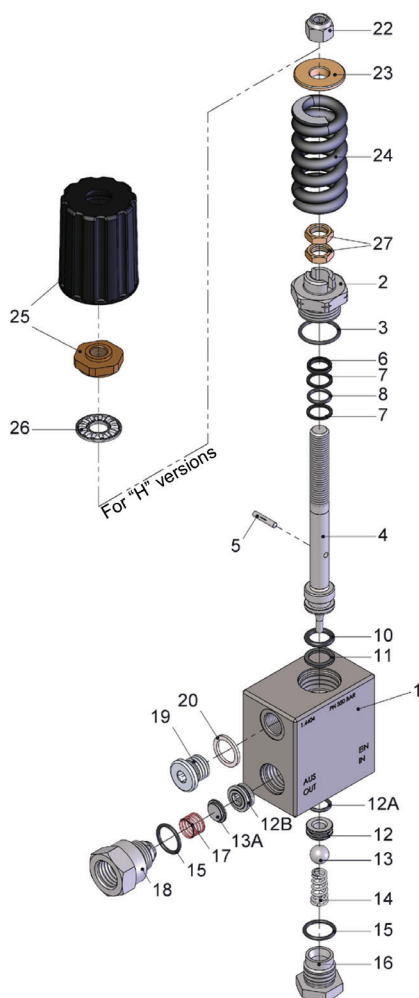


Models

22760L-50/22795-50/22765-50

Unloader
AISI 316

Model	Nominal Pressure		Operating Pressure		Min Flow Rate	Max Flow Rate	Water Temperature
	PSI	bar	PSI	bar	GPM (l/min)	GPM (l/min)	°F (°C)
22760L-50	3770	260	145-580	10-40	0.26 (1)	8.9 (30)	160 (70)
22795-50	3770	260	145-1450	10-100	0.26 (1)	8.9 (30)	160 (70)
22765-50	5655	390	145-4350	10-300	0.26 (1)	8.9 (30)	160 (70)

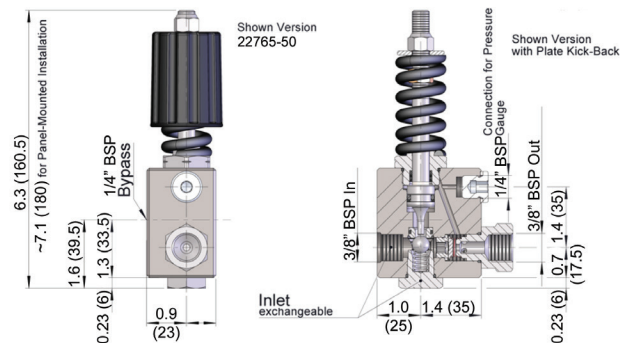


ITEM #	PART #	DESCRIPTION	QTY
1	22761-5000	Valve Body	1
2	22762-0100	Guide Plug	1
3*	07913	O-Ring	1
4	03865	Piston Rod	1
5	22764	Lock Pin	1
6*	12305	Spacer Ring	1
7*	12018	Support Ring	2
8*	11507	O-Ring	1
10*	03001	O-Ring, Piston	1
11*	08324	Support Ring, Piston	1
12	03874	Bypass Valve Seat	1
12A	12017	O-Ring	1
12B	03866	Valve Seat	1
13	03867	Bypass Valve Ball	1
13A	03868	Valve Plate	1
14	03869	Bypass Valve Spring	1
15*	12007	O-Ring	2
16	03870	Bypass Valve Plug	1
17	03871	Kickback Valve Spring	1
18	03872	Kickback Valve Spring Retainer	1
19	07423-0100	Plug	1
20	07755-0100	Steel Gasket	1
22	12317	Lock Nut	1
23	12318	Spring Tension Disc	1
24	12106	Spring, Gray (22760L)	1
24	03873	Spring, Red (22795)	1
24	12319	Spring, Black (22765)	1
25	12322	Hand Wheel	1
26	12323	Bearing	1
27	12320	Limiting Nuts	2
	*09890	Repair Kit	

Tool List and Torque Specifications

Item	Tool Needed	Torque	Lubrication
2	M22x1.5	13 ft.-lbs. (18 Nm)	
3 / 6 / 7 / 8 / 10 / 11 / 12A / 15			Silicon Grease
4 / 4A with 22	M10x1		Oil Lightly
12 / 12B	1/4" BSP	106 in.-lbs. (12 Nm)	Loctite 270
16 / 18	3/8" BSP	17.7 ft.-lbs. (24 Nm)	
19	1/4" BSP	11.8 ft.-lbs. (16 Nm)	

Dimensions - Inches (mm)



Fields of application

The fields of application of these unloader types correspond to the specifications in the assembly instructions Giant Industries Unloader.

Ambient conditions

Ambient temperature: $41^{\circ}\text{F} < T_{\text{Amb.}} < 86^{\circ}\text{F}$
Ambient temperature: $5^{\circ}\text{C} < T_{\text{Amb.}} < 30^{\circ}\text{C}$

Safety Instructions



Observe direction of flow. The bypass must under no circumstances be closed or fitted with any shut-off device.



Continuous bypass operation without releasing the water can cause the liquid to heat up which in turn could damage the unit and endanger persons.

Possible preventive measures:

- 1.) Limit the bypass duration (maximum temperature 160°F or 70°C); the duration is to be calculated by the operator and in conjunction with the operating conditions.
- 2.) Use fittings (e.g. thermal relief valve on water inlet) to avoid heat increase.

Installation / Putting into Operation

Bypass line

The bypass line must be laid in a flow favorable way. The cross section of the bypass line must at least correspond to the outlet cross section of the valve.

Outlet (G+NPT)	1/4	1/2	3/4	1
Min. $\varnothing$ (mm)	8	8	15	17

Installation and Adjustment of Pressure Adjusting Pressure

1. Valve should be tension free, i.e. loosen nut (22) or hand wheel (25) so that the piston rod can be moved manually.
2. Pressure spring (24) and nut (22) are to be tensioned by centering disc (23) with open gun, (in case of more guns, all have to be open) and while the pump is running. When the required operating pressure has been reached, no more water should run out on the bypass side.

The maximum operating pressure can be set on the hand-wheel-version by tightening and locking the stop nuts (27) to centering disc (23). Various operating pressures (up to maximum operating pressure) can be set by turning the hand wheel.

If the nozzle hole is suited to the exact flow rate and pump pressure, water should not run via the bypass when required operating pressure is reached.

GIANT

Performance Under Pressure

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If the nozzle hole is too small and the whole output won't go through the nozzle after the maximum pump pressure has been reached, on no account is the valve to be adjusted higher than the max. operating pressure of the pump. In this case, the bypass should be partially left open.

It is therefore advisable to have suitable nozzles installed.



Valves are NOT SET when delivered. They become a SAFETY COMPONENT only after adjustment on the machine by trained personnel.

Operation

For information, see assembly instructions Giant Industries Unloader

Maintenance and Servicing

For the type of thread locker used and the required tightening torques, see previous page.

Special tools required

No special tools are required for assembly.

Renewal of Piston Seals

Remove guide plug (2) out of valve body. Remove lock pin (5) and take piston rod out of plug.

Cut out worn seals (6-8).

Put spacer ring (6), O-ring (8) and support rings (7) carefully over the threads onto the piston rod. **Note order of installation.**

Replace the o-ring (10) and support rings (11) on the piston rod. Check inner surfaces of valve body and guide plug (dirt or damage wear seals out quickly).

Grease all parts with the required grease before assembly.

To Check Valves

Remove plugs (16, 18) and examine ball (13), or valve plate (13A), as well as valve seats (12 /12B) for wear.

Valve seats can be screwed out with an inner-hexagon-key size 6.

Glue in new valve bodies with the required screw locking device. Allow to dry for 60 minutes before putting into operation.

If required, supplementary assembly instructions can be requested from the manufacturer Giant Industries.

11. Malfunctions / Remedy

For information, see assembly instructions Giant Industries Unloader.

12. Materials Used

Valve Body:	AISI 316L
Piston Rod:	AISI 316L
Valve Seat:	AISI 316L
Ball:	AISI 316
Valve Plate:	AISI 316L
Seals:	Nitrile Fabric
O-Rings:	Nitrile / Hot Water Nitrile



WARNING: This product might contain a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov