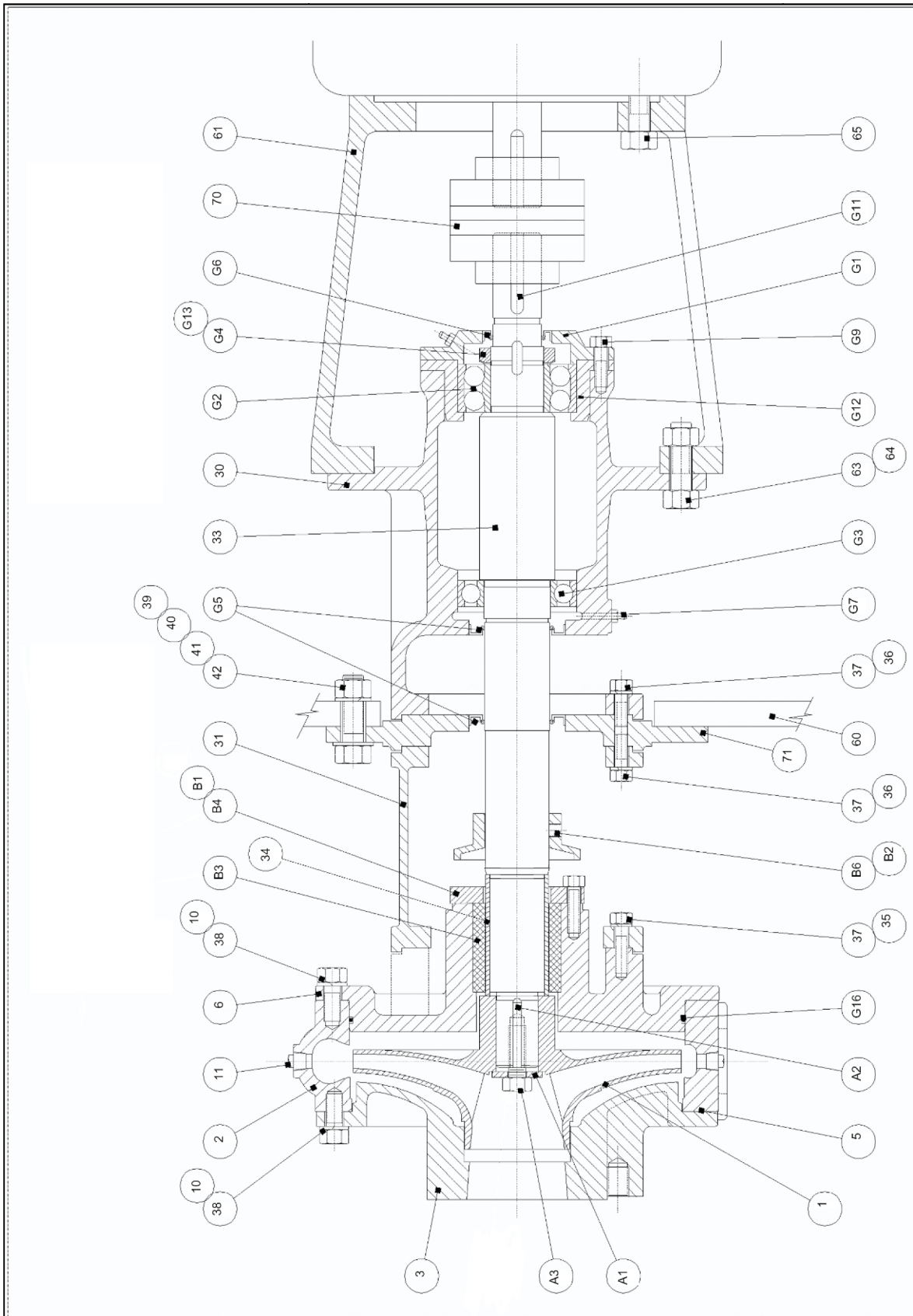
Aircraft Wheel w/SS Shafts Simplex (Fig. 1) and Duplex Pump (Fig. 1 & Fig. 3)

1530 Frame 3x2x10 Main Pump (Simplex) – SR3036, SR4036
1530 Frame 4x5x10 Booster Pump (Duplex) – SR6036

Heavy-Duty Duplex Pump (Fig. 2 & Fig. 3)

1531 Frame 3x2x10 Main Pump and 1530 Frame 4x5x11 Booster Pump - SR60s, SR72s, SR84s, SR100s, Clamshell and Inline Washers

Please use the following drawings to identify the parts except for the bearing frame, cartridges, caps, shafts, seals, and bearings. Please call StingRay Tech Services 800-543-6278 for information on these parts.



**Fig. 1 Standard & Aircraft Wheel 3x2x10 Main Pump Cut Away 1530 Frame
Hardened Steel Throttle Bushing**

**Standard & Aircraft Wheel 3x2x10 Main Pump 1530 Frame
Hardened Steel Throttle Bushing w/Sleeve**

Sym	Part #	PART DESCRIPTION		
			30220	"A" Kit
1	"A" Kit	Impeller	30281	"B" Kit
			51173	"C" Kit
2		Volute		
3	"A" Kit	Suction head		
4	"A" Kit	Gasket (suction head)		
6	53037	Backhead		
10		½"-13 Capscrew (suction head and backhead-Volute)		
11		Plug (casing)		
30	30300	Bearing frame 1530		
31	52306	Column		
33	53203	Shaft (Standard)		
	30334	Shaft (Aircraft Wheel)		
34	"B" Kit	Shaft sleeve		
35		3/8"-16 Capscrew (column-backhead)		
36		3/8"-16 Capscrew (frame-column)		
37		3/8" Lockwasher (column-backhead, column-base)		
38		½" Lockwasher (suction head and backhead-Volute)		
39		¾"-10Capscrew (column-base)		
40		¾" Hex nut (column-base)		
41		¾" Washer (column-base)		
42		¾" Lockwasher (column-base)		
60		Baseplate		
61	52395	Intermediate 15HP-20HP		
	52390	Intermediate 30HP		
	52392	Intermediate 40HP-50HP		
63		¾"-10 Hex head bolt (frame-intermediate)		
64		¾"-10 Hex nut (frame-intermediate)		
65		¾"-10 Hex head bolt (motor-intermediate)		
70	72556/	Coupling 40-50HP		
	71919	Coupling 30HP		
71		Ring		
A1	"A" Kit	Impeller washer		
A2	"A" Kit	Impeller key		
A5	"A" Kit	5/8"-11 Impeller Bolt		
B1	"B" Kit	Locking ring		
B2	"B" Kit	Slinger		
B3	"B" Kit	Throttle bushing		
B4	"B" Kit	3/8"-16 Capscrew (locking ring-backhead)		
B6	"B" Kit	Setscrew (slinger)		
G1	53044	Bearing cap		
G2	"C" Kit	Thrust bearing		
G3	"C" Kit	Radial bearing		
G4	"C" Kit	Bearing locknut		
G5	"C" Kit	Lip seal (frame)		
G6	"C" Kit	Lip seal (bearing cap)		
G7		Grease zerk		
G9		3/8"-16 Hex head bolt (bearing cap-frame)		
G10		Plug		
G11		Coupling key		
G12	53045	Bearing cartridge		
G13		Bearing lockwasher		
G16	46790	O-ring		

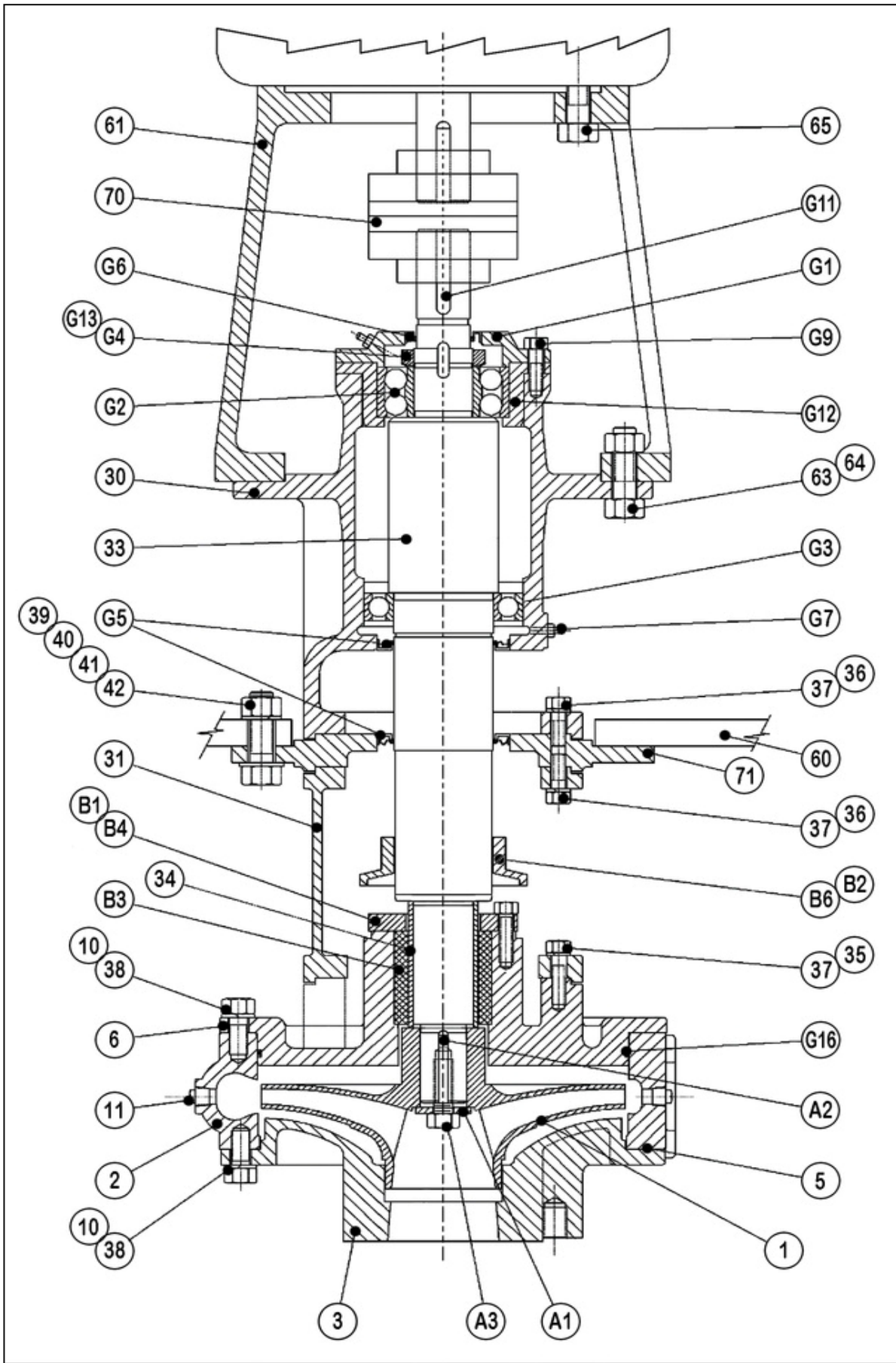


Fig. 2 Heavy-Duty 3x2x10 Main Pump Cut Away 1531 Frame Composite Throttle Bushing

Heavy-Duty 3x2x10 Main Pump 1531 Frame Composite Throttle Bushing w/Sleeve			
Sym	Part #	PART DESCRIPTION	
1	"A" Kit	Impeller	30220 "A" Kit
2		Volute	85170 "B" Kit
3	"A" Kit	Suction head	85240 "C" Kit
4	"A" Kit	Gasket (suction head)	
6	53037	Backhead	
10		1/2"-13 Capscrew (suction head and backhead-Volute)	
11		Plug (casing)	
30		Bearing frame 1530 (Call)	
31	52306	Column	
33	85241	Shaft	
34	"B" Kit	Shaft sleeve	
35		3/8"-16 Capscrew (column-backhead)	
36		3/8"-16 Capscrew (frame-column)	
37		3/8" Lockwasher (column-backhead, column-base)	
38		1/2" Lockwasher (suction head and backhead-Volute)	
39		3/4"-10Capscrew (column-base)	
40		3/4" Hex nut (column-base)	
41		3/4" Washer (column-base)	
42		3/4" Lockwasher (column-base)	
60		Baseplate	
61	52392	Intermediate 40HP-50HP	
63		3/4"-10 Hex head bolt (frame-intermediate)	
64		3/4"-10 Hex nut (frame-intermediate)	
65		3/4"-10 Hex head bolt (motor-intermediate)	
70	72556	Coupling 40-50HP	
71		Ring	
A1	"A" Kit	Impeller washer	
A2	"A" Kit	Impeller key	
A5	"A" Kit	5/8"-11 Impeller Bolt	
B1	"B" Kit	Locking ring	
B2	"B" Kit	Slinger	
B3	"B" Kit	Throttle bushing	
B4	"B" Kit	3/8"-16 Capscrew (locking ring-backhead)	
B6	"B" Kit	Setscrew (slinger)	
G1	53044	Bearing cap	
G2	"C" Kit	Thrust bearing	
G3	"C" Kit	Radial bearing	
G4	"C" Kit	Bearing locknut	
G5	"C" Kit	Lip seal (frame)	
G6	"C" Kit	Lip seal (bearing cap)	
G7		Grease zerk	
G9		3/8"-16 Hex head bolt (bearing cap-frame)	
G10		Plug	
G11		Coupling key	
G12	53045	Bearing cartridge	
G13		Bearing lockwasher	
G16	46790	O-ring	

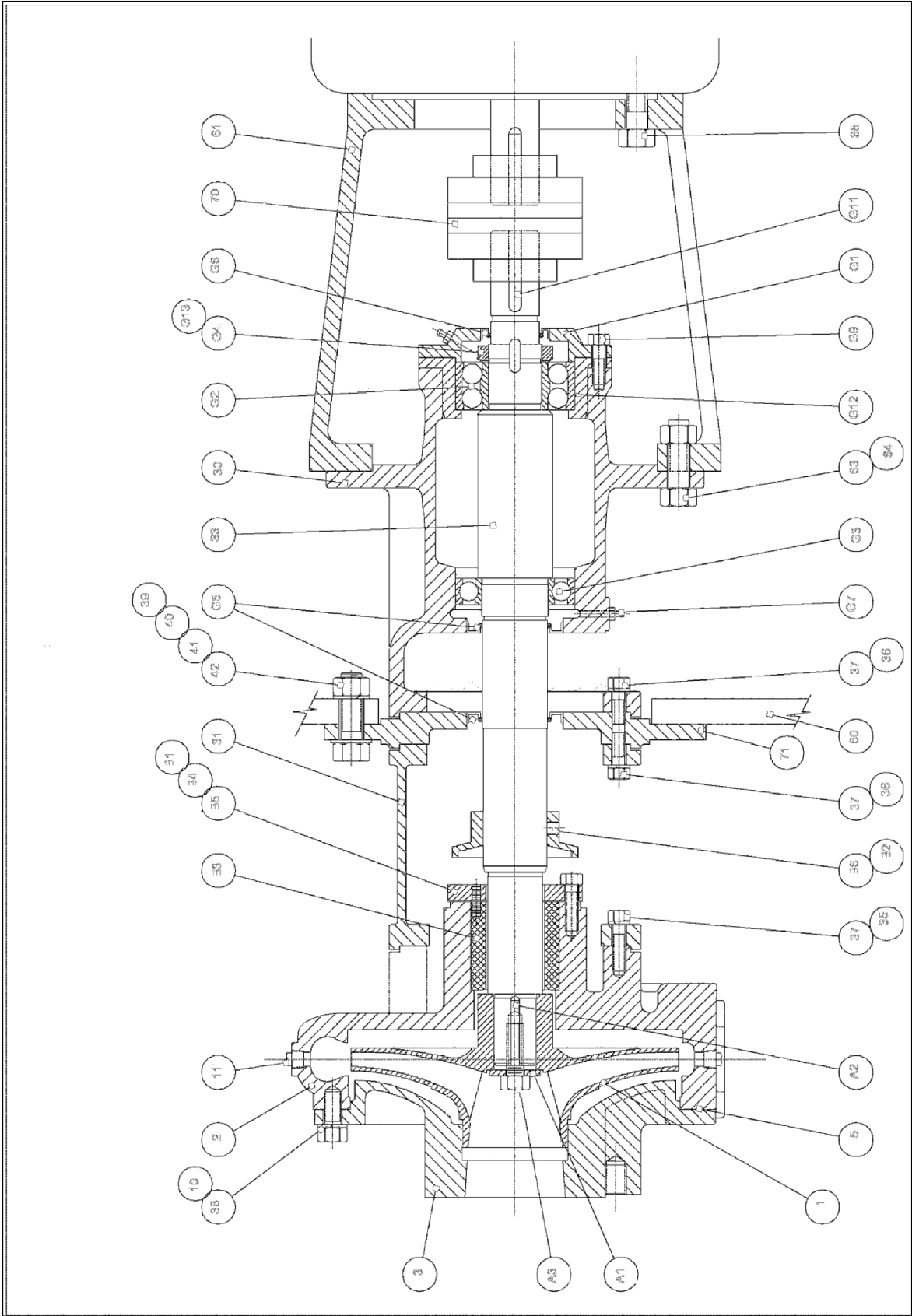


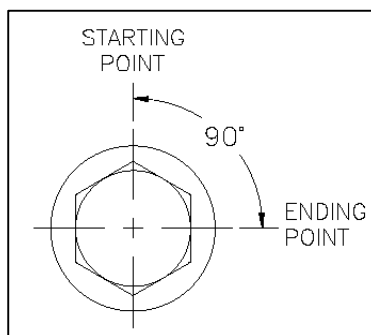
Fig. 3 Standard, Aircraft Wheel and Heavy-Duty 4x5x11 Booster Pump Cut Away 1530 Frame Composite Throttle Bushing

Standard, Aircraft Wheel and Heavy-Duty 4x5x11 Booster Pump 1530 Frame Composite Throttle Bushing w/o Sleeve					
Sym	Part #	PART DESCRIPTION		Part #	Kit
1	"A" Kit	Impeller		30230	"A" Kit
2		Volute/ Backhead		30280	"B" Kit
3	"A" Kit	Suction head		51173	"C" Kit
4	"A" Kit	Gasket (suction head)		52238	Gasket Kit
10		1/2"-13 Capscrew (suction head--volute/backhead)			
11		Plug (casing)			
30	30300	Bearing frame		Optional Upgrade: Harden Steel Bushing	
31	52306	Column			
33	51174	Shaft (Standard or Heavy-Duty)			
	30335	Shaft (Aircraft Wheel)			
35		3/8"-16 Capscrew (column-backhead)			
36		3/8"-16 Capscrew (frame-column)			
37		3/8" Lockwasher (column-backhead, column-base)			
38		1/2" Lockwasher (suction head -Volute)			
39		3/4"-10Capscrew (column-base)			
40		3/4" Hex nut (column-base)			
41		3/4" Washer (column-base)			
42		3/4" Lockwasher (column-base)			
60		Baseplate			
61	52395	Intermediate 15HP-20HP			
63		3/4"-10 Hex head bolt (frame-intermediate)			
64		3/4"-10 Hex nut (frame-intermediate)			
65		3/4"-10 Hex head bolt (motor-intermediate)			
70	72555	Coupling			
71		Ring			
A1	"A" Kit	Impeller washer			
A2	"A" Kit	Impeller key			
A5	"A" Kit	5/8"-11 Impeller Bolt			
B1	"B" Kit	Locking ring			
B2	"B" Kit	Slinger			
B3	"B" Kit	Throttle bushing			
B4	"B" Kit	3/8"-16 Capscrew (locking ring-backhead)			
B5	"B" Kit	Setscrew (locking ring-bushing,)			
B6	"B" Kit	Setscrew (slinger)			
G1	53044	Bearing cap			
G2	"C" Kit	Thrust bearing			
G3	"C" Kit	Radial bearing			
G4	"C" Kit	Bearing locknut			
G5	"C" Kit	Lip seal (bearing frame, column)			
G6	"C" Kit	Lip seal (bearing cap)			
G7		Grease zerk			
G9		3/8"-16 Hex head bolt (bearing cap-frame)			
G10		Plug			
G11		Coupling key			
G12	53045	Bearing cartridge			
G13		3/8" Bearing lockwasher			
		3" Duplex Pipe Connection Gasket (Not Shown)			
		4" Duplex Pipe Connection Gasket (Not Shown)			

Table 5. Recommended Torque Values (except for impeller capscrew)

Bolt Size	Material Torque Value ft-lbs	
	Steel (or otherwise noted)	316 Stainless Steel
1/4"-20	5	7
5/16"-18	11	12
3/8"-16	18	21
1/2"-13	39	45
5/8"-11	83	97
3/4"-10	105	132
7/8"-9	160	203
1"-8	236	300

Torque the impeller cap-screw as shown below.



Impeller Cap Screw & Washer

Torque Capscrew – 1/4 turn

FIGURE 1: IMPELLER CAP-SCREW TORQUE METHOD

Follow these instructions for installation of the impeller cap-screw

1. Install the flange head capscrew with washer into the shaft. Hand-tighten the screw until it is snug in the shaft and clamps the impeller washer tightly. Then, tighten the capscrew 1/4 turn (90°), approximately 80-90 ft-lbs.
2. To ensure proper seating, loosen the capscrew, re-snug and retighten the capscrew 1/4 turn (90°).

Use Loctite 262 Red when installing capscrew

STINGRAY Pump Repair Kits & Application Upgrades

Please reference the appropriate exploded view drawing to verify the correct part number for your application.



A Kit Main Pump 20-50 hp
 Impeller (1) trimmed to size
 Suction Head (1)
 Volute Gasket (1)
 Bolts (8)
 Impeller Bolt (1)
 Impeller Washer (1)
 Impeller Key (1)
 O-Ring (1)

1530-30220



B Kit Main Pump 15-50 hp
 Composite Throttle Bushing (1)
 Shaft Sleeve SS (1)
 Step Key SS (1)
 Locking Ring (1)
 Slinger (1)
 Hex Bolts (2)
 Set Screws (2)

1530-85170



B Kit Main Pump 15-50 hp
 Throttle Bushing Hardened Steel
 (1)
 Shaft Sleeve SS (1)
 Step Key SS (1)
 Locking Ring (1)
 Slinger (1)
 Hex Bolts (2)
 Set Screws (2)

1530-30281



C Kit Main Pump 15-50 hp
 Oil Seal (1)
 Viton Seal (2)
 Radial Bearing (1)
 Thrust Bearing (1)
 Bearing Locking Nut (1)

1530-51173
 1531 HD-85240



Main Pump 20-50 hp Shafts are available in several different options of material and use. W/ indicates the use of a shaft sleeve in the application.

1530 w/ -53203
 1530 SS w/-30334
 1531 HD w/-85241



A Kit Booster Pump 15-20 hp
 Impeller (1) trimmed to size
 Suction Head (1)
 Volute Gasket (1)
 Bolts (12)
 Impeller Bolt (1)
 Impeller Washer (1)
 Impeller Key (1)
 O-Ring (1)

1530-30230



B Kit Booster Pump 15-50 hp
 Composite Throttle Bushing (1)
 Step Key (1)
 Locking Ring (1)
 Slinger (1)
 Locking Ring Set Screw (2)
 Hex Bolts (2)
 Set Screws (2)

1530-30280



Booster Pump 15-20 hp Shaft

1530-51174
1530-30335



Duplex Gasket Kit

1530-52238



Viton Lip Seals
 Stainless Steel Housing

1530 SS-30425

STINGRAY Pump Motor Couplings



Assy,Pump Coupling,15&20hp
1 Coupling 1-3/8
1 Coupling 1-5/8
1 Insert

72555



Assy,Pump Coupling,30hp,Simplex
1 Coupling 1-3/8
1 Coupling 1-5/8
1 Insert
1 Collar

71919



Assy,Pump Coupling,40&50hp
1 Coupling,1-3/8
1 Coupling,1-7/8
1 Coupling,Body

72556



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