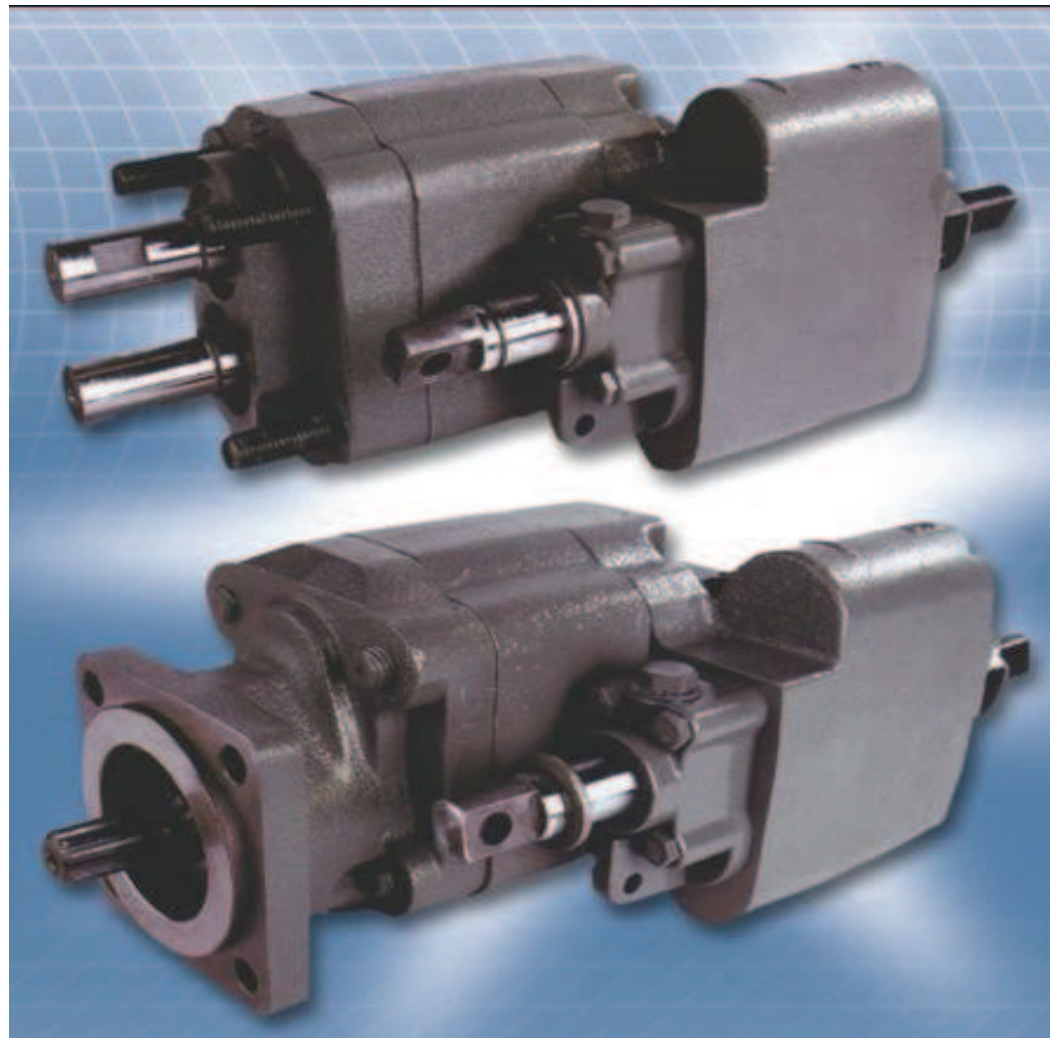


# C101/C102 Series G101/G102 Series

Product Range Information

Dynaco Hydraulic Co., Ltd.



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**Document no.** SN091200.1.2  
Date: 09.12

For further advanced information on the products mentioned,  
please contact your pertinent marketing partner, refer to  
<http://www.dynacohydraulic.com> on the Internet

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Applications:

- Dump Truck
- Dump Trailer



 **WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document & other information from Dynaco (Ningbo) Hydraulic, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Dynaco (Ningbo) Hydraulic and its subsidiaries at any time without notice.

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## **Pump/Valve Products**

### **C101/C102**

- 39 & 48 gpm @ 1800 rpm
- Pressures to 2500 psi
- Speeds to 2400 rpm
- 2- or 3-line installations
- Choice of mountings
- Air remote operators available
- Relief valve protects pump & cylinder

### **G101/G102**

- 9.5, 21 & 29 gpm @ 1800 rpm
- Pressures to 2500 psi
- Speeds to 2400 rpm
- 2- or 3-line installations
- Choice of mountings
- Air remote operators available
- Relief valve protects pump & cylinder

## **The Widest Choice**

We design and manufacture more pump/valve combinations for dump trucks and trailers than any other manufacturer for two reasons: Dynaco pump/valve family offer the widest choice of flow ratings; these units provide the most reliable, trouble-free control for dump trucks.

### **Underbody Hoist to Big Trailers - We Have Your Pump**

Dynaco dump body pump/valve products deliver the right flow range for most applications at 1800 rpm/2000 psi. Models with two shafts (C101/G101) can be mounted to remote PTO's operating in either direction of rotation. Single shaft units (C102/G102) mount directly to the vehicle drive train. All can be connected in two- or three-line circuits to control single-acting cylinders. All units are supplied with factory-set 2000 psi relief valves

### Coding: C101/C102 Series

Example:



Mounting	
1	Remote Mount
2	Direct Mount

Displacements		
	Gear Width	in. <sup>3</sup> /rev.
20	2.0	5.1
25	2.5	6.4

Rotation C102 Direct Mount Only	
Blank	Clockwise
1	Counter Clockwise

### Coding: G101/G102 Series

Example:



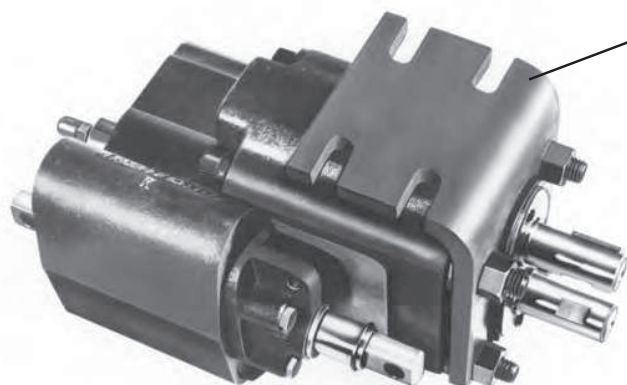
Mounting	
1	Remote Mount
2	Direct Mount

Displacements		
	Gear Width	in. <sup>3</sup> /rev.
0.7	0.7	1.5
1.5	1.5	3.0
2.0	2.0	3.9

Rotation G102 Only	
R	Clockwise
L	Counter Clockwise

Mounting Flange G102 Only	
2S	SAE 2 Bolt B
CS	Cloverleaf Mount
4S	SAE 4 Bolt B

Spool Options	
1	Detent
2	Spring Return



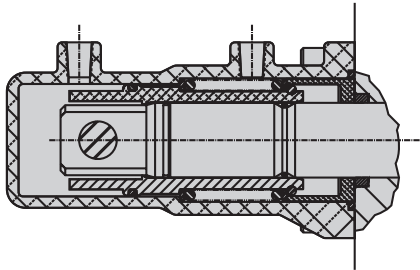
Mounting Bracket Part Numbers		
C101	Mounting Bracket	314-0100-005
C102	Support Bracket	391-1832-323

**Air Shift Kits**

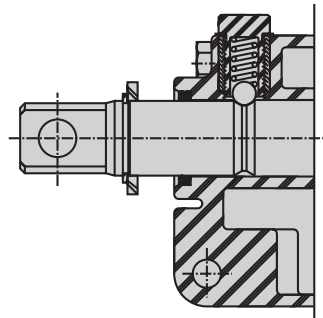
All dump units can be shifted from the cab by cable or by air with our Air Shift kit.

The kit consists of an air cylinder that mounts on the valve unit, a pneumatic control valve that mounts in the cab, 30' of air hose and all necessary connections. A minimum of 80 psi air pressure is required, which can be taken off the brake system or on-board compressor. The shifter can be retro-fit easily to existing pump/valve units by following the simple instructions with each kit.

<b>C101/C102 AIR SHIFT KITS</b>	<b>10 Digit Part No.</b>
ASK-6 without Toggle with Air Hose, Fittings .....	314-9414-006
ASK-13 with Air Metering Controller .....	314-9414-013
ASK-17 without Air Hose, Fittings .....	314-9414-017
<b>G101/G102 AIR SHIFT KITS</b>	<b>10 Digit Part No.</b>
ASK-16 without Toggle with Air Hose, Fittings .....	308-9414-016
ASK-20 with Air Metering Controller .....	308-9414-020



**C101 Air-Shift Installation**



**Standard C101**

## Model Features

Model Number	Maximum psi	gpm@1800 rpm				Maximum Speed	Available Features
		¾"	1½"	2"	2½"		
G101	2500	9.5	21	29		2400 rpm	A,B,D*,E
G102	2500	9.5	21	29		2400 rpm	A,B,C*,F
C101	2500			39	48	2400 rpm	A,B,D*,E
C102	2500			39	48	2400 rpm	A,B,C*,F

\* All C102/G102 units can be ordered for either direction of rotation from the factory;  
All C101/G101 units can be field set for either direction of rotation.

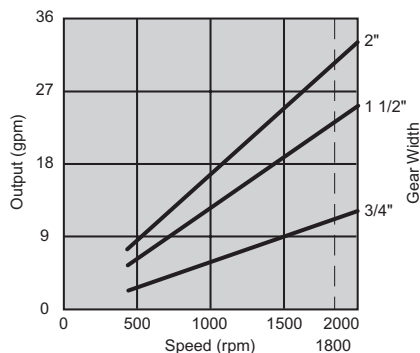
- A: Two- or Three-line Hookup**
- B: Remote Valve Actuation**
- C: Factory Set Rotation**
- D: Either Shaft Rotation**
- E: 1.00" diameter Keyed Shaft**
- F: SAE "B" Splined Shaft (13 teeth, 16/32 pitch)**

## Performance Curves

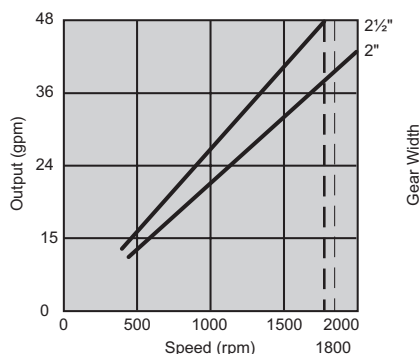
### Average Pump Output @ 2000 psi

Performance data shown are average results based on a series of production units and are not representative of any one unit. Tests were run with the oil reservoir temperature at 120°F, viscosity of 150 SUS at 100°F. Requests for more specific data should be directed to our Product Support Department through your sales representative.

#### G101/G102



#### C101/C102



## Warning

These warnings apply to all pump/valve units.

- A device to lock the control lever in the neutral position must be installed. Pump/valve units without a lockable control lever may allow the dump bed to rise unintentionally while in transit. Failure to provide such a lock may lead to loss of vehicle control, accidental injury and/or property damage.
- Failure to disengage the PTO from driving the pump/valve when in transit may allow the dump bed to rise unintentionally. This may lead to loss of vehicle control, accidental injury and/or property damage.
- The pump/valves are equipped with a neutral stop device for those applications using a pull-out cable. This device allows the pull-out cable to move the valve spool from the raise to the neutral position only. Since shock loading in the cable is possible, it is essential that a spring (Part no. 391-3581-854 or equal) be incorporated in the pull-out cable hookup. Failure to do so could result in breakage of the neutral stop device and could lead to injury. We recommend that the cable be fully enclosed and directly in line with the spool.
- Never work under a raised dump bed without first securely blocking the bed to prevent its accidental lowering.
- Three-line installations are recommended whenever possible. Three-line circuits consist of a pump inlet line, a line to the cylinder and a return line to tank. A sleeve must be installed in the pump's inlet to allow oil to circulate through the unit and return to tank when running in neutral. Lower operating temperatures and the ability to install a return-line filter are two advantages of a three-line circuit. Be sure the return line is always below the oil level in the reservoir. Two-line installations are for intermittent operation only.

**If you do not understand these warnings or have any questions about any of them, contact your distributor or the Product Support Group at: Phone (86-25 ) 85360418 or Fax (86-25) 89428524**

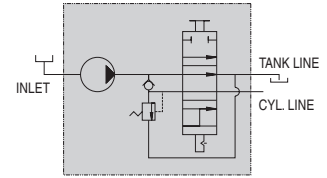
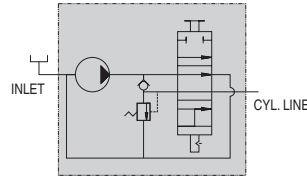


## Typical Flow Paths in C101/C102 Pump/Valve Units

### Explanation of single-acting valve.

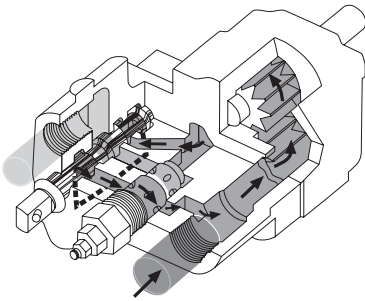
**C101/C102: 2-line Installation**  
For intermittent operation.

**C101/C102: 3-line Installation**  
For continuous or intermittent operation.

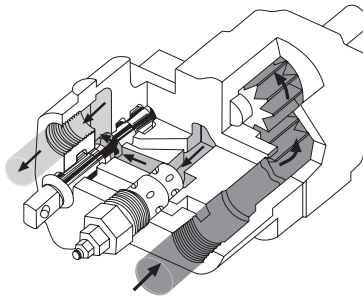


### 2-line Installation

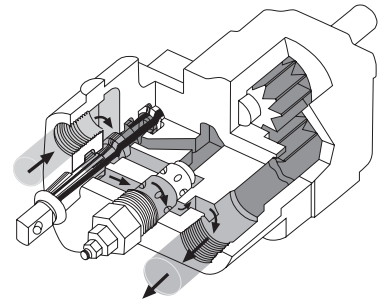
One line to the cylinder, one line to the reservoir.  
For intermittent operation only.



**Spool in Neutral:**  
Oil recirculates internally.



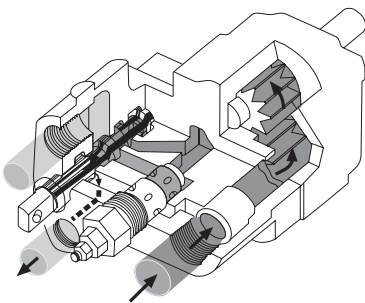
**Raise Position:**  
Oil is routed through work port to raise the cylinder.



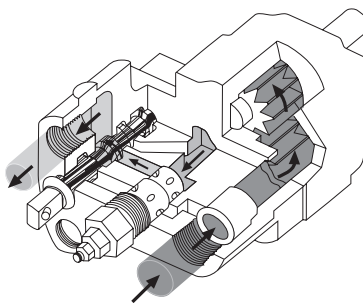
**Lower Position:**  
Oil flows from the cylinder through the relief valve to return to tank.

### 3-line Installation

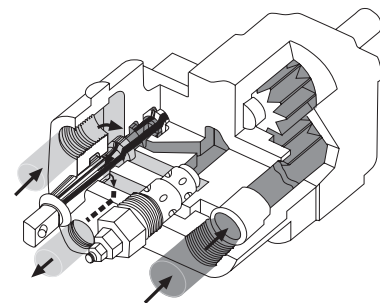
One line to the cylinder, two lines to the reservoir.  
For continuous or intermittent operation.



**Spool in Neutral:**  
Oil circulates through the pump and returns to tank.



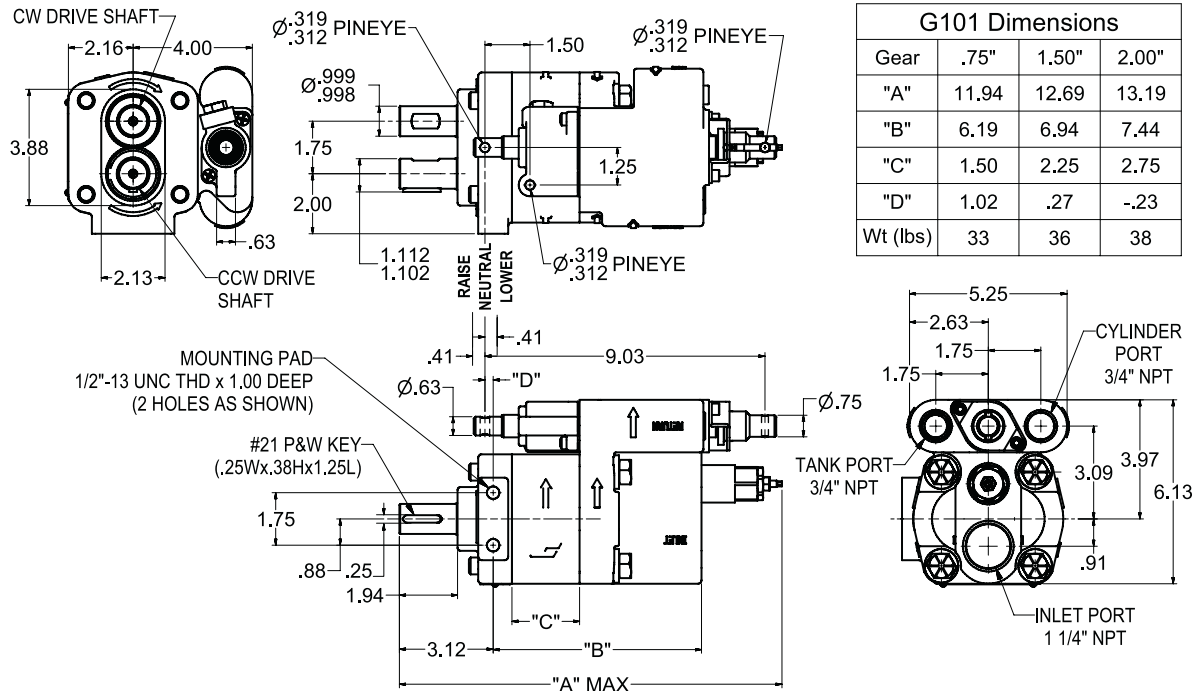
**Raise Position:**  
Oil is routed through work port to raise the cylinder.



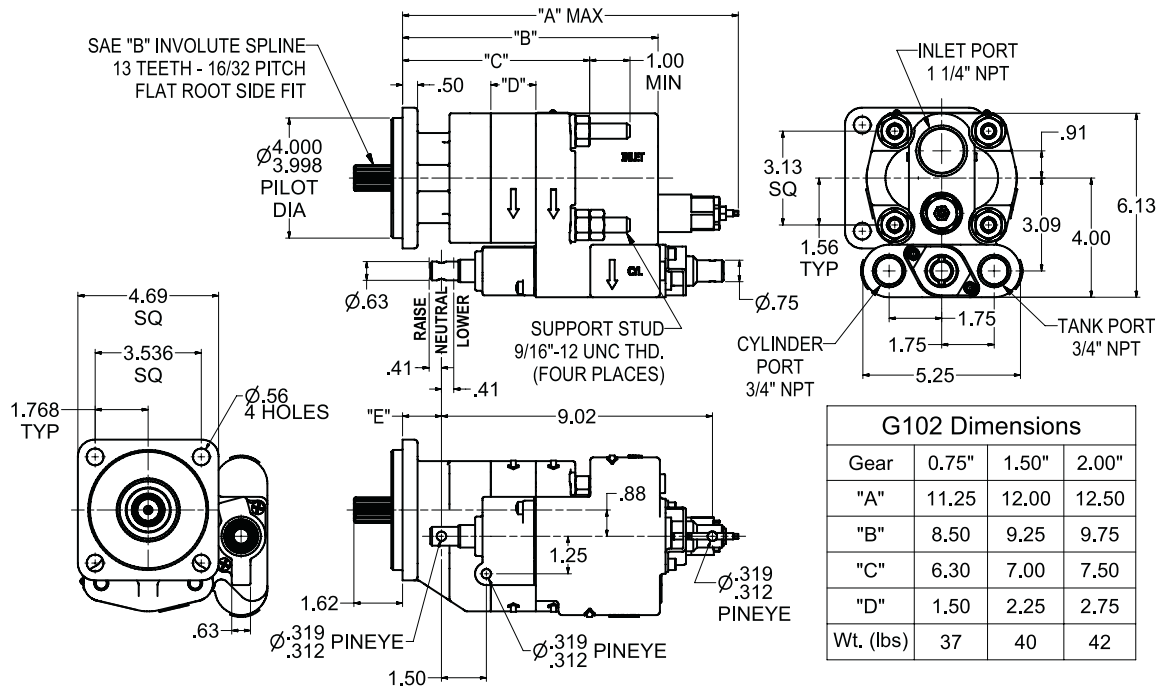
**Lower Position:**  
Oil flows from the cylinder, through the bottom port and returns to tank.

## Dimensions G101/G102

### G101



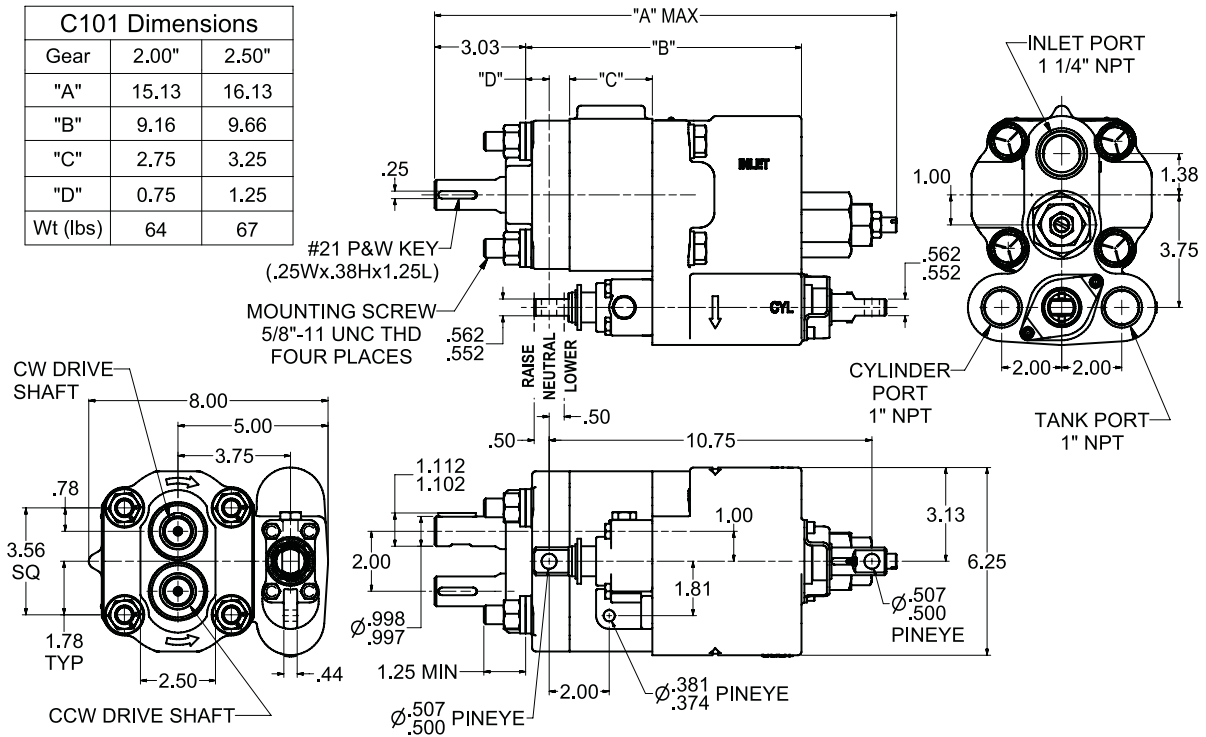
### G102 (CW Rotation Shown)



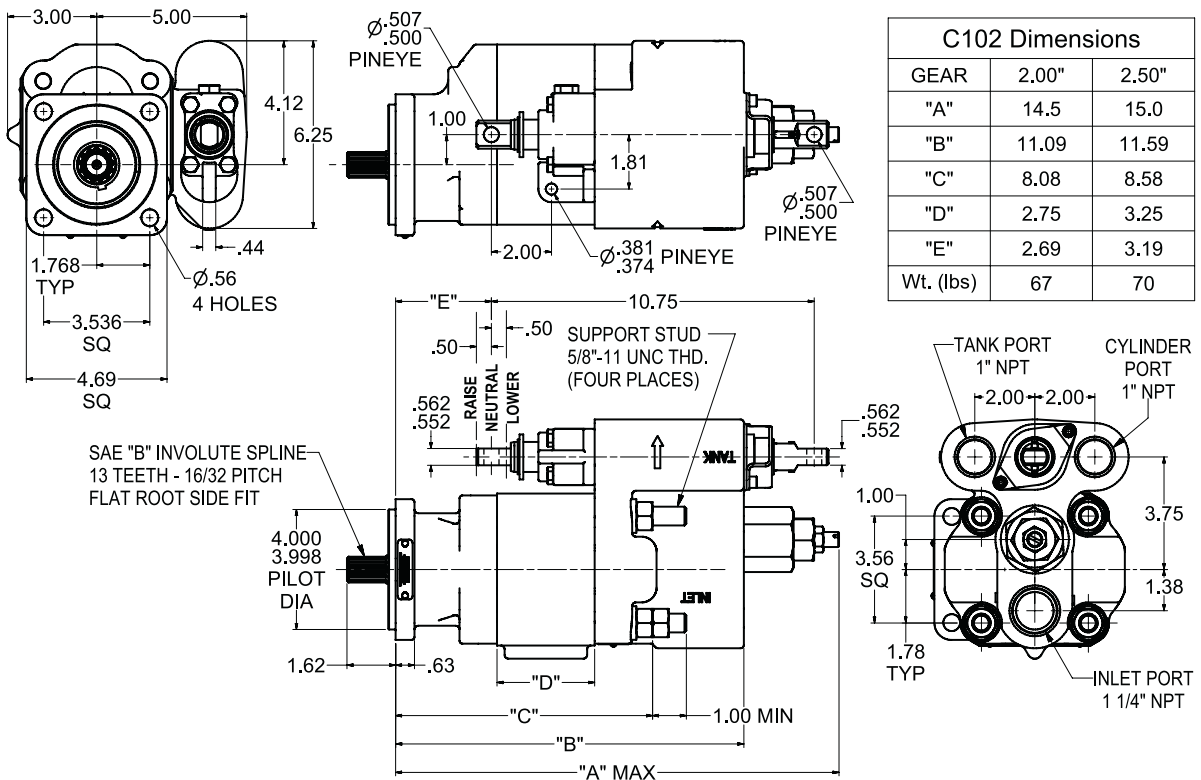
## Dimensions C101/C102

### C101

C101 Dimensions		
Gear	2.00"	2.50"
"A"	15.13	16.13
"B"	9.16	9.66
"C"	2.75	3.25
"D"	0.75	1.25
Wt (lbs)	64	67

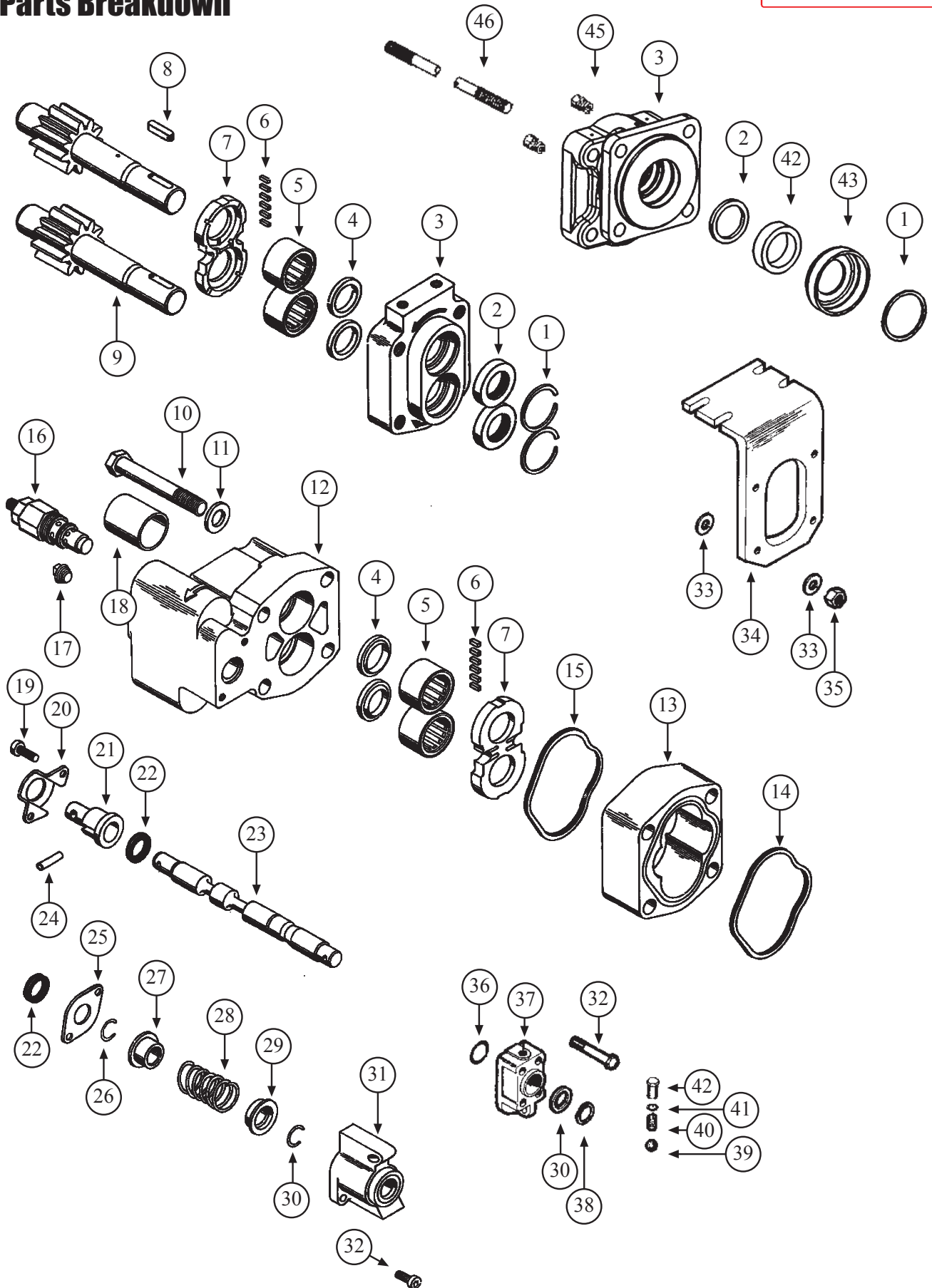


### C102 (CCW Rotation Shown)



C102 Dimensions		
GEAR	2.00"	2.50"
"A"	14.5	15.0
"B"	11.09	11.59
"C"	8.08	8.58
"D"	2.75	3.25
"E"	2.69	3.19
Wt. (lbs)	67	70

# Parts Breakdown



	Decription	Part #	Qty.	Series		Decription	Part #	Qty.	Series									
1	Snap Ring	391-2681-493	2	C	13	Gear Housing 2" 2 1/2" 3/4" 1 1/2" 2"	314-8020-100	1	C,C2									
		391-2686-065	1	C2			314-8025-100	1	C,C2									
		391-2681-487	2	G			308-8007-901	1	G,G2									
		391-2686-063	1	G2			308-8015-901	1	G,G2									
2	Lip Seal	391-2883-096	2	C	14	Gasket Seal	308-8020-901	1	G,G2									
		391-2883-115	1	C2			391-2884-021	2	C,C2									
		391-2883-119	2	G			391-2884-019	2	G,G2									
		391-2883-119	1	G2			355-9001-067	1	C,C2									
		313-5033-435	1	C2			355-9001-197	1	G,G2									
3	Shaft End Cover	308-5016-201	1	G	16	Relief Valve	391-2282-006	1	C,C2									
		308-5030-201	1	G2			391-2282-003	1	G,G2									
		391-2585-009	4	C			391-3283-052	1	C,G,C2,G2									
		391-2585-009	3	C2			19	Socket Hd. Cap Screw	391-1402-063	2	C,G,C2,G2							
391-2585-006	4	G	20	Bracket	391-0981-010	1			C,C2									
391-2585-006	3	G2			391-0981-007	1			G,G2									
391-0381-059	4	C,C2			391-1881-073	1			C,C2									
391-0381-068	4	G,G2			391-1881-072	1	G,G2											
5	Roller Bearing	391-2882-050	12	C,C2	21	Spool End Cap	391-1985-014	1	G,G2									
		391-2882-086	12	G,G2			391-2881-103	1	C,C2									
6	Pocket Seals	391-2185-016	2	C	22	Quad Ring Seal "O" Ring	(not serviceable)											
		391-2185-012	2	C2			23	Valve Spool	391-2085-009	1	C,G,C2,G2							
7	Thrust Plate	391-2185-013	2	G,G2	24	Spiral Pin			391-2183-124	1	G,G2							
		391-1781-021	1	C,G			25	Cover Plate	391-2681-486	1	G,G2							
		8	Shaft Key	391-1401-111					4	C	26	Retaining Ring	391-1642-136	1	G,G2			
9	Gear Set				314-2920-640	1							C	27	Spring Guide	391-3581-212	1	G,G2
					314-2925-640	1	C	28					Spring			391-1642-137	1	G,G2
					313-2920-130	1	C2									29	Spring Guide	391-3782-126
		313-2925-130	1	C2	30	Retainer Ring	308-4000-100		1	G,G2								
312-2907-842	1	G	31	End Cap			391-1401-082		4	C,C2								
312-2915-842	1	G					32	Cap Screw	391-1433-020	2	G,G2							
312-2920-842	1	G							33	Washer	391-3784-028	8	C					
312-2907-130	1	G2			34	Optional Bracket					314-0100-005	1	C					
312-2915-130	1	G2	35	Hex Nut							391-1451-076	4	C					
312-2920-130	1	G2					391-1451-076	6			C2							
10	Cap Screw	391-1401-111					4	C	36	Quad Ring Seal "O" Ring	391-1985-014	1	G,G2					
		391-1401-110			4	C	37	Detent Cap			391-2881-103	1	C,C2					
		391-1401-112	4	S	314-0100-003	1					C,C2							
		391-1401-395	4	G,G2	308-4000-102	1					G,G2							
		391-1401-381	4	G,G2	391-2688-003	1					C,C2							
		391-1401-382	4	G,G2	391-0282-009	1					C,G,C2,G2							
391-3784-029	4	C,C2	391-3581-383	1	C,G,C2,G2													
11	Washer	391-3782-146	4	G,G2	40	Detent Spring	391-3788-002	1	C,G,C2,G2									
		(not serviceable)					391-2583-079	1	C,G,C2,G2									
12	Port End Cover	(not serviceable)			45	Check Assembly 2" - 2 1/2" -	391-3383-069	1	G2									
							391-3383-087	1	C2									
							391-3381-040	1	G2									
							391-3681-001	2	C2,G2									
							391-1425-433	4	C2									
							391-1425-432	4	C2									

**KEY**

**C = C101 C2 = C102**  
**G = G101 G2 = G102**

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Subject to change.