

September 2014

## Types N480 and N481 Hose End Valves



### WARNING

Install, use and maintain per manufacturer's instructions and all applicable federal, state, laws and codes and NFPA No. 58 or ANSI K61.1. Periodic inspection and maintenance is essential.

### Introduction

Types N480 and N481 hose end valves are intended as quick-acting primary shutoff valves for the end of the transfer hose on bobtail delivery trucks. Standard valves can be used on propane, butane and anhydrous ammonia (NH<sub>3</sub>) service at ambient temperature. For other LP-Gases and compressed gases or other temperature conditions consult the factory.

**Type N480**—Includes a supplementary back check assembly (Type M570) and is suitable for LP-Gas service only.

**Type N481**—Without back check assembly, for use on anhydrous ammonia (NH<sub>3</sub>) service only.

### Installation

Apply suitable pipe compound to the 1 in. male pipe threads of a hose coupling (Fisher® Type M4100-16 or equivalent). Screw the hose end valve on the hose coupling using the wrenching flats on the valve's inlet connection. Use sufficient torque to make a tight seal between the valve inlet and the hose coupling.

The valve's operating lever rests near the hose connection when in the closed position.

#### Note

There must be sufficient clearance between the operating lever and the hose coupling to insure complete closure of the valve and easy grasp of the operating lever. Most hose couplings will work with the Type N480 or N481, but if there is insufficient clearance, change the hose coupling (see Figure 1).

Store the hose end valve on the delivery truck in a place protected from the elements.

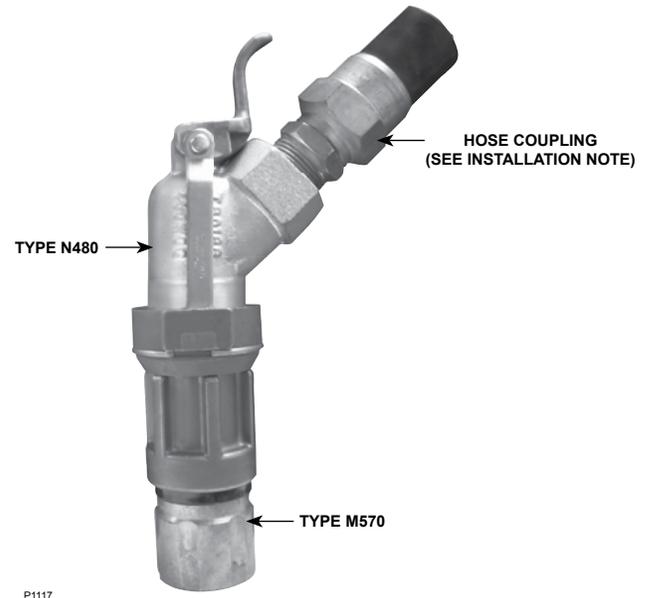


Figure 1. Type N480 Hose End Valve (with Type M570 Shown Assembled)

### Operation



### WARNING

Do not connect Type N480 or N481 to a filler valve with the operating lever in the open position. Do not press or contact the hose end valve or back check valve inner stem with the operating lever in the open position. Contact with the inner stem or connecting the hose end valve to the tank filler valve with the lever in the open position could cause escape of gas to atmosphere.

As with any hose end valve, loosen the connection on the filler valve slightly to allow pressure to bleed off before completely unscrewing the connection. If pressure continues to bleed and does not reduce, never unscrew the hose end valve because

# Types N480 and N481

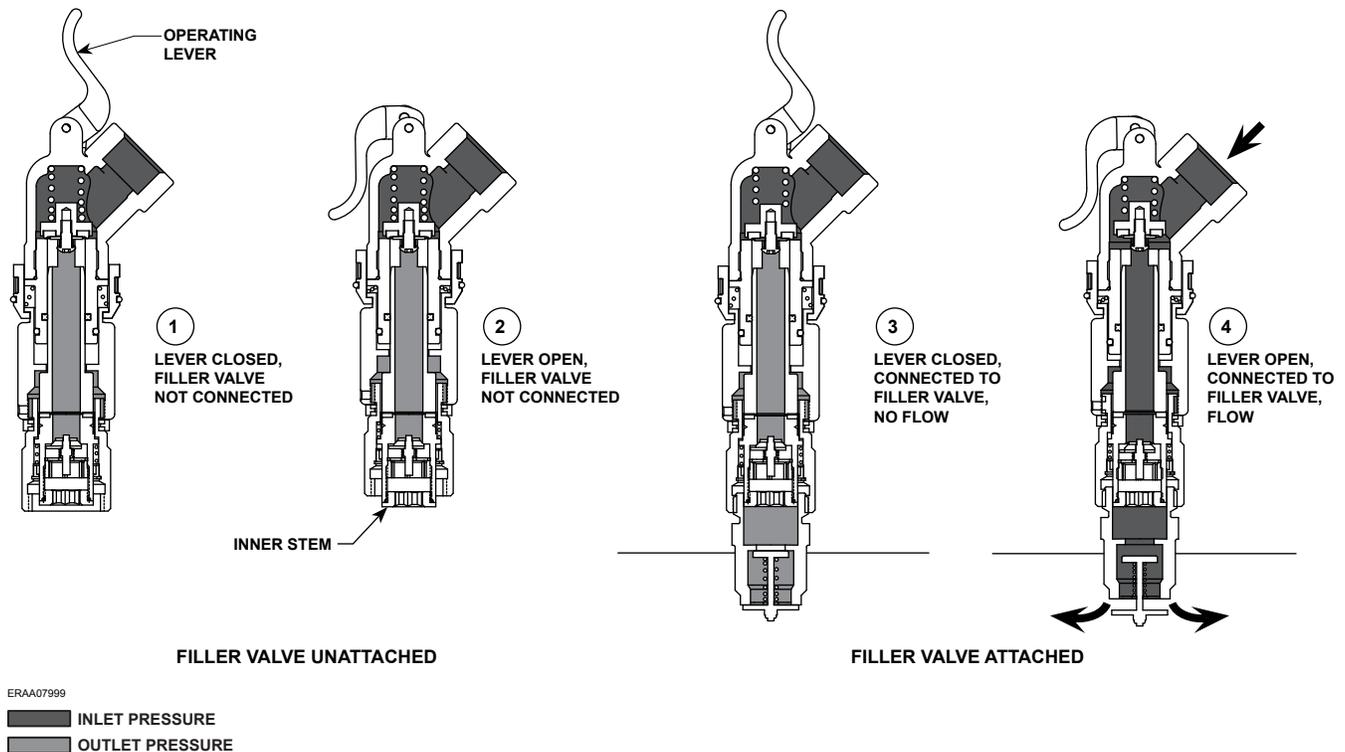


Figure 2. Type N480 Operational Schematic (same for Type N481, without Type M570 attached)

either the filler valve or the hose end valve has not shutoff. Disconnecting the hose end valve could permit the rapid escape of gas.

## CAUTION

As with many quick-acting valves, the operating lever on the Type N480 or N481 can snap closed with some force. Be careful not to pinch a hand or fingers between the operating lever and the body when closing the valve.

Before attaching either the Type N480 or N481 to a filler valve, make sure there is no dirt or other foreign material in the top of the filler valve or in the hose end valve outlet. Foreign material could be forced into the filler valve causing damage and creating a hazardous malfunction.

While attaching hose end valve (Type N480 or N481), to filler valve's male ACME fitting, be sure operating lever remains in closed position, (view 3, Figure 2). After fully connecting hose end valve to filler valve, move operating lever into open position, (view 4, Figure 2) to begin filling operation. After filling operation is complete, return hose end valve operating lever to the closed position.

Type N480 has a brass accessory back check (Type M570) that can be tightened back onto filler valves that fail to close (continually leak). Then the Type N480 main valve can be loosened from the Type M570 back check. If the pressure bleeds off (no continual leakage), between the Type N480 main valve and the Type M570, then Type M570 can be

left on the filler valve until repairs can be made, while the Type N480 main valve is disconnected. Leave the Type M570 on a filler valve only until the tank can be emptied and repair or replacement of the filler valve can be made.

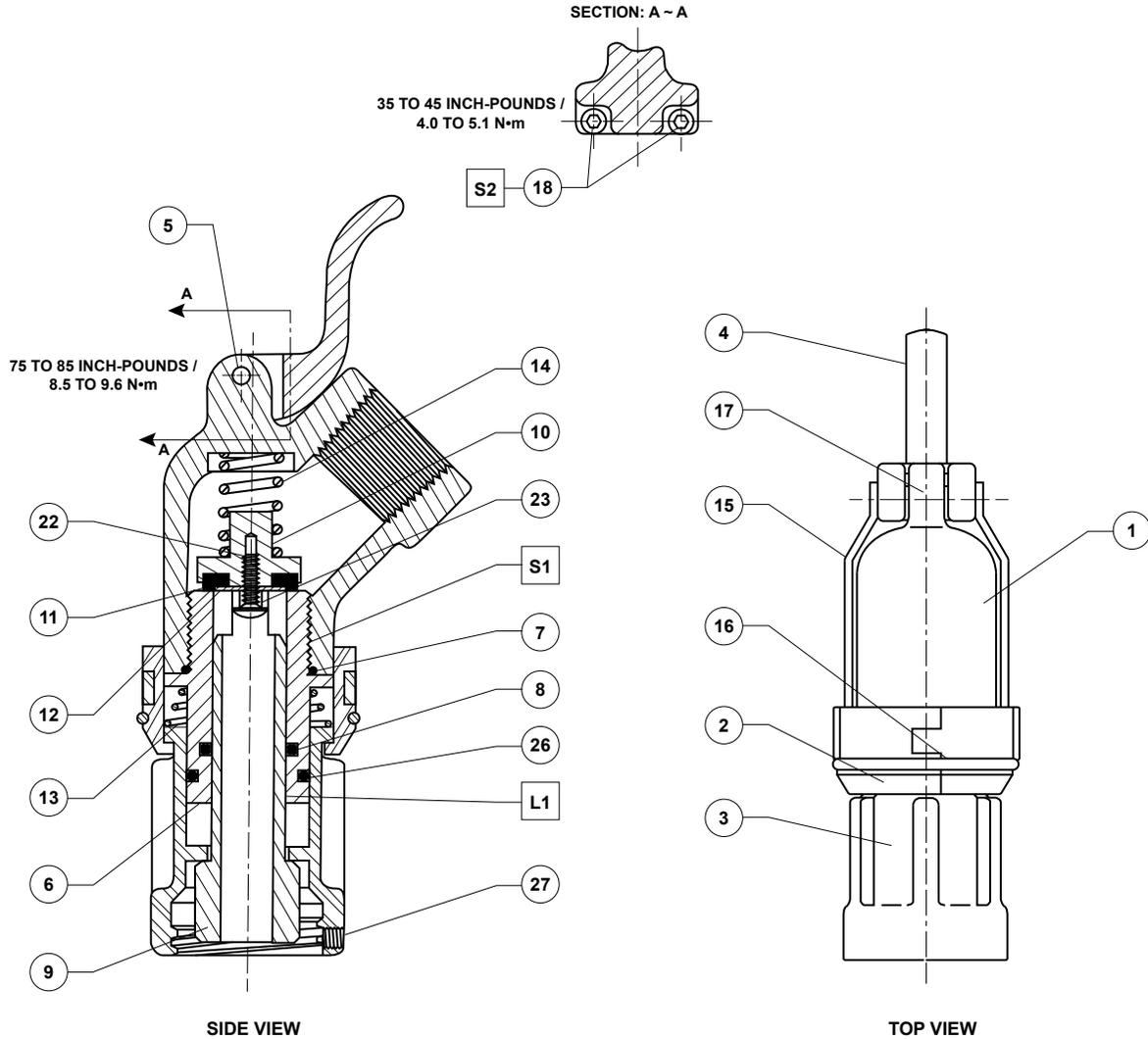
If pressure does not bleed off (continual leakage), between the Type N480 main valve and Type M570, there is still a problem. Re-tighten the Type N480 main valve to the Type M570 back check. Do not disconnect until the problem is corrected and the valves seal tightly. Try quickly opening and closing the Type N480 or tapping the sides of the valves to seat the check valves. Once filling operation is completed, return operating lever to closed position.

Should it be necessary to detach the Type M570 and leave it on a filler valve, fit a new Type M570 to the Type N480 as soon as possible. **Do not use any model of back check assembly other than the Type M570 because other models could allow accidental opening of the Type N480 when being carried.**

## Maintenance

Check the hose end valve periodically for signs of wear or mechanical damage. The operating lever and linkages should be kept free of obstructions. The surface of the Type N480 (and Type M570) or N481 inner stem, which seals against the filler valve's gasket, should be kept free from scratches, nicks and debris. Check all ACME thread connections on the Type N480 (and Type M570) or N481 for wear. If repair becomes necessary, contact your local Sales Office for information and assistance. Do not use valves that leak or fail to operate correctly; repairs should be made promptly.

# Types N480 and N481



T40366\_H

- APPLY LUBRICANT (L) OR SEALANTS (S)<sup>(1)</sup>  
 L1 = EXTREME LOW TEMPERATURE LUBRICANT  
 S1 = MEDIUM STRENGTH THREADLOCKER  
 S2 = WICKING GRADE THREADLOCKER

1. Lubricant and sealants must be selected such that they meet the temperature requirements.

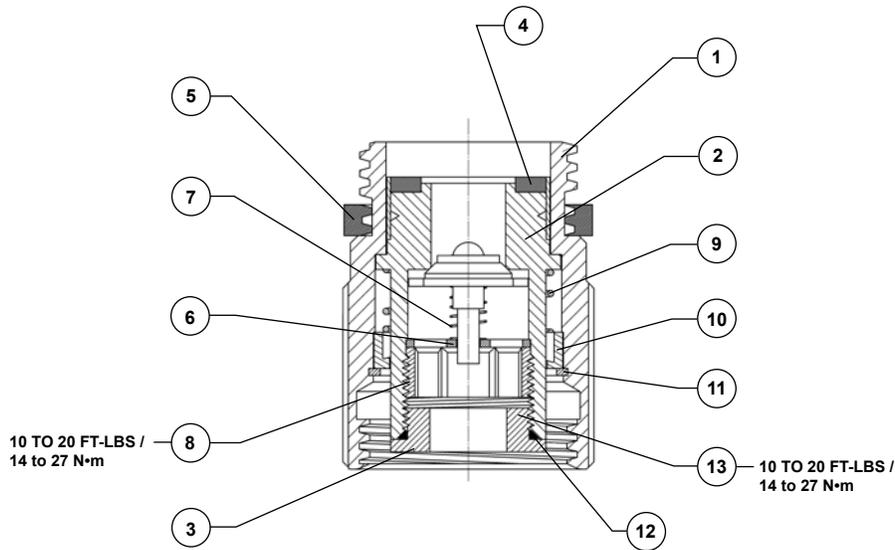
Figure 3. Types N480 (without Type M570 shown) and N481 Hose End Valve Assemblies

## Parts List

### Types N480 (without Type M570) and N481

Key	Description	Part Number	Key	Description	Part Number
1	Body, Ductile Iron	T40383T0012	11	Disk, Neoprene (CR)	T13019T0012
2	Yoke, Aluminum/Polytetrafluoroethylene (PTFE) (2 required)	T20724T0012	12	Washer, Stainless steel	T13020T0012
3	Coupler, Stainless steel	T13021T0012	13	Flat Spring, 302 Stainless steel	T13015T0012
4	Handle, Stainless steel	T20723T0012	14	Spring, 302 Stainless steel	T13289T0012
5	Dowel Pin, Steel	T13014T0012	15	Linkage, Steel/PTFE (2 required)	T13013T0012
6	Guide, Aluminum/PTFE	T20740T0012	16	Snap Ring, 302 Stainless steel	1E821637022
7	O-ring, Nitrile (NBR)	T13008T0012	17	Rivet, Stainless steel (2 required)	T13011T0012
8	X-ring	T13018T0012	18	Set Screw, Steel plated (2 required)	1A3382T0012
9	Inner Stem, Steel/PTFE	T20725T0012	22	Cap Screw, Stainless steel	T13176T0012
10	Disk Holder, Zinc-plated steel	T20741T0012	23	Spacer, 302 Stainless steel	T13177T0012
			26	O-ring, Nitrile (NBR)	T12947T0012
			27	Set Screw, Brass	T13238T0012

# Types N480 and N481



**Figure 4. Type M570 Back Check (for Type N480 only)**

## Type M570

Key	Description	Part Number	Key	Description	Part Number
1	Adaptor Body, Brass	T20826T0012	8	Spring Retainer Nut, Brass	T20754T0012
2	Back Check Body Assembly	T20827T0012	9	Spring, 302 Stainless steel	T13287T0012
3	Inner Stem/Disk Assembly, Brass/Nitrile (NBR)	T13097T0012	10	Spring Seat, Brass	T13288T0012
4	Washer, Nitrile (NBR)	T13103T0012	11	Retaining Ring, Stainless steel	T13286T0012
5	Gasket, Nylon (PA)	T13098T0012	12	O-ring, Nitrile (NBR)	T1224006562
6	Spring Retainer, 18-8 Stainless steel	T13106T0012	13	Gasket Seat, 416 Stainless steel	T20825T0012
7	Back Check Spring, 302 Stainless steel	T13100T0012			

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