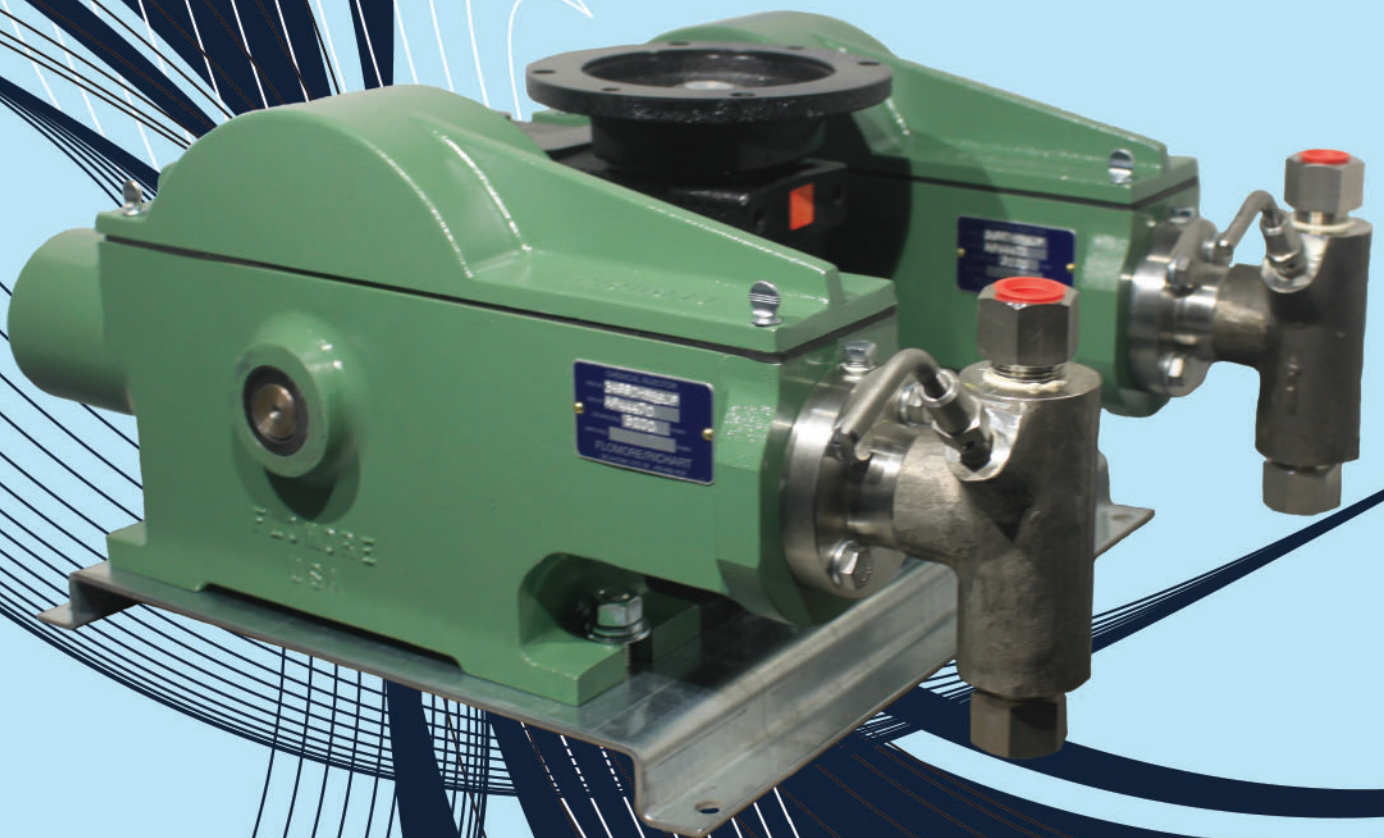


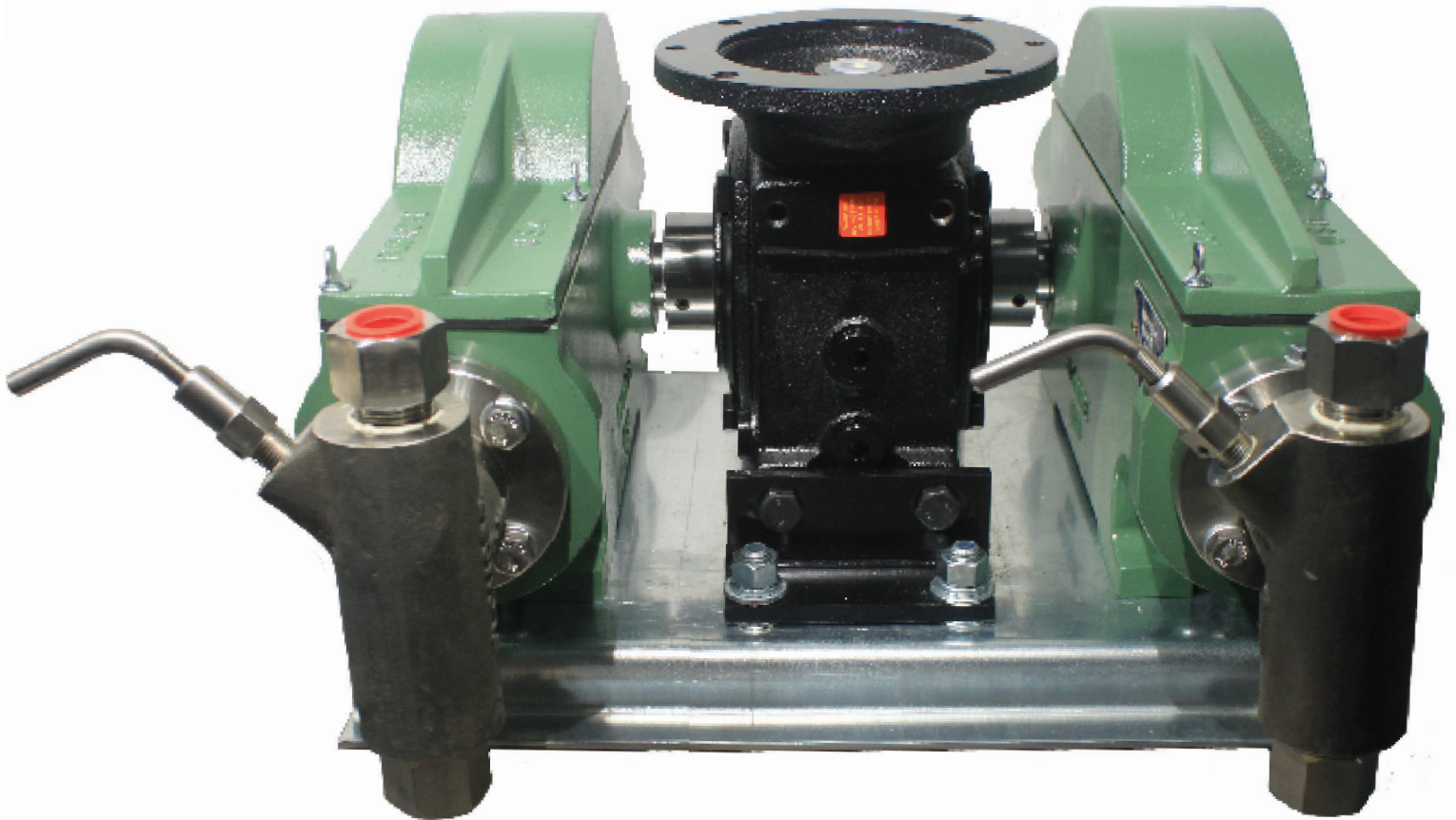
# **FLOMORE**

*Different By Design*

# 3400 Series Injector



# *3400 Series Injector*



## *3400 Series Features*

*Oil Less Drive Unit*

*1 Horsepower Motor Standard*

*(2 HP Optional, 1 or 3 phase, TEFC or Explosion Proof)*

*Available in 2 stroke rates; 30 or 60 Strokes Per Minute*

*Multiple plunger sizes available; 3/8", 1/2", 3/4", 1", 1 1/4"*

*Adjustable while Running*

*Maximum Discharge Pressure; 7000 psi with 3/8" Plunger*

*Max Volume; 880 GPD with a 1 1/4" Plunger*

# *Installation and Operating Instructions*

## *Operating Instructions*

1. Location of pump is important:
  - Long suction lines should be avoided
  - Flooded suction must be provided as much as possible
  - Line check should be installed at pump discharge connection and injection point
  - Electrical starters and disconnect switches should be installed properly
  - It is recommended that the pump be mounted to a solid surface
  - Minimize restrictions to media flow in all connecting lines
2. Ensure suction and discharge connections are seal tight. (“suction” connection is located at the bottom of the fluid, “discharge” is located at the top.)
3. Using proper electrical service, connect electrical to the provided conduit.
4. Verify stroke adjustment screws for maximum stroke length.
5. Evacuate any air in suction lines by opening the priming valve on each head assembly.
6. Turn power on. Turn off immediately if you hear any abnormal sounds, this may cause damage to the pump. Correct any problems before turning power back on.
7. While priming the fluid end, watch pump operation for any problems or issues. Pump operation should be smooth.
8. Close priming valve once all air has been cleared from the suction line.
9. Stop the pump if packing does not have proper sealing. Adjust packing and start pump once again.
10. Set the stroke adjustment screws for desired flow rate tightening the lock nut to set in place.

## *Preventive Maintenance*

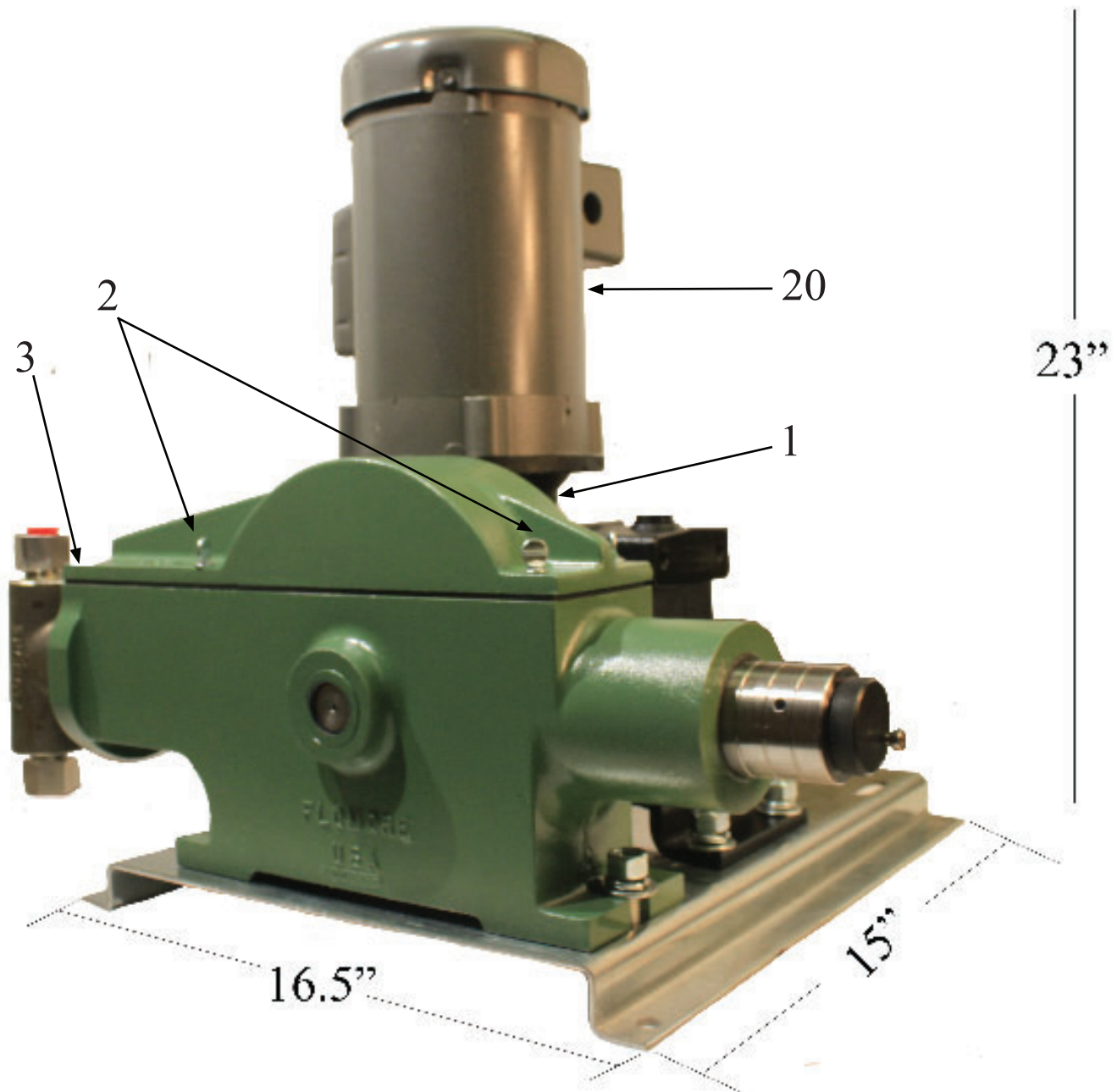
1. Examine pump operation periodically, applying a small amount of grease to the cam bearing and crosshead areas that cycle through linear bearings.
2. Packing should be checked for leaking regularly. If leaking, turn pump off and slightly tighten the gland nut making sure to not overtighten. This will shorten the life of the packing.

## *Troubleshooting*

1. Motor is not running
  - Is the motor stalled? Was the max discharge pressure reached?
  - Is the circuit breaker or fuse in working condition?
  - Has the motor overheated?
2. Pump Not Stroking
  - Stroke adjustment screw has backed out.
  - Broken Drive clip, plunger not fastened into crosshead
  - Cam not engaged on the drive shaft
  - Crosshead in a bind - stroke adjuster
3. No fluid movement
  - Packing leak
  - Discharge valve seats not seating
  - Suction Valves not seating - Flow gauge moving back and forth at the same level.
  - Air trapped in fluid Injection head. Reprime the pump using the priming valve.
  - Blockage in suction or discharge line.

# 3400 Series Power End

## Injector Dimensions (Simplex and Duplex)



*\*\*Total Length of Quadplex Injector is 32"*

# *3400 Series Power End*

## *Performance Data*

<i>Model #</i>	<i>Plunger Size</i>	<i>Strokes Per Minute</i>	<i>Discharge Pressure</i>	<i>Gallons Per Day</i>	
			<i>Maximum</i>	<i>Minimum</i>	<i>Maximum</i>
34-33SS	3/8"	30	7500	2	18
34-63SS		60		3.5	35
34-35SS	1/2"	30	4000	7	70
34-65SS		60		14	138
34-36SS	3/4"	30	3200	16.5	165
34-66SS		60		33	330
34-37SS	1"	30	1000	28	280
34-67SS		60		56	560
34-38SS	1 1/4"	30	500	44	440
34-68SS		60		88	800

## *Injector Weight*

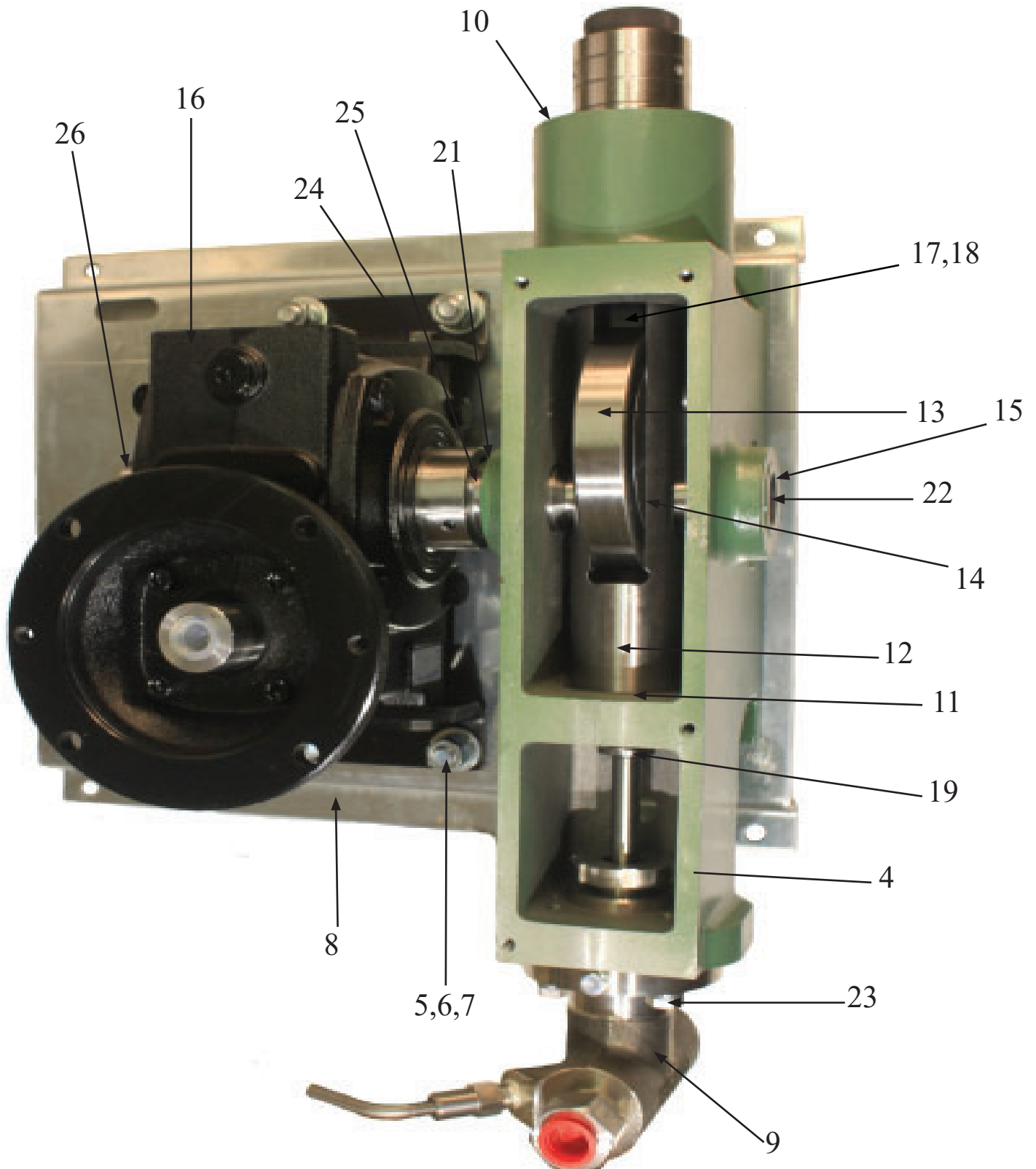
<i>Injector Type</i>	<i>Weight (lbs.)</i>
Simplex	80
Simplex with Motor	130
Duplex	120
Duplex with Motor	175

## *Parts List*

<i>Item #</i>	<i>Part #</i>	<i># Req'd.</i>	<i>Description</i>	<i>Material</i>
1	C-2150	1	Cover	Aluminum
2	A-0136	4	Thumb Screw	Plated Steel
3	B-1647	1	Cover Gasket	Nitrile
20	A-6766	1	Electric Motor	◆

*See Page 7 for complete Parts List*

# 3400 Series Injector



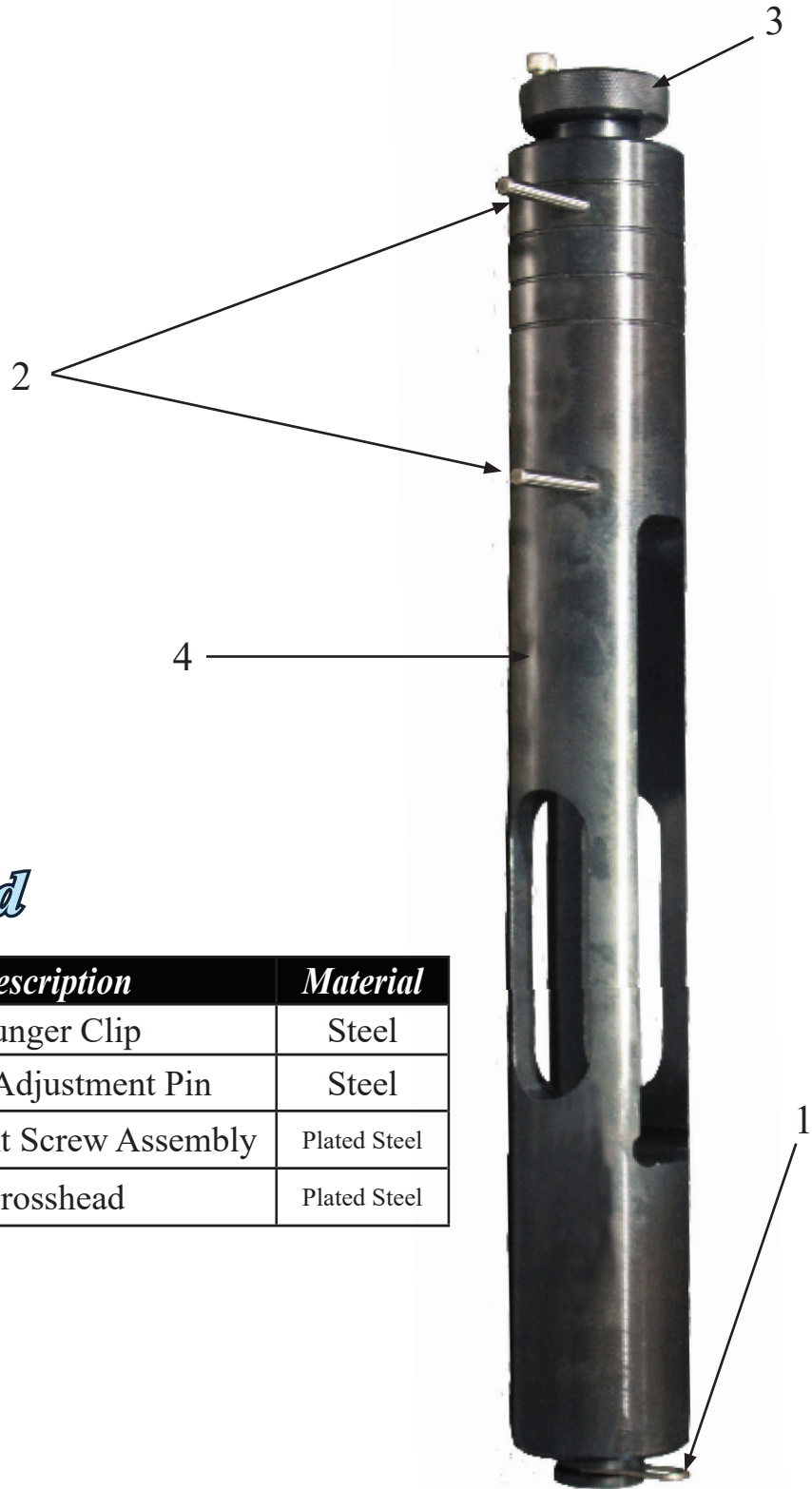
# 3400 Series Injector

## Part Numbers

Item #	Part #	# Reqd.	Description	Material
1	C-2150	1	Cover	Aluminum
2	A-0136	4	Thumb Screw	Plated Steel
3	B-1647	1	Cover Gasket	Nitrile
4	D-0528	1	Pump Housing	Aluminum
5	A-6440	6	Hex Bolt	Plated Steel
6	S-0010F.3	6	Hex Nut	Plated Steel
7	B-0316-5	16	Flat Washer	Plated Steel
8	C-2165	1	Base Plate	Plated Steel
9	See page 11	1	Head Assembly	Various
10	A-6474	1	Sleeve Bearing	◆
11	A-6473	1	Sleeve Bearing	◆
12	C-2152	1	Crosshead	Plated Steel
13	B-1646	1	Cam Assembly	Steel
14	A-6470	1	Drive Shaft Key	Steel
15	A-6476	1	Drive Shaft Bearing	◆
16	B-1648	1	Gear Reducer 30 spm	◆
	B-1649	1	Gear Reducer 60 spm	◆
17	A-6471	1	Stroke Adjustment Shaft	Plated Steel
18	A-6477	1	Stroke Adjustment Screw	Steel
19	A-6573	1	Drive Clip	Steel
20	A-6766	1	Electric Motor	◆
21	A-6475	1	Drive Shaft Bearing	◆
22	C-2172	1	Driveshaft - Duplex	Steel
	C-2173	1	Driveshaft - Simplex	Steel
23	A-4456	4	Hex Bolt	Stainless Steel
24	A-6442	4	Hex Bolt	Plated Steel
25	A-6443	1	Snap Ring	304 Stainless Steel
26	A-6494	1	Shaft Key for Gear Reducer	Plated Steel

Recommended Spare Parts in Green

# 3400 Series Components



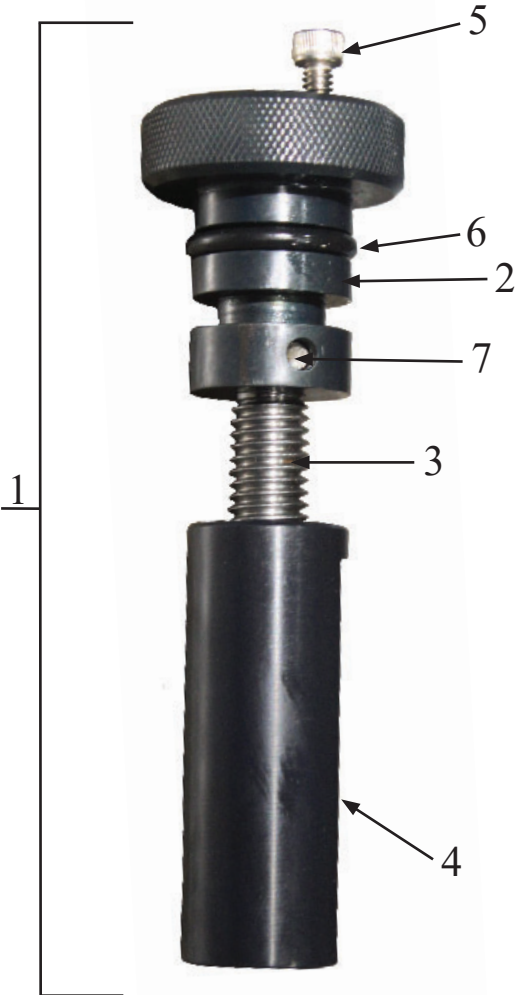
## C-2152 Crosshead

Item #	Part #	Description	Material
1	A-6573	Plunger Clip	Steel
2	A-6479	Stroke Adjustment Pin	Steel
3	A-7158	Adjustment Screw Assembly	Plated Steel
4	C-2152	Crosshead	Plated Steel

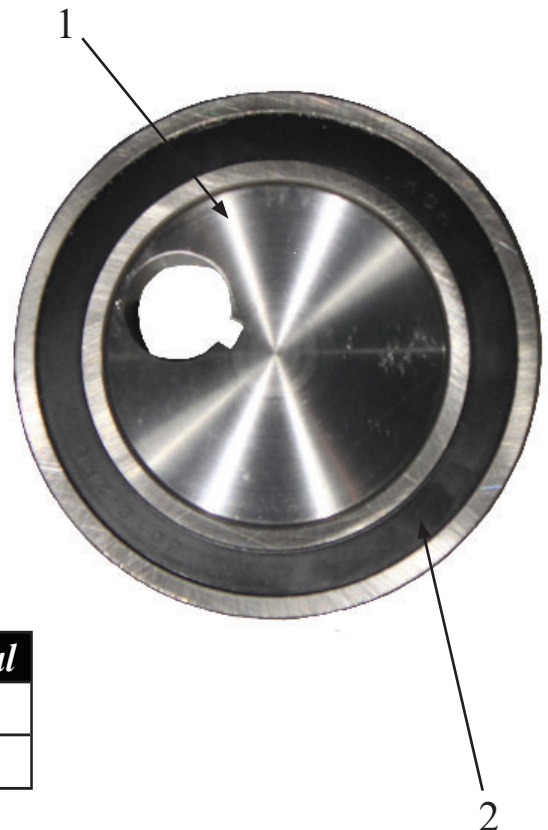


# 3400 Series Components

## A-7158 (See Left) Adjuster Assembly



Item #	Part #	Description	Material
1	A-7158	Adjustment Screw Assembly	Plated Steel
2	A-6477	Stroke Adjustment Knob	Plated Steel
3	A-6472	Stroke Adjustment Screw	Steel
4	A-6471	Stroke Adjustment Shaft	Plated Steel
5	A-6480	Adjustment Knob Set Screw	Stainless Steel
6	A-7204	Adjustment Screw O'Ring	Buna
7	A-6478	Adjustment Screw Pin	Steel

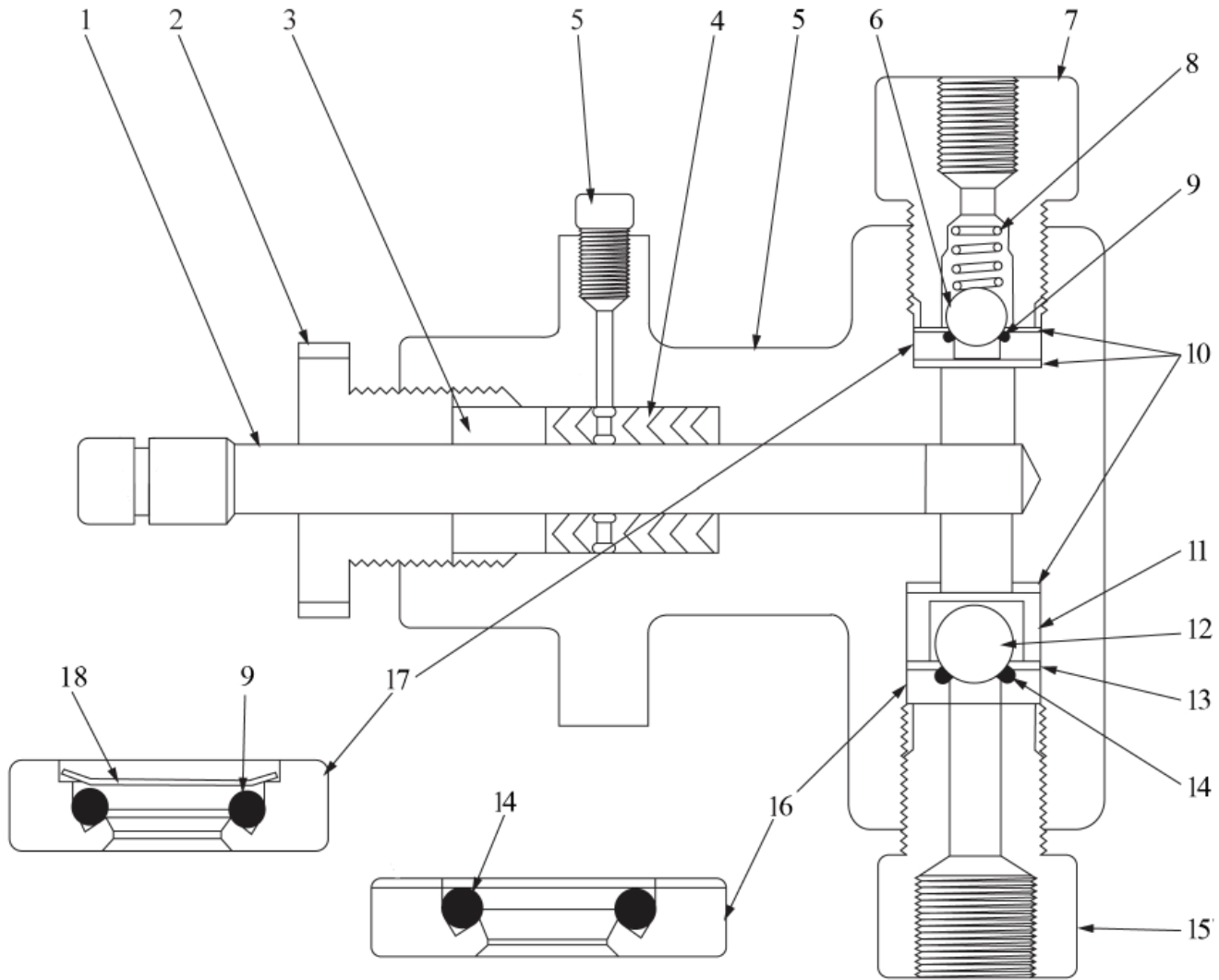


## B-1646 (See Right) Cam Assembly

Item #	Part #	Description	Material
1	B-1645	Drive Cam	Steel
2	A-6463	Cam Bearing	◆

# *Injector Head*

*(For 3/8", 1/2", 3/4", 1", and 1 1/4" Heads)*



## *Packing Options*

Size	Material						
	Buna	Viton	Teflon	Tef/Bun	Tef/Vit	Hard	Super Duty
3/8"	A-1456	A-4101	A-1234	A-1455	A-1643	A-1875	A-7172
1/2"	A-0959	A-4103	A-1012	A-0958	A-0961	A-1876	A-7173
3/4"	A-2771	A-4657	A-2988	A-2888	A-2989	A-2772	A-7174
1"	A-0050	A-4658	A-1013	A-1017	A-4659	A-4135	A-7175
1 1/4"	A-0405	A-4480	A-1014	A-1015	A-4409	A-4133	A-7176

# *Injector Head*

## *Ductile Iron Head Parts List*

Item #	Part #					# Req'd.	Description	Material
	3/8"	1/2"	3/4"	1"	1 1/4"			
◆	C-2161	C-2162	C-2146	C-2147	C-2148	1	Head Assembly	Stainless Steel with Stainless Steel Trim
1	A-6498	A-6499	A-6459	A-6460	A-6461	1	Plunger	Armaly - 17.4 pH Stainless Steel
2	D-0375	D-0500	D-0750	D-1000	A-0403	1	Packing Gland Nut	304 Stainless Steel Plated Steel
3	A-0957	A-1219	A-2769	A-0043	A-0404	1	Packing Gland	304 Stainless Steel
*4	A-1456	A-0959	A-2771	A-0050	A-0405	1	Plunger Packing (STD)	Buna-N
5	C-0147	C-0140	C-0340	C-0138	C-0135	1	Head Body	Stainless Steel
6	A-0054					1	Discharge Check Ball	316 Stainless Steel
7	A-2456					1	Discharge Bushing	304 Stainless Steel
8	A-0077					1	Check Ball Spring	316 Stainless Steel
*9	A-2097					1	Discharge O'Ring	Buna-N
10	A-2350					3	Gasket	304 Stainless Steel
11	A-0444					1	Ball Cage	17.4 pH Stainless Steel
12	A-0054	A-0053				1	Suction Check Ball	316 Stainless Steel
13	A-2350	A-2338				1	Gasket	304 Stainless Steel
*14	A-2097	A-0612				1	Suction O'Ring	Buna-N
15	A-2455					1	Suction Bushing	304 Stainless Steel
16	B-0698					1	Suction Seat Assembly	304 Stainless Steel
17	B-0368					1	Discharge Seat As- sembly	304 Stainless Steel
18	A-3523					1	Retaining Ring	304 Stainless Steel

*Recommended Spare Parts in Green*

*\*Alternate Components Available*

## *Alternate Components*

Item #	Part #	Description	Material
9	A-2336	O'Ring	Viton
	A-7115-110	O'Ring	SDP
14	A-2184	O'Ring (1/2" - 1 1/4")	Viton
	A-2336	O'Ring (1/4" & 3/8")	
	A-7115-111	O'Ring	SDP

*Product Suggestion: Hard packing for 3000PSI and above service*

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