

Sandwich Declutch System

Definition

The sandwich declutchable manual override offers safe and easy valve positioning when manually overriding the pneumatic high pressure actuators, Series 81 double acting or Series 82 spring return. Declutchable actuators are carefully selected for applications by calculating the valve and actuator torque rating. The torque rating is then matched up with the output torque rating of the sandwich declutch operator. All sandwich declutch operators are designed to exceed loads far in excess of their rated torques. All units are totally enclosed, weather-proof and permanently lubricated.

The sandwich declutch operators come standard with a handwheel for easy operation. As the output torque of the sandwich declutch operators increase so does the handwheel size to ensure low rim pull, less than 90 lbs., on all applications regardless of the valve size.



Construction

Part	Material
Housing	Cast Iron
Worm segment	Heat treated carbon steel
Worm wheels	Cast ductile iron
Input shafts	Carbon steel
Shaft and worm seals	BUNA-N
Declutch bar	Stainless Steel



Operation

Fig. 1

Upon loss of power in an emergency situation make sure that accessory controls like solenoids, positioners and speed controls do not allow air pressure to the actuator or do not have air locked in the actuator! **Actuator supply pressure must be cut off and able to bleed out before the Sandwich Declutch System will operate! If the actuator is Spring return type allow it to fail to its predesignated position before manual operation!**

Fig. 2

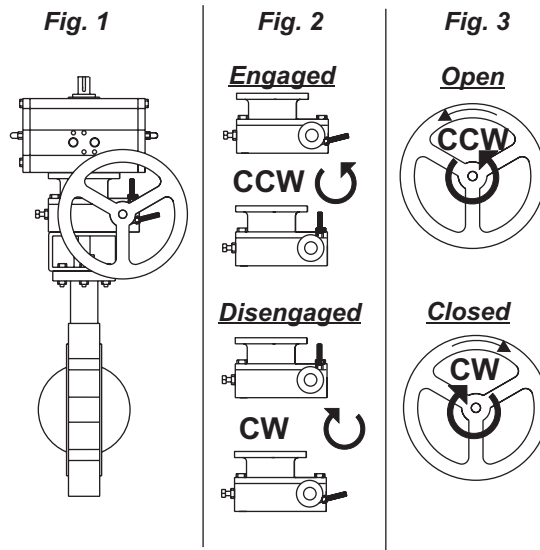
Disengage the declutch bar and move it counter clockwise to the up position with the spring handle locked against the top of the gear, the declutch is now engaged.

Fig. 3

To Open or Close the valve turn the handwheel to the desired position: Open - Counter clock wise, Closed - Clock wise.

NOTE:

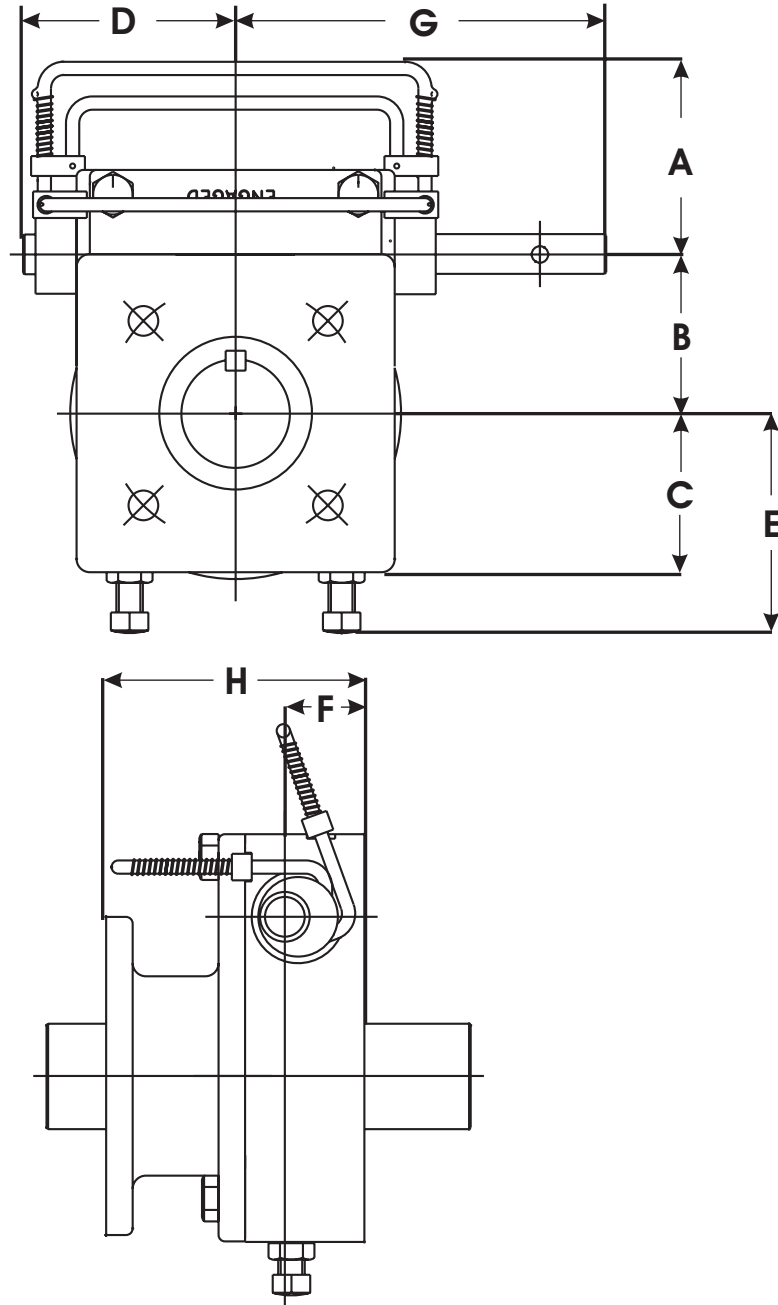
After the emergency operation the actuator must be returned to its original position before the emergency operation. The manual operator will not reset itself. After resetting the actuator rotate the spring handle clockwise with the spring handle down and locked in the storage position. The handwheel should rotate freely when the SD operator is disengaged. The unit is now ready for automatic operation.



Caution

! Actuator supply pressure must be cut off before the Sandwich Declutch System will operate!

Dimensions



Model	A	B	C	D	E	F	G	H	Hand wheel	Rim Pull
DT3SD	2.87"	1.75"	1.75"	2.54"	2.25"	1.12"	5.22"	4.12"	10"	33 Lbs.
DT7SD	3.28"	2.63"	3.51"	3.51"	3.79"	1.63"	6.90"	4.63"	10"	78 Lbs.
DT12SD	3.64"	3.00"	4.02"	4.02"	4.14"	1.50"	6.96"	4.87"	18"	45 Lbs.
DT21SD	3.56"	3.62"	4.08"	4.08"	4.60"	1.64"	7.00"	5.36"	24"	35 Lbs.
DT36SD	4.47"	4.63"	4.76"	4.76"	6.09"	1.94"	9.00"	7.16"	36"	68 Lbs.
DT90SD	5.87"	6.25"	5.88"	5.88"	6.34"	6.29"	15.88"	9.32"	24"	90 Lbs.

Above dimensions need to be added to valve assemblies to get the overall dimensions