

ORBIT Automated Valve Packages

TECHNOLOGY





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ORBIT Automated Valve Packages

INTRODUCTION

Cameron's ORBIT® brand can provide you with perfectly matched packages that include valves, actuators and instrumentation.

Unique Design Makes Automation Easier

Our ORBIT valves are ideal for automation by the very nature of their operating principle. Many automated valves remain open or closed for extended periods of time. This and other environmental and process conditions can cause higher breakaway torque in valves with friction between their sealing surfaces.

The mechanical camming action of an ORBIT valve retracts the core from its seat as it opens. The core is then rotated to the open position without scraping the seat. This reduces the need for the high-torque actuators found on many other valves, which scrape their seating surfaces together during opening and closing. By eliminating the opening and closing friction, ORBIT valves can provide economical, low-pressure operators and still ensure sufficient thrust to open and close the valve.

ORBIT Actuators are Specially Designed for Use Exclusively on ORBIT Valves

ORBIT actuators provide reliable, trouble-free, on/off operation, and are especially suitable for simple or extensive instrumentation.

ORBIT Valves Offers a Wide Variety of Piston and Diaphragm Actuators

ORBIT valves can be equipped with perfectly matched ORBIT linear actuators. Many capabilities can be added to the basic double acting actuator. Models are available with spring return to open or close. Manual override mechanisms also are available.

A Full Range of Instrumentation Capabilities

A variety of instrumentation capabilities can be provided to meet your system's needs. Many common systems are available as economical standard packages. Pneumatically or electrically activated systems also are available. You can order our standard systems or purchase custom systems designed to your specifications. Standard packages include combinations for spring return or double acting actuators, with signals to open or close and provisions for fail open, fail close, or fail in last position on loss of signal or pneumatic supply.

Design Assistance

Cameron can provide design assistance and recommend proven systems, or you may prefer to specify your own design and have our factory mount and test it for you. Most ORBIT valves can easily be automated in the field at a later date.

Diaphragm Actuators



Double Acting



Spring Open

Using low-pressure air supply (up to 65 psi [4.4 bars]), these simple, reliable diaphragm actuators are designed and built to match the exact needs of the smaller sizes of ORBIT valves.

With both valve and actuator from the same company, there is a single-source responsible for the complete package:

- Operations and maintenance advice
- Repair parts and field service
- Warranty



Double Acting with Snubber



Double Acting with Manual Close Mechanism



Spring Open with Manual Close Mechanism



Double Acting with Two-Way Manual Mechanism

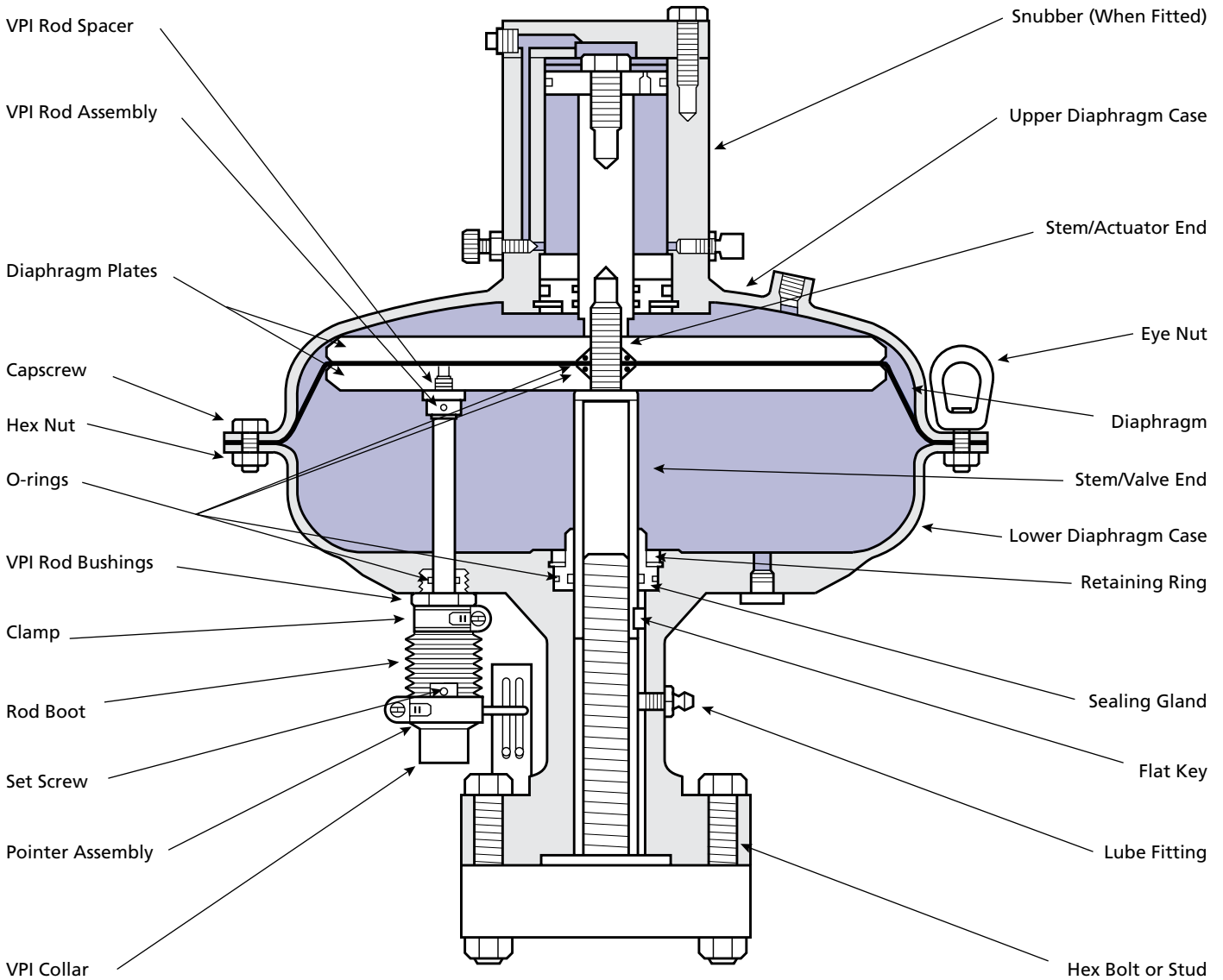


Spring Close

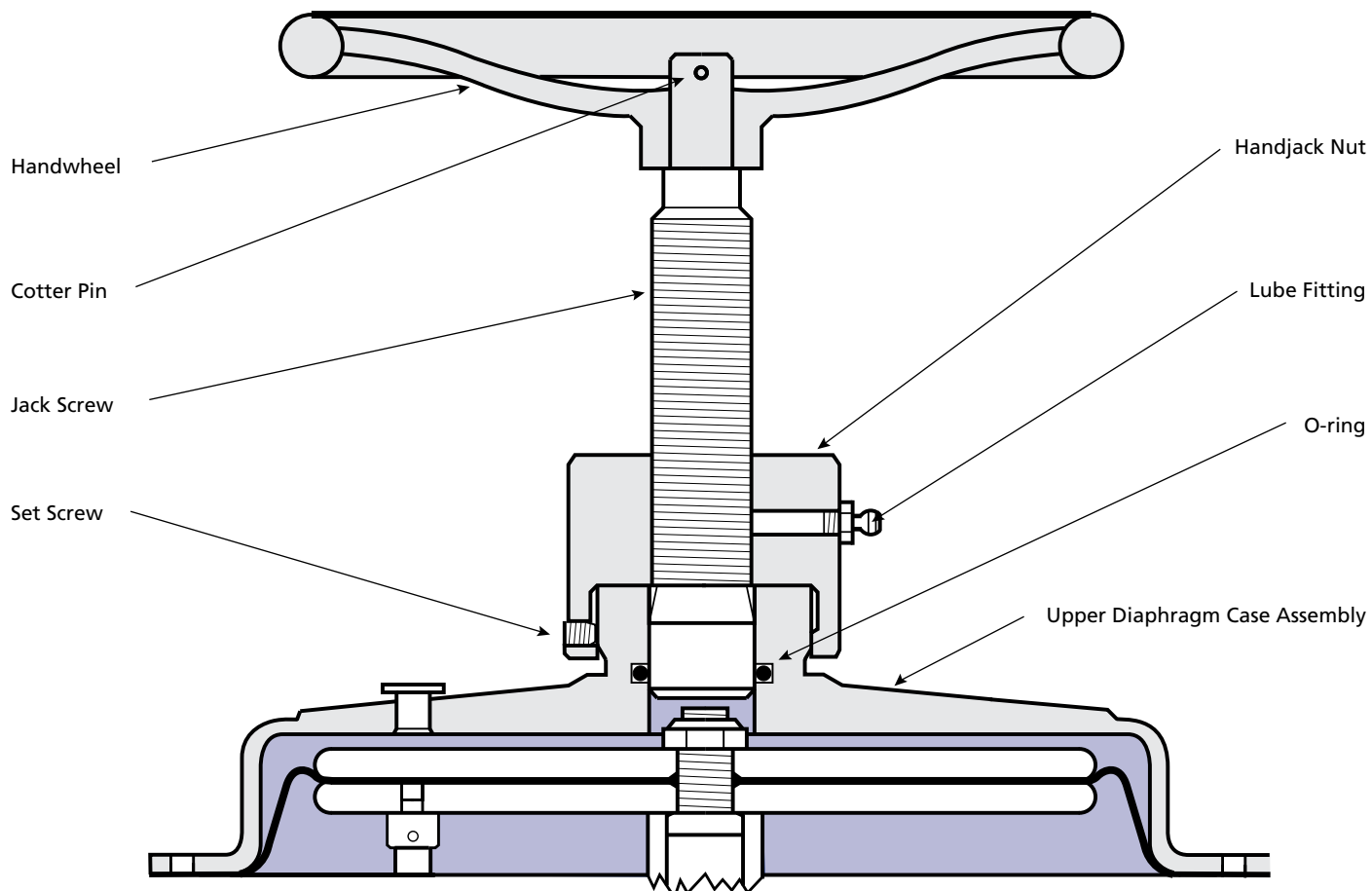


Spring Close with Two-Way Manual Mechanism

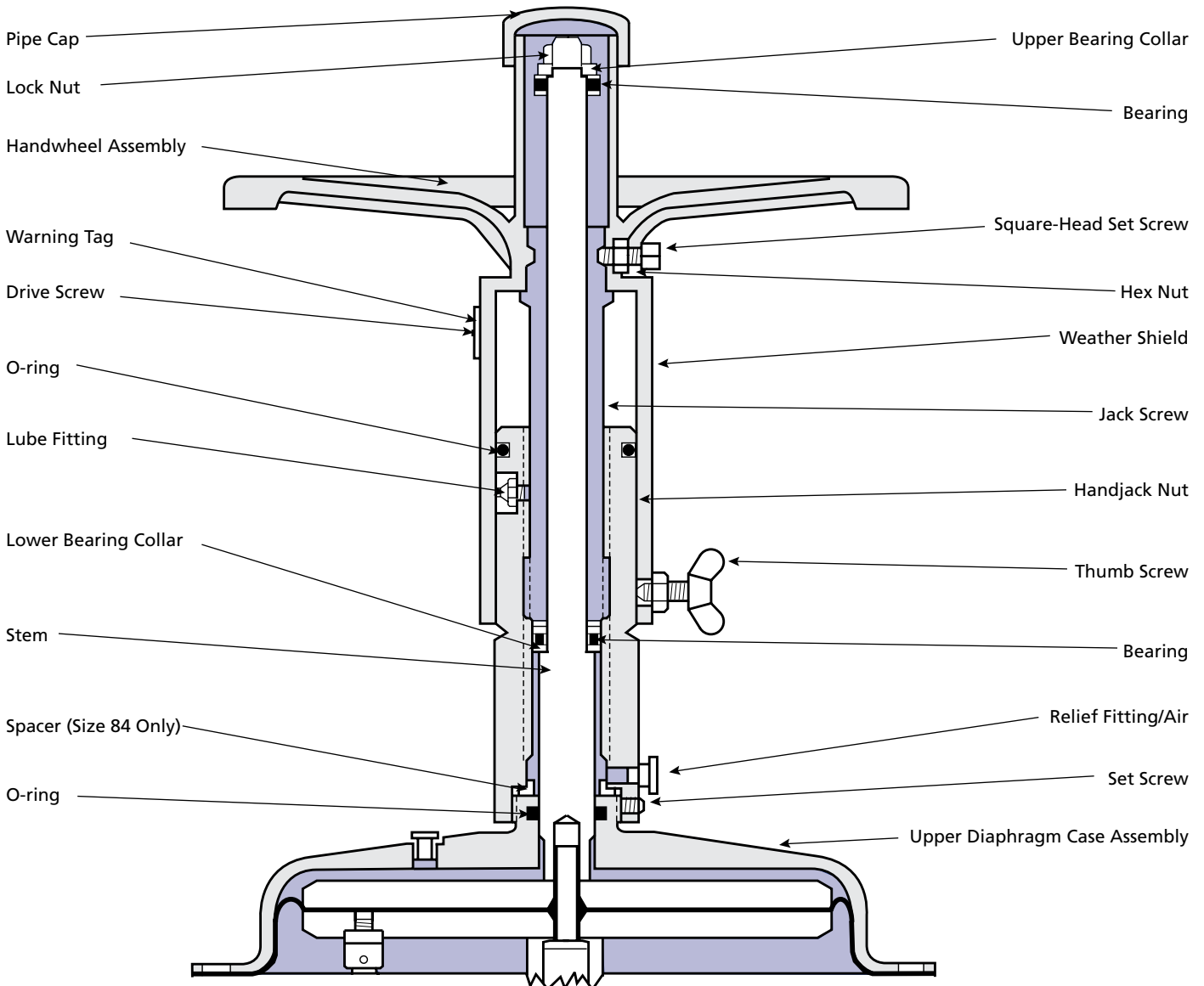
DOUBLE ACTING
SERIES 84, 164 AND 424



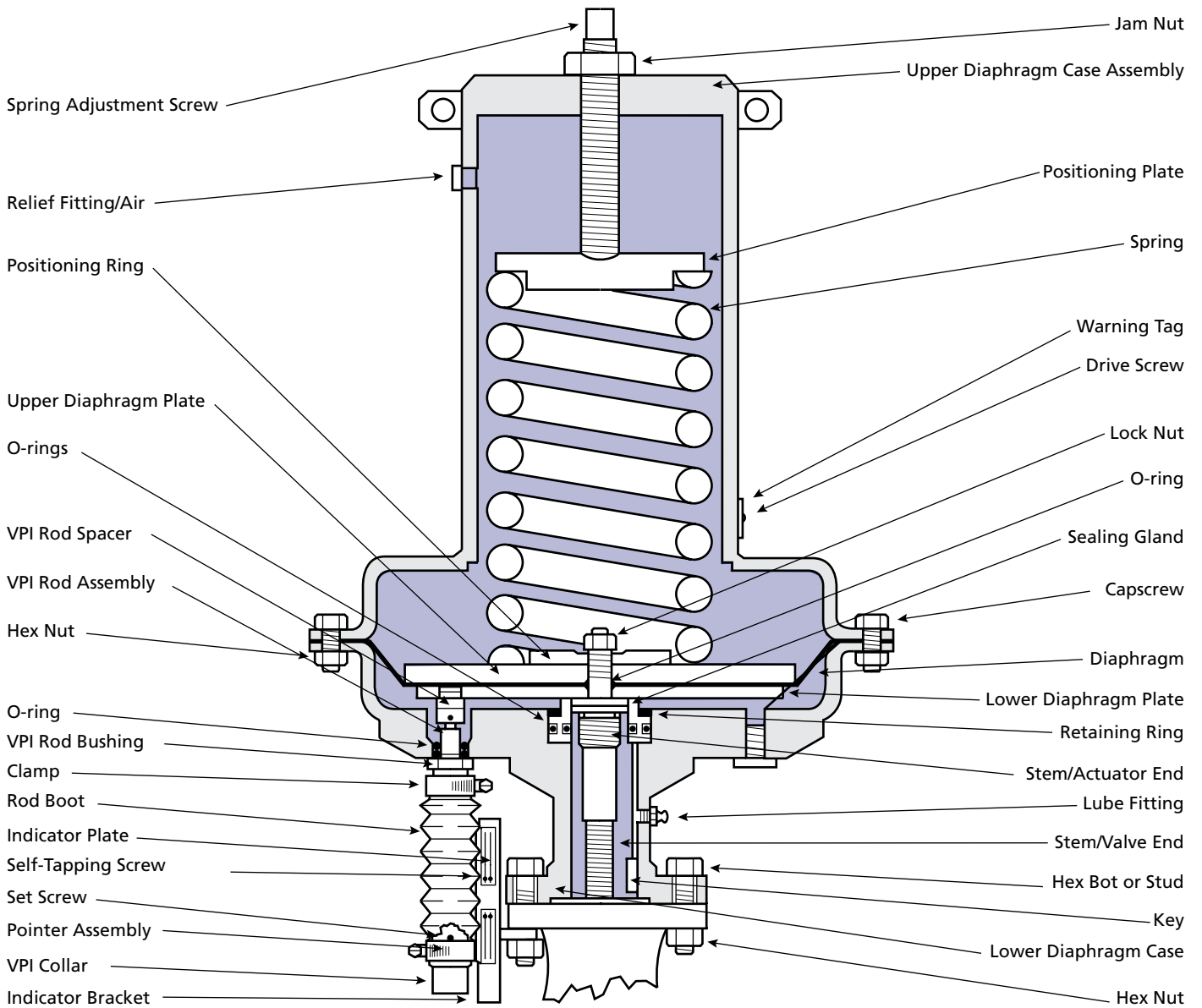
DOUBLE ACTING WITH MANUAL CLOSE MECHANISM SERIES 84 AND 164



DOUBLE ACTING WITH TWO-WAY MANUAL MECHANISM
 SERIES 84 AND 164



SPRING CLOSE SERIES 84, 164 AND 167

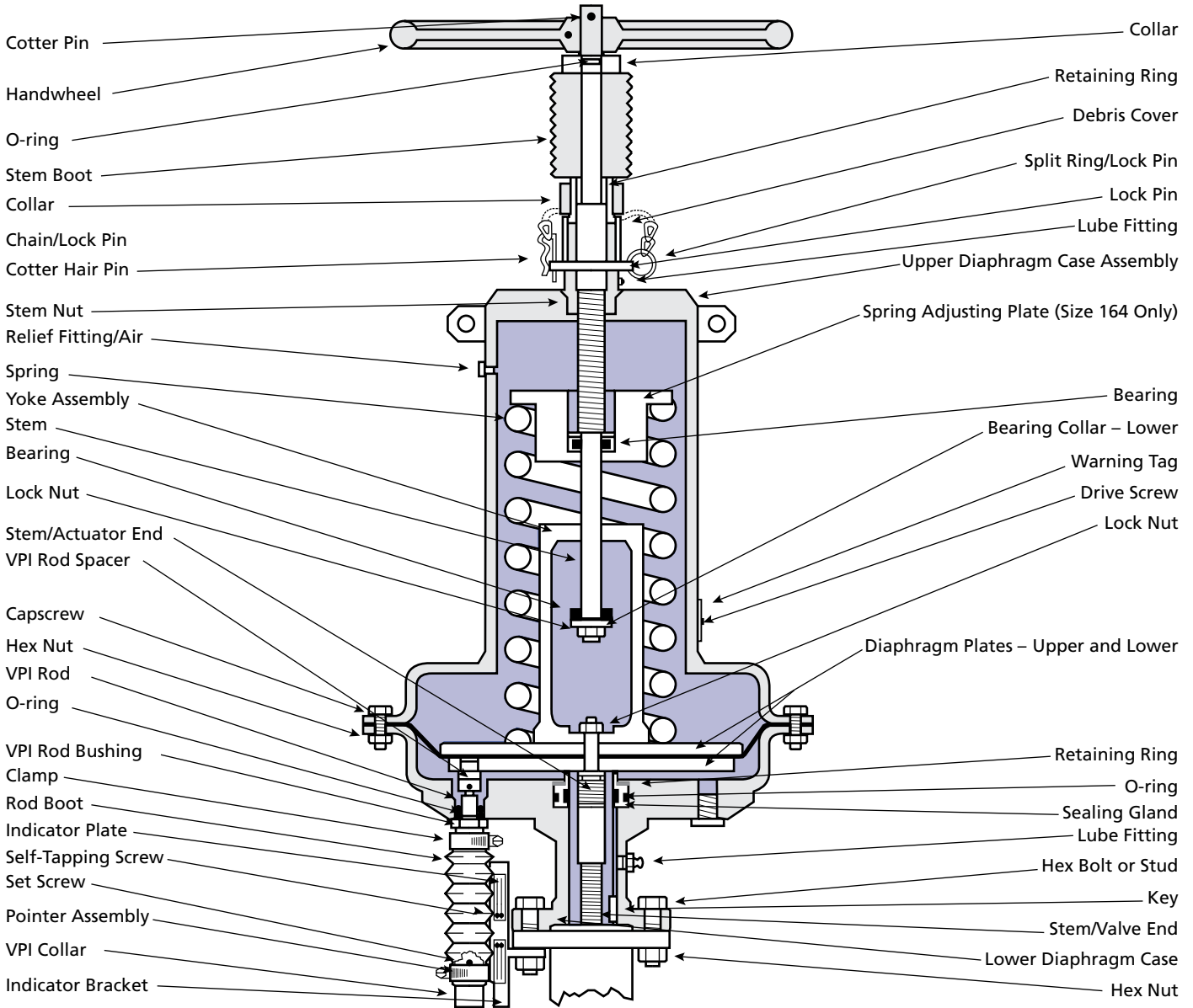
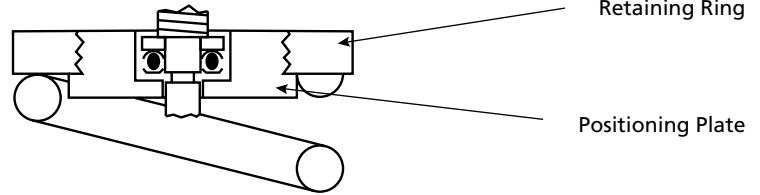


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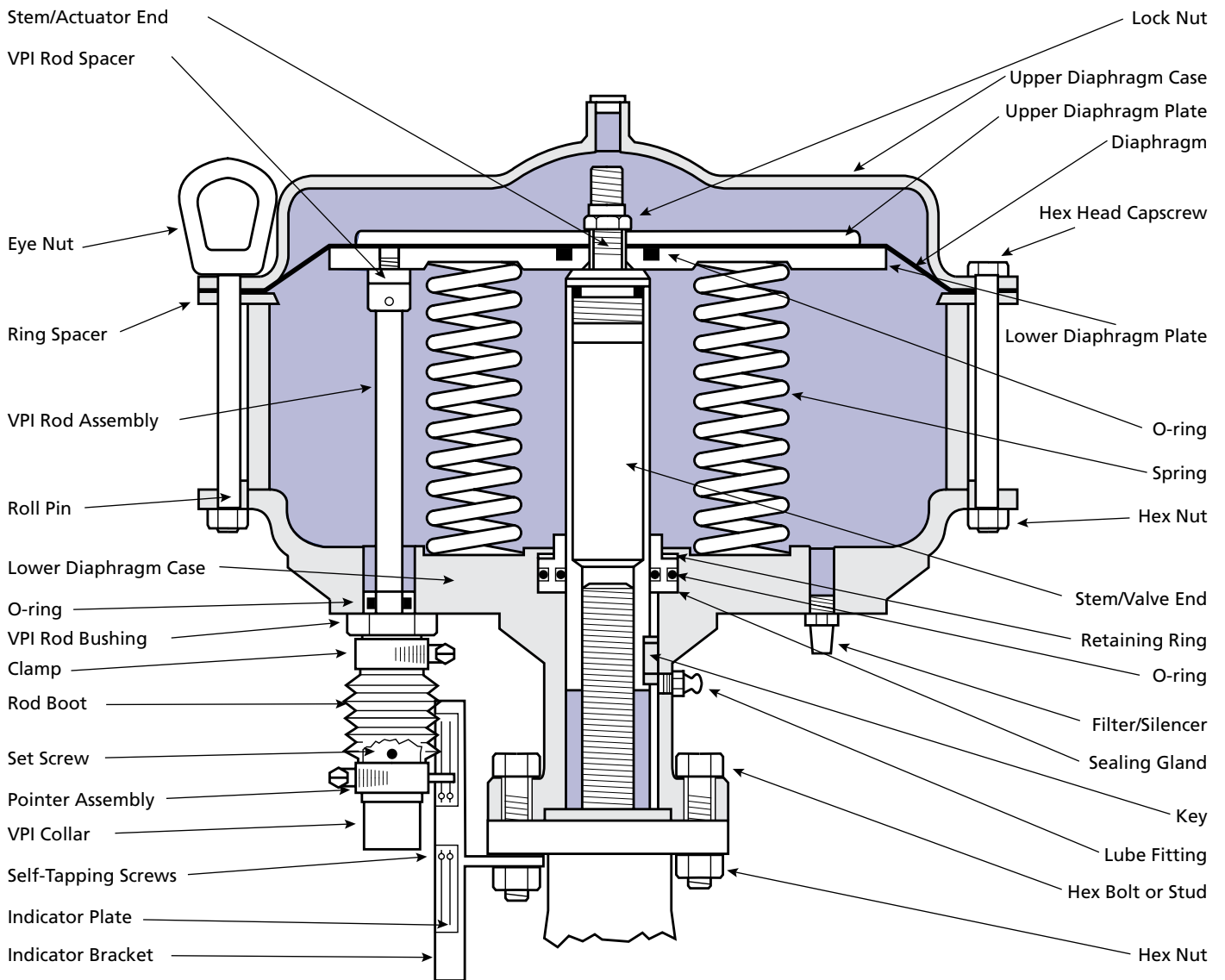
SPRING CLOSE WITH TWO-WAY MANUAL MECHANISM
 SERIES 84, 164 AND 167



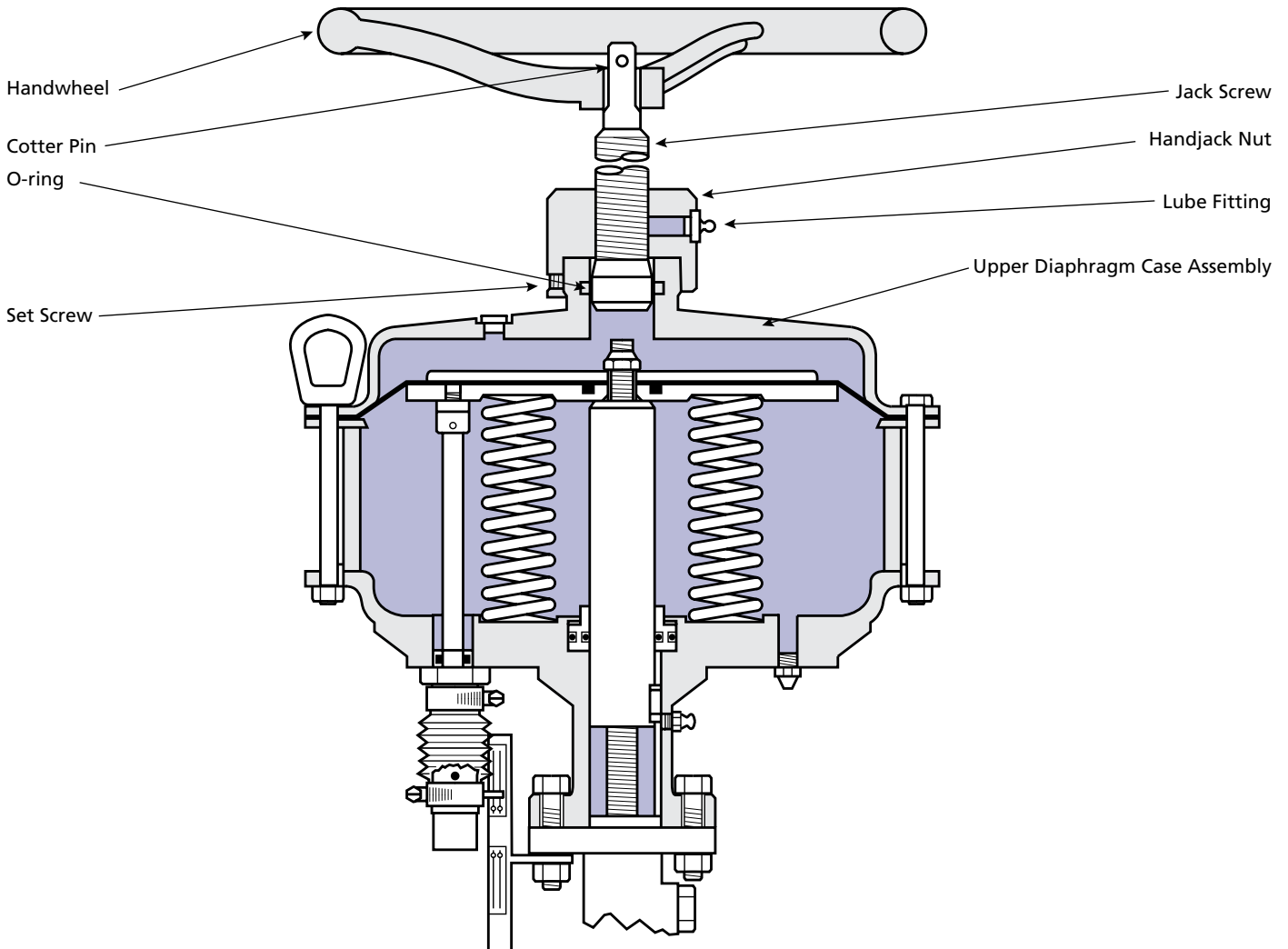
(For 84 Only)



SPRING OPEN
SERIES 85 AND 165



SPRING OPEN WITH MANUAL CLOSE MECHANISM
SERIES 85 AND 165



Piston Actuators



Cameron's ORBIT piston actuators are designed for larger sized valves and are available with many types of optional equipment.

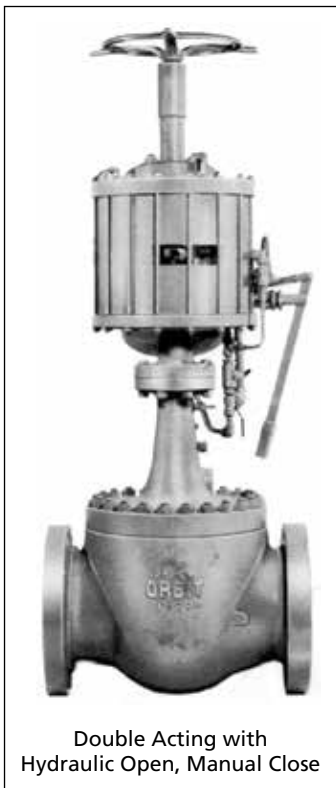
These actuators provide the required opening or closing force using air, gas or hydraulic pressure. On/off operation is efficient and consumes very little power.

The actuators use two cylinders, one on top of the other, with double acting pistons joined to a common central shaft or stem to generate sufficient linear thrust from a compact unit.

A gas-over-oil tank provides smooth operation, lubrication and ensures many years of trouble-free operation. The piston and rod seals operate against polished surfaces, coated with molybdenum disulfide, a dry film lubricant that also reduces wear.

A variety of accessories can be mounted at various locations on the actuator.

NOTE: Some mounting applications may require bracing to support the cylinder actuator. Consult Cameron for mounting positions other than vertical.

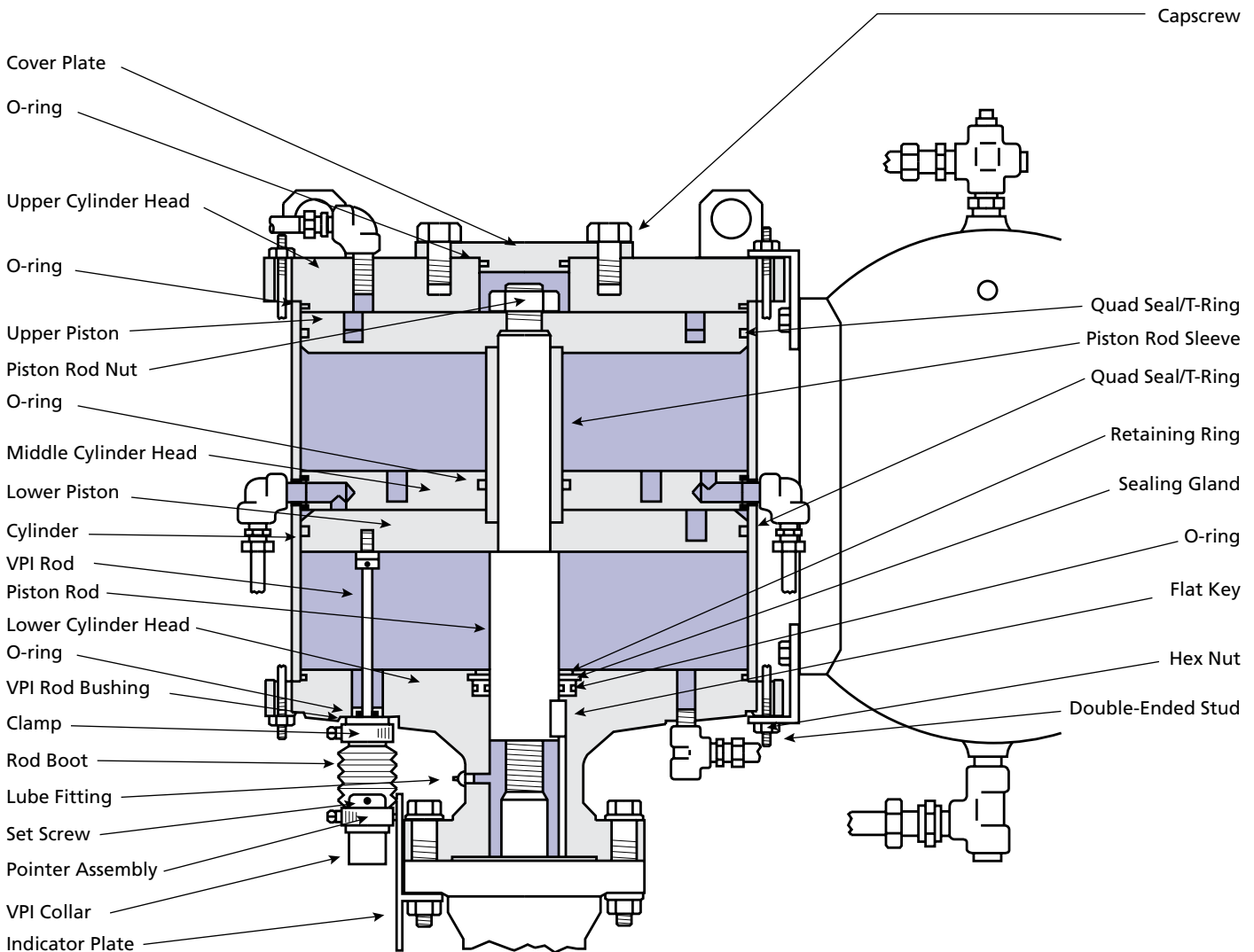
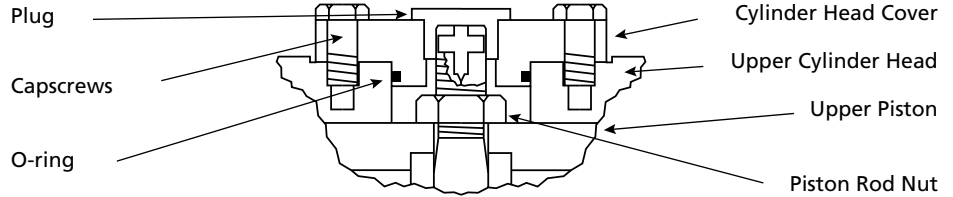


DOUBLE ACTING
SERIES LS-124D, LS-185D, LS-205D, LS-207D, LS-208D, LS-267D, LS-269D
AND LS-2611T

NOTE: "T" suffix indicates triple-stack cylinders.



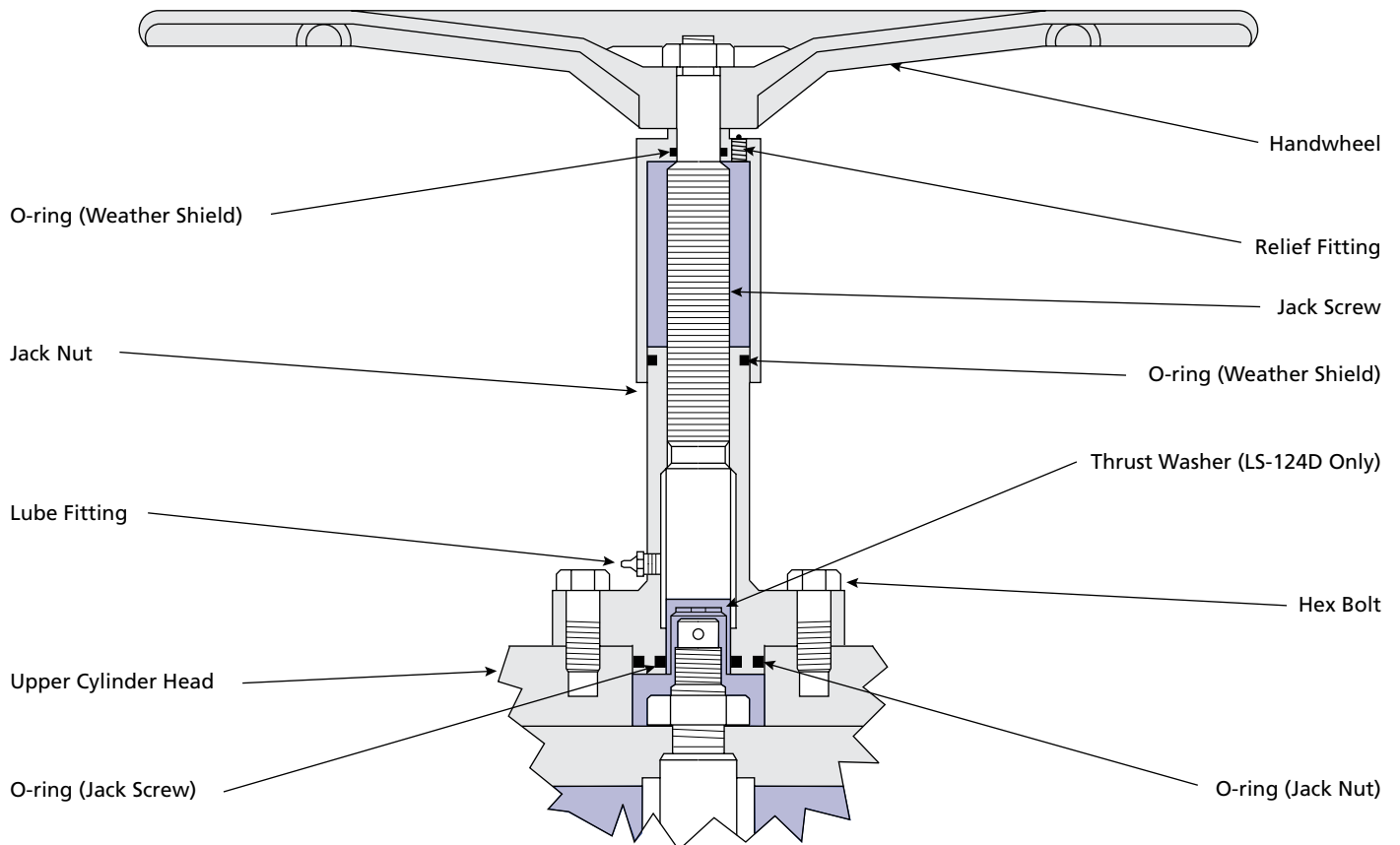
(For LS-124D Only)



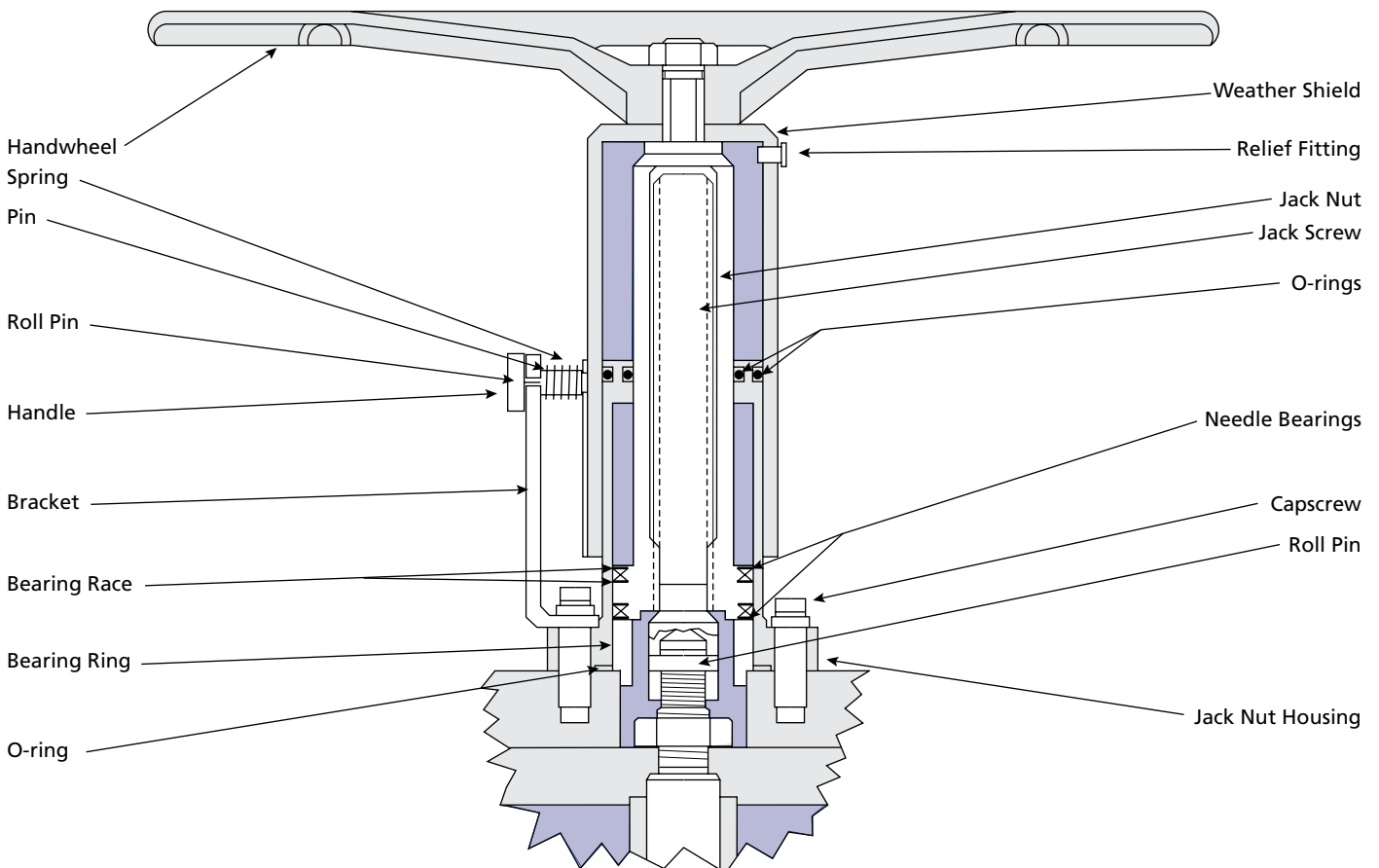
NOTE: Piston stack can be double as illustrated, or triple.

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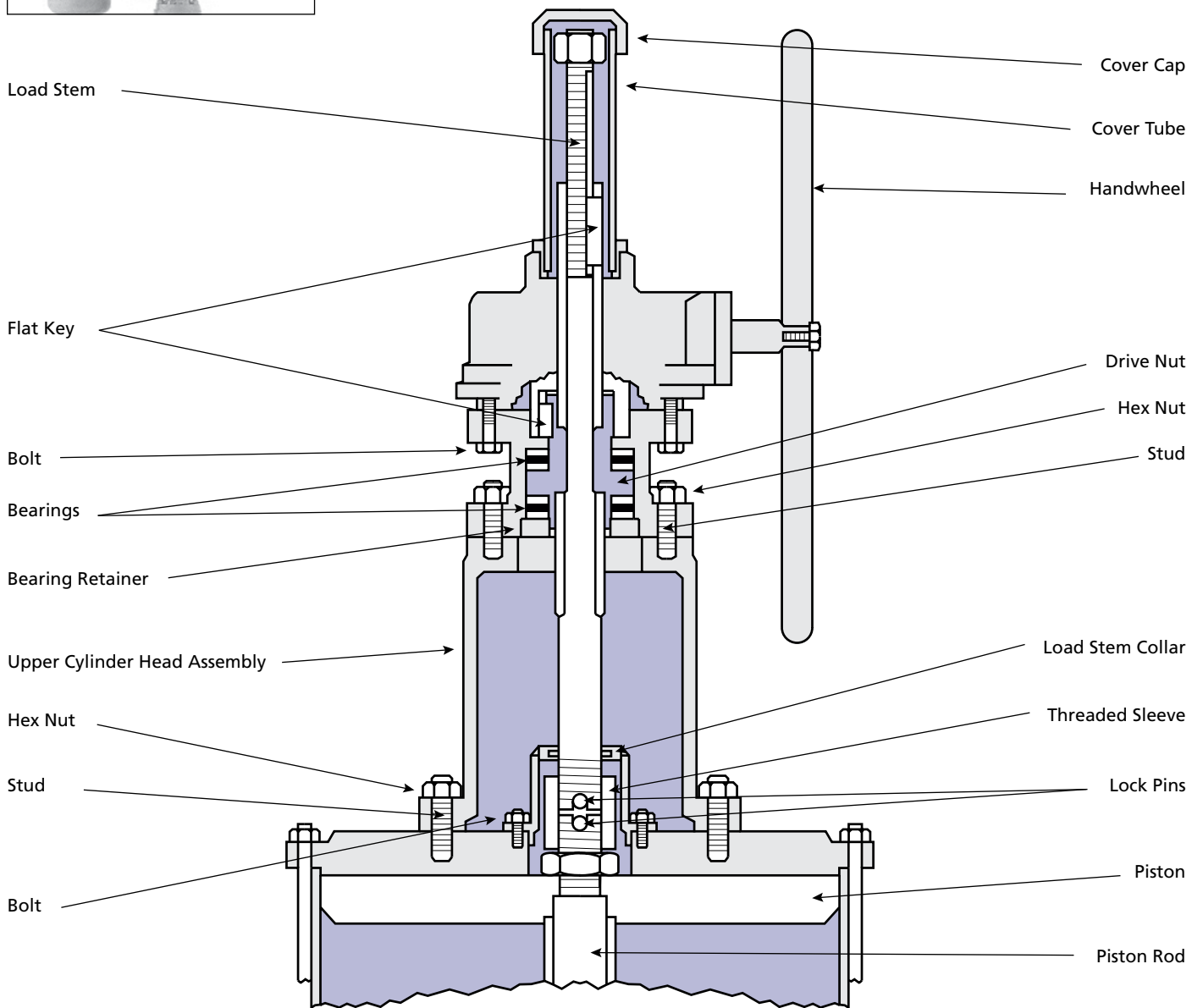
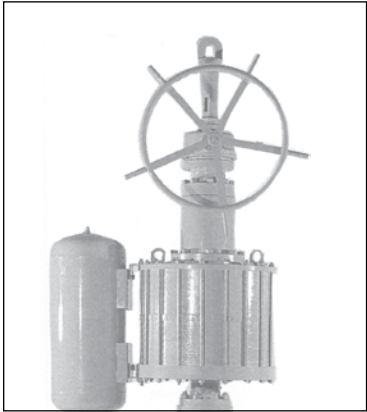
DOUBLE ACTING WITH MANUAL CLOSE MECHANISM
 SERIES LS-124D, LS-185D, LS-205D AND LS-207D



DOUBLE ACTING WITH TWO-WAY MANUAL MECHANISM
 SERIES LS-124D



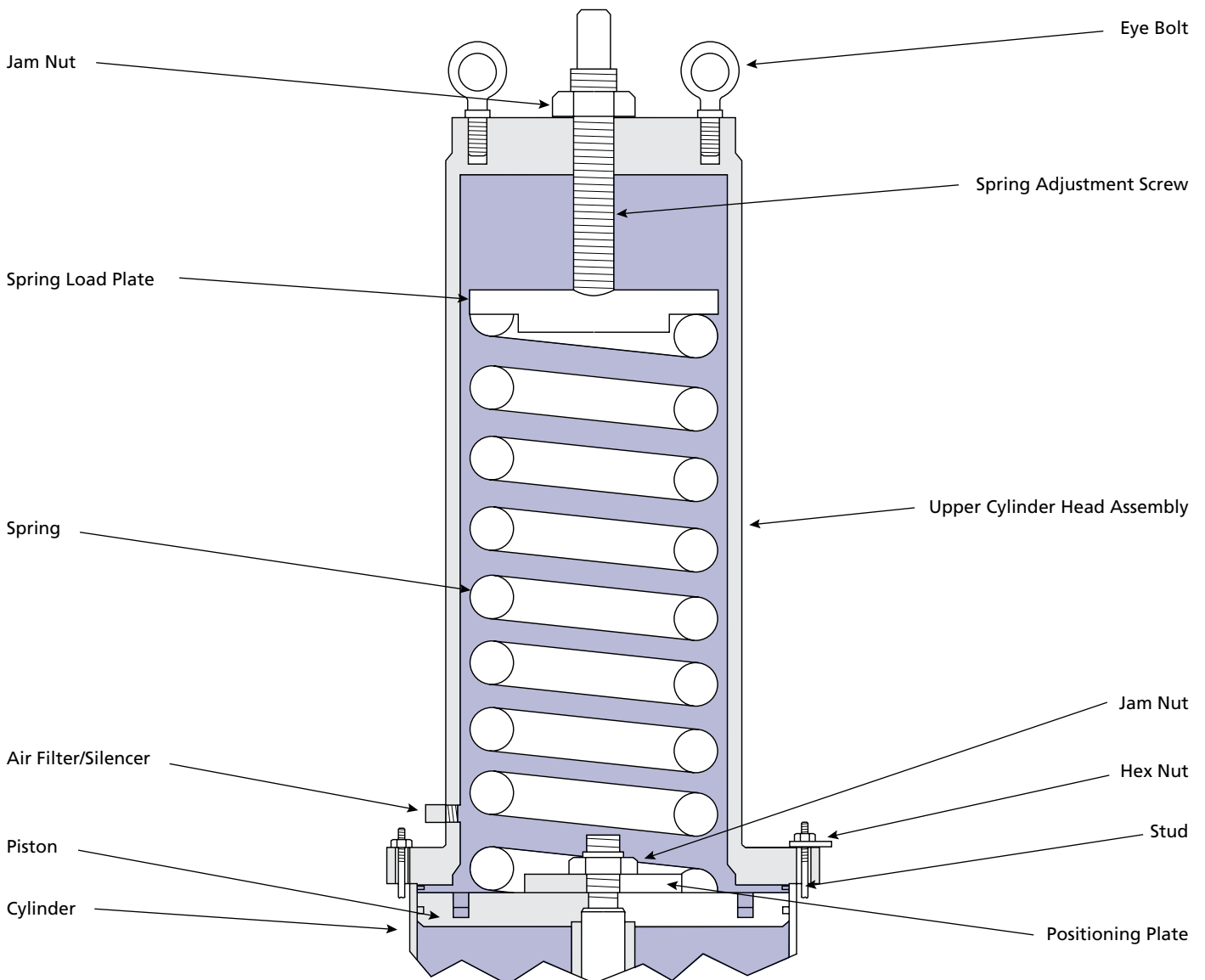
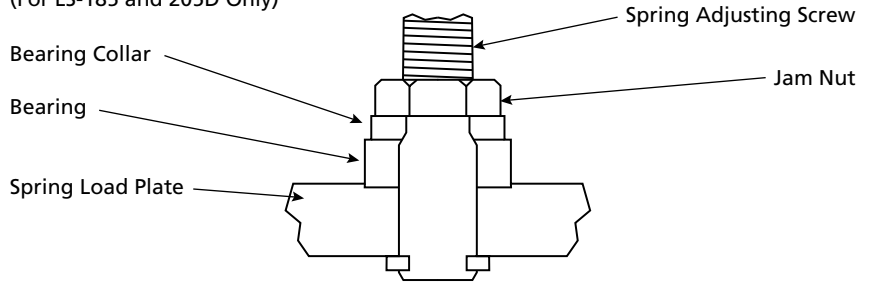
DOUBLE ACTING WITH TWO-WAY MANUAL MECHANISM
 SERIES LS-267D AND LS-269D



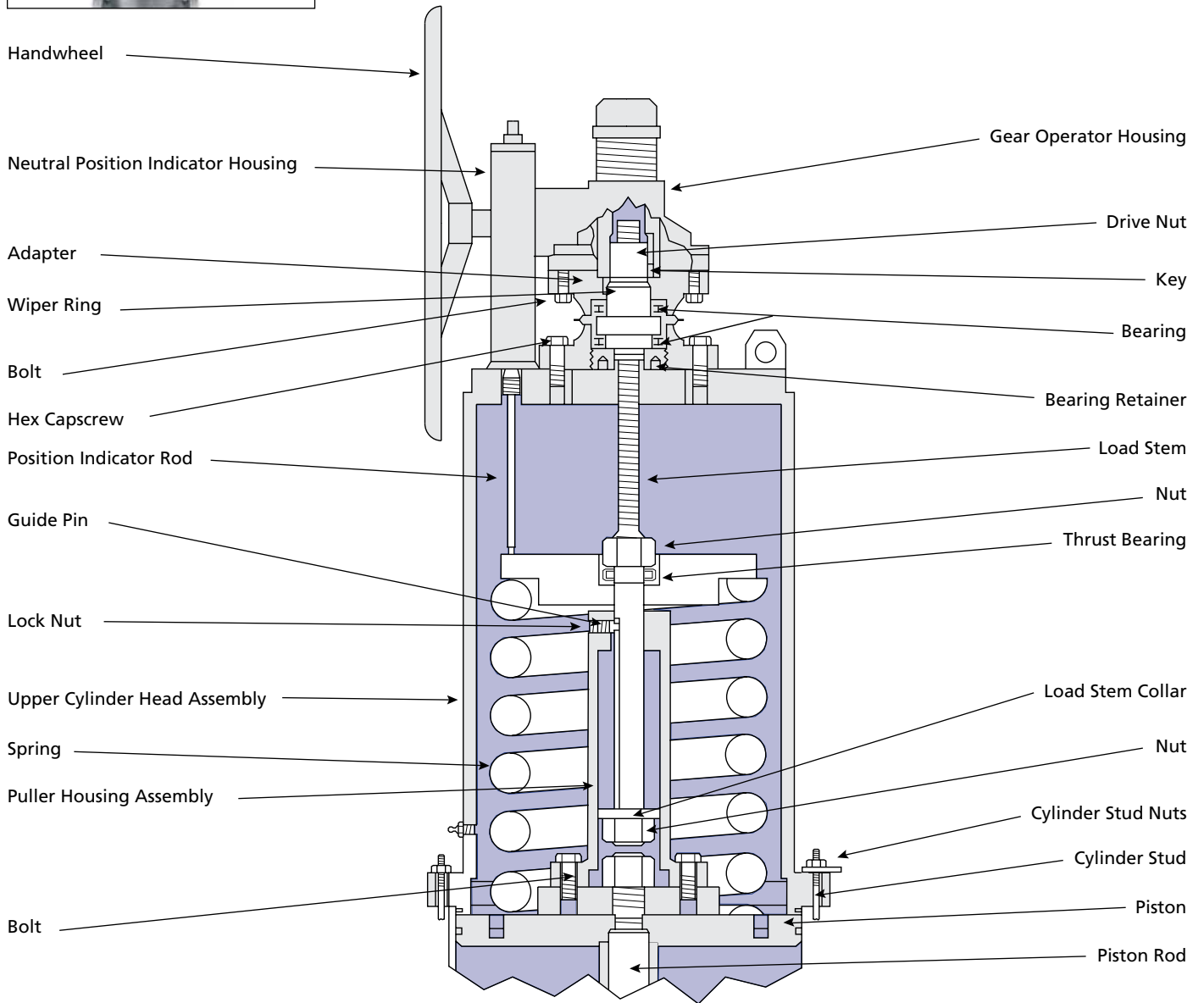
SPRING CLOSE
SERIES LS-124D, LS-185D, LS-205D, LS-207D AND LS-267D



(For LS-185 and 205D Only)



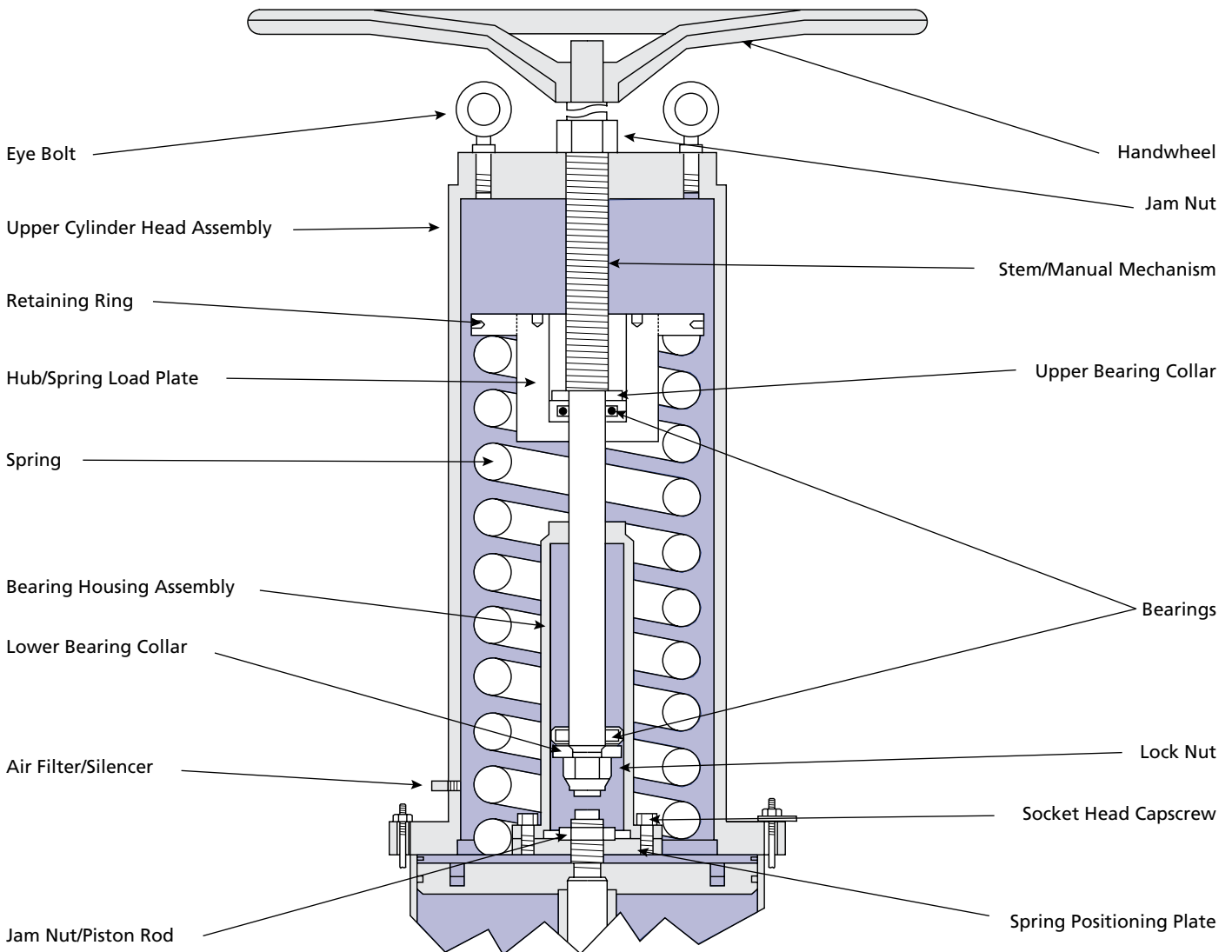
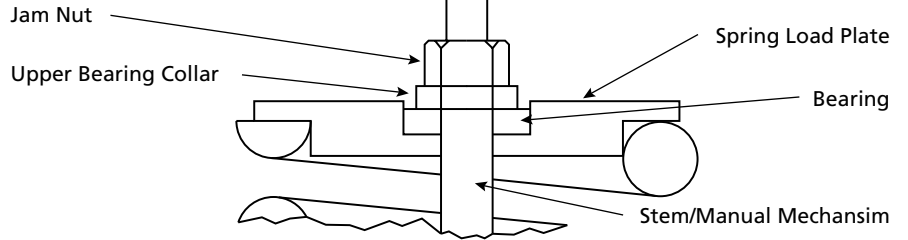
SPRING CLOSE WITH TWO-WAY MANUAL MECHANISM
 SERIES LS-205D, LS-207D AND LS-267D



SPRING CLOSE WITH TWO-WAY MANUAL MECHANISM SERIES LS-124D AND LS-185D



(For LS-185D Only)



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CAMSERV™ Aftermarket Services for Valves and Actuation

WE BUILD IT. WE BACK IT.



Global Network and Local Support

Cameron is well-positioned to deliver total aftermarket support, quickly and efficiently, with unmatched OEM expertise. Our highly skilled engineers and technicians are available around the clock, seven days a week, to respond to customer queries, troubleshoot problems and offer reliable solutions.

Easily Accessible Parts and Spare Valves

- OEM spare valves, actuators and parts (including non-Cameron brands)
- Handling, storage, packaging and delivery
- Dedicated stocking program



Comprehensive Aftermarket Services Portfolio

- Parts and spare valves
- Repair
- Field services
- Preventative maintenance
- Equipment testing and diagnostics
- Remanufacturing
- Asset preservation
- Customer property management
- Training and recertification services
- Warranty



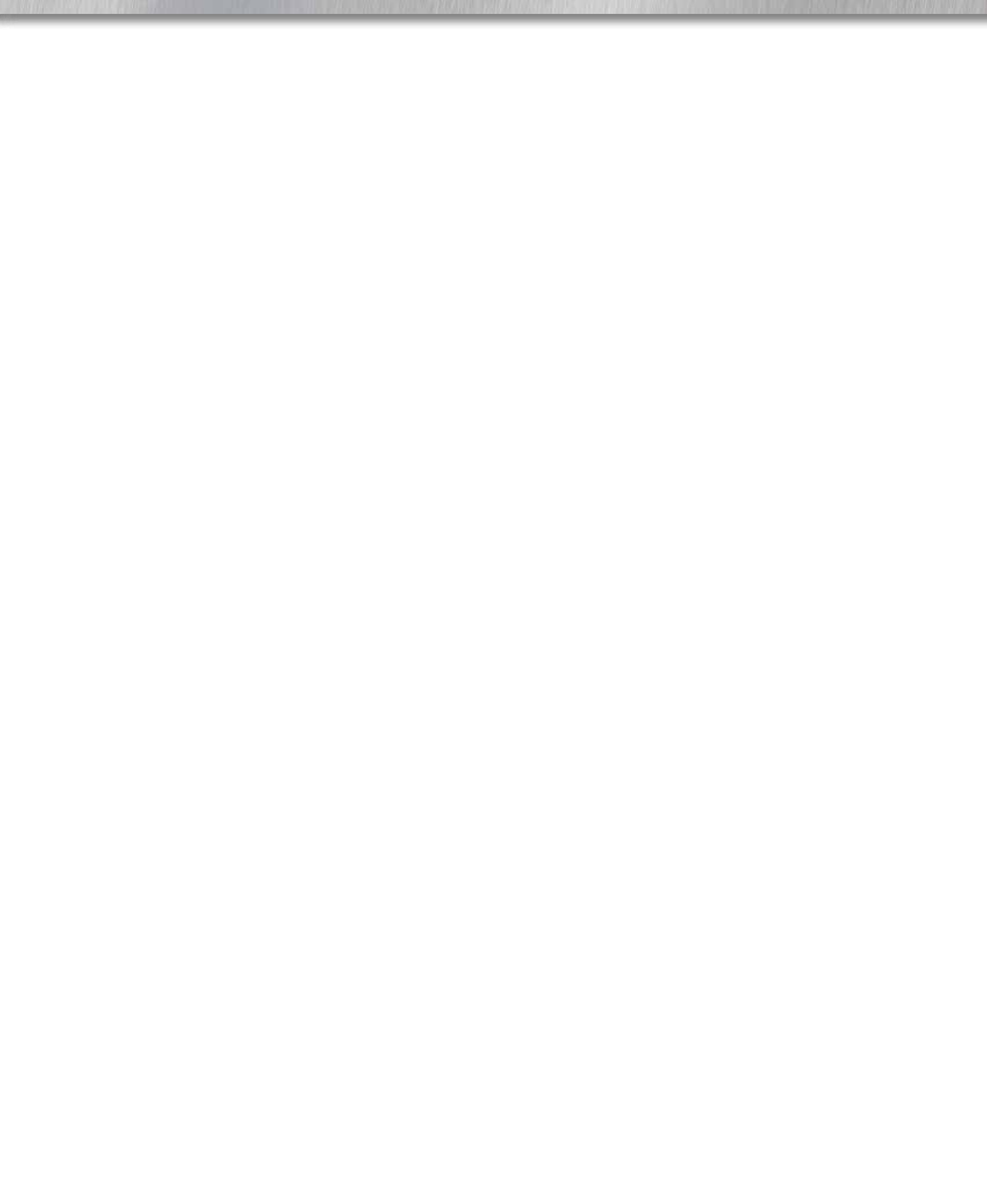
Customized Total Valve Care™ (TVC) Programs

Customized asset management plans that optimize uptime, availability and dedicated services.

- Engineering consultancy
- Site management
- Flange management
- Startup and commissioning
- Spare parts and asset management
- Operational support



Notes



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HSE Policy Statement

At Cameron, we are committed ethically, financially and personally to a working environment where no one gets hurt and nothing gets harmed.