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DESCO Air Hat Double Exhaust Assembly Instructions

The DESCO Air Hat Double Exhaust Valve consists of two flapper chambers. The upper flapper resistance is adjustable, while the lower flapper resistance is fixed. Tension on the upper flapper is controlled by a knurled cap on the top of the exhaust valve which alters spring tension on the plunger.

Assembly:

Top section;

Screw the cap onto the exhaust cover completely. Check for roughness or catching in the threads when screwing the cap on. Unscrew the cap from the top section and clean the threads of any plating which may have flaked off.

Thread the cap onto the top section $\frac{1}{4}$ turn. Place the spring over the plunger and insert the plunger into the top section and cap assembly so the threaded stud protrudes from the cap. Install the hex nut on the threaded stud to hand tight. Back the cap slightly to wedge the nut in position.

Remove the excess threaded stud above the hex nut. Using a center punch put three dimples in the end of the stud to prevent the hex nut from coming off. Make sure the relief hole in the center of the stud is open. The relief hole prevents a vacuum from forming between the flapper and plunger.

Screw the cap down fully to make sure the spring will not catch between the top section and the cap. If the cap does not screw down fully the spring is shifted to one side and is pinching between the cap and top section. Run the cap up and lightly tap the side of the top section on a table or bench top to reposition the spring.

Center Section;

Screw the 10-32 Pan Head screw into the center section about $\frac{1}{3}$ of the way in.

Place the flapper disk onto the screw head. Turn the flapper disk down until it sits evenly on the center section. Turn it flapper disk in an additional $\frac{1}{8}$ turn to put tension on it.

Turn the assembly over and install the star lock washer and flapper guard. Tighten the flapper guard using needle nose pliers in the relief holes.

The top and center sections can now be assembled using two 6-32 Stainless Steel Pan Head screws.

DESCO Air Hat Double Exhaust Assembly Instructions continued.

Base Section;

Screw the 10-32 Pan Head screw into the center section about 1/3 of the way in. If you hold the locking nut on the underside of the base and feed the screw into it as you install it the assembly is easier.

Turn the flapper disk down until it sits evenly on the center section. Turn it flapper disk in an additional 1/8 turn to put tension on it. Tighten the lock nut using a nut driver being careful not to over tighten and damage the exhaust spider.

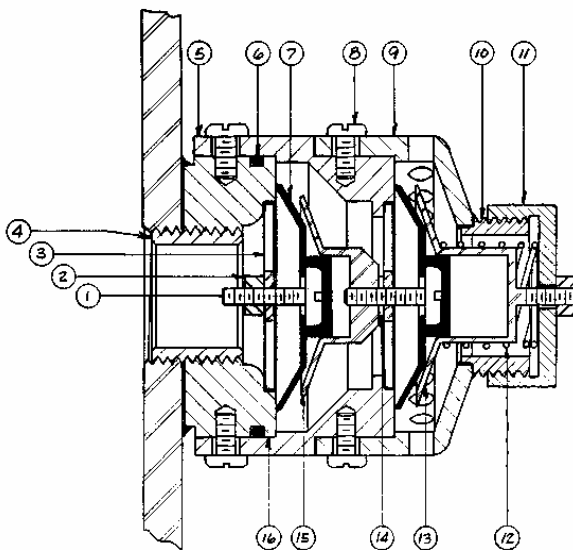
Install the o-ring in the groove after checking the o-ring and the groove for dirt or damage.

The double exhaust assembly can now be installed. Silicone spray on the o-ring and interior surface of the double exhaust will aid in installation.

Before proceeding check the exhaust center section screw holes for burrs which might cut or nick the o-ring. Make sure the o-ring groove in the base is clean and undamaged.

Set the double exhaust assembly on the base squarely. Apply even down pressure to slip it over the o-ring. Slightly rocking the exhaust assembly will help in installing it. Never twist the exhaust assembly as this will damage the o-ring. Watch the screw holes for the o-ring bulging into them. If you force the exhaust assembly down with the o-ring protruding into the screw hole you will nick or cut the o-ring. The end of a drill bit or other item with a similar diameter to the screw hole and flat face can be used to press the o-ring into the groove allowing the exhaust valve to pass.

Install the two 6-32 Stainless Steel Pan Head retaining screws to complete the assembly.



ITEM	QTY	NAME	MAT.	PART NO.	REMARKS
1	2	SET SCREW		53097	
2	2	NUT 10-32		54016	
3	2	SPIDER		52022	SOLDER TO 5116
4	1	BASE STUD		60232A	
5	1	CENTER SECTION		60233	
6	1	O-RING	NEO.	60234	
7	2	FLAPPER DISC	NEO.	56026	
8	4	SET SCREW 6-32	STL.	60235	1/4" LONG
9	1	TOP SECTION		60236	
10	1	EXTENSION		53143	SOLDER TO 9
11	1	KNURLED CAP		53028	
12	1	SPRING		57029	
13	1	PLUNGER		53024	
14	1	STAR WASHER		60237	
15	1	FLAPPER GUARD		60238B	
16	1	BASE		60239	