

WARNING: THIS PROCEDURE MAY ADVERSELY AFFECT THE CLEANLINESS OF THE VALVE AND SHOULD BE PERFORMED ONLY BY SOMEONE THOROUGHLY FAMILIAR WITH THE VALVES END USE.

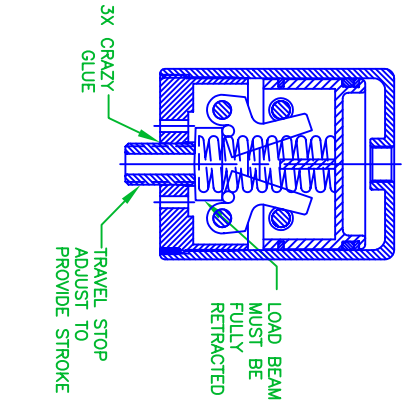
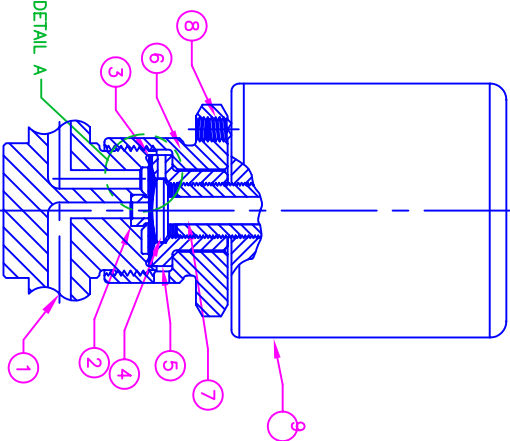
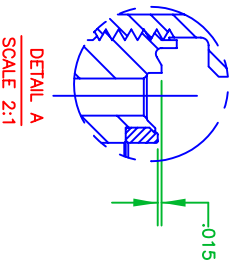
ACTUATOR STROKE AND INSTALLED HEIGHT MUST BE VARIED FOR EACH APPLICATION

I 94 TYPE AIR ACTUATED TITAN SERIES DIAPHRAGM PACKLESS VALVE REPAIR INSTRUCTIONS.

- 1- PRESSURIZE 94 ACTUATOR (9) TO 80 PSI. (DO NOT PRESSURIZE 94 NORMALLY OPEN ACTUATOR) LOOSEN THE THREE SET SCREWS (8) UNDER BONNET NUT REMOVE ACTUATOR AND THEN REMOVE BONNET NUT, STEM BUTTON, AND DIAPHRAGMS. ENSURE THAT THERE IS NO PARTICLE CONTAMINATION INSIDE OF THE VALVE.
 - 2- VISUALLY INSPECT THE SEAT (2). IF ANY CRACKS, DISCOLORATION, OR ANY CONTAMINATION IS FOUND ON THE SEAT, THEN THE VALVE CAN NOT BE REPAIRED. PLEASE CONTACT THE FACTORY FOR FURTHER ASSISTANCE.
 - 3- CAREFULLY MEASURE THE SEAT HEIGHT (DO NOT SCRATCH THE SEAT WHEN MEASURING). IF DISTANCE FROM SEAT TO DIAPHRAGM SEALING SURFACE IS GREATER THAN .015" (SEE DETAIL A), THEN THE VALVE CAN NOT BE REPAIRED. PLEASE CONTACT THE FACTORY FOR FURTHER ASSISTANCE.
 - 4- PLACE NEW DIAPHRAGM ASSY (3) INTO VALVE CAVITY WITH DOME UP. MAKE SURE THE ELECTROPOISHED DIAPHRAGM IS AT THE BOTTOM AND THE SILVER PLATED DIAPHRAGMS ARE BETWEEN THE ELGILOY DIAPHRAGMS.
 - 5- APPLY A SMALL AMOUNT OF GREASE, SUPPLIED WITH THIS KIT, ON THE SURFACES OF BUTTON (4), PLACE BUTTON, BONNET (5), AND BONNET NUT (6) IN TO VALVE CAVITY. MAKE SURE RADIUS SIDE OF BUTTON FACES TOWARD THE DIAPHRAGM. TORQUE BONNET NUT TO 90 LB-FT (80 FT/LB FOR 94 + MODELS)
 - 6- APPLY A SMALL AMOUNT OF GREASE ON THE STEM(?), PUT IT INTO THE BOTTOM HOLE OF ACTUATOR (FLAT SIDE OF THE STEM TOWARD THE ACTUATOR).
 - 7- APPLY 15 PSI GAS TO THE VALVE INLET AND ALLOW TO FLOW THROUGH THE VALVE. THREAD ACTUATOR ASSEMBLY INTO BONNET NUT UNTIL THERE IS NO FLOW.
 - 8- MAKE A MARK ON BONNET NUT & ACTUATOR. PRESSURIZE ACTUATOR TO 80 PSI. TIGHTEN ACTUATOR 1/3 TURN PAST THE MARKED POSITION. (5/12 TURN PAST MARK FOR 94 + MODELS) RELEASE PRESSURE FROM ACTUATOR.
 - 9- EVENLY TIGHTEN THE THREE SET SCREWS IN THE BONNET NUT TO LOCK THE ACTUATOR (20-25 IN LB).
- II 94 NORMALLY OPEN TYPE AIR ACTUATED TITAN SERIES DIAPHRAGM PACKLESS VALVES REPAIR INSTRUCTIONS FOR 94 NORMALLY OPEN ACTUATOR. DO NOT LUBRICATE BONNETOR ACTUATOR THREADS, CHANGE STEPS 7 & 8 TO:
- 7- PRESSURIZE ACTUATOR TO 80 PSI. APPLY 15 PSI GAS TO THE VALVE INLET AND ALLOW TO FLOW THROUGH THE VALVE. THREAD ACTUATOR ASSEMBLY INTO BONNET NUT UNTIL THERE IS NO FLOW.
 - 8- MAKE A MARK ON BONNET NUT & ACTUATOR. RELEASE PRESSURE FROM ACTUATOR. TIGHTEN ACTUATOR 1/6 TURN PAST THE MARKED POSITION.

VALVE TYPE	STROKE +0.002/-0.0
94-NC	0.018
94-MS-NC	"FULL"
94-RS-NC	0.018
94+NC	0.018
94-NO	0.025
94-MS-NO	0.032
94+NO	0.018

ITEM	PART NAME	MATERIAL	QTY
1	VALVE BODY	316L SOG SST	1
2	SEAT INSERT	-	1
3	DIAPHRAGM ASSY	ELGILOY/COPPER	1
4	BUTTON	NITRONIC-60	1
5	BONNET	303 SST	1
6	BONNET NUT	303 SST	1
7	STEM	303 SST	1
8	SET SCREW	ALLOY STEEL	3
9	ACTUATOR	ASSY	1



III SET ACTUATOR STROKE BEFORE INSTALLING

- 94-00001 NC ACTUATOR
PRESSURIZE ACTUATOR TO 70-80 PSIG AND PUSH LOAD BEAM TO ASSURE THE MECHANISM IS FULLY RETRACTED.
FULLY TIGHTEN THE TRAVEL STOP.
TURN THE TRAVEL STOP COW SLIGHTLY LESS THAN 1/2 TURN TO SET THE STROKE PER TABLE 1.
CYCLE ACTUATOR AND VERIFY STROKE. RELEASE ACTUATOR PRESSURE.
APPLY 3 DROPS OF "CRAZY GLUE" TO THE CONTACT CORNER OF THE TRAVEL STOP AND ACTUATOR BASE.
ALLOW TO CURE 30 MINUTES BEFORE INSTALLING.
94-00002 NO ACTUATOR
FULLY TIGHTEN THE TRAVEL STOP.
TURN THE TRAVEL STOP COW SLIGHTLY LESS THAN 1/2 TURN TO SET THE STROKE PER TABLE 1.
PRESSURIZE THE ACTUATOR TO 70-80 PSIG TO LOCK THE TRAVEL STOP.
APPLY 3 DROPS OF "CRAZY GLUE" TO THE CONTACT CORNER OF THE TRAVEL STOP AND ACTUATOR BASE.
ALLOW TO CURE 30 MINUTES.
RELEASE THE PRESSURE.

PART NUMBER 54099228 REV. INITIAL RELEASE E.O.: E.O. 25530

REV.	DESCRIPTION	INCOMP BY	DATE
B			
B	E.O. 32715	HEW	02/22/05

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
FRACTIONS TOLERANCES ON DECIMALS ANGLES
1/16 .XX = ±.010 1/2°
MACH. SURF. FLAT WITHIN .001 IN/IN CONCENTRICITY MACH. SURF.: TR WITHIN 1/2 SUM OF DMS. TOLERANCES REMOVE ALL BURRS
BREAK SHARP EDGES .015 X 45° MACHINE FILETS .01R
MACHINE FINISH 63 MICRO INCH.
INTERPRET PER ASME Y14.5M-1994

MATERIAL	VERIFLO	PART NUMBER	54099228
REV. ASSY	HEW	DATE	11/28/01
DRAWN		TITLE	
VERIFLO		INSTRUCTIONS FOR REPAIR OF TITAN II SERIES, AIR ACTUATED DIAPHRAGM VALVES ES-REPAIR-TITAN-ACTUATED	
PARKER HANNIFIN CORPORATION VERIFLO DIVISION 250 CANAL RICHMOND, CA 94804-0034		INSTRUMENTATION	
SCALE 1/1		REV.	B
SHEET 1		OF	1