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“FIELD” BLADDER REPLACEMENT IN **WEBANCOR** AIR SHAFTS

USE CAUTION WHEN WORKING WITH COMPRESSED AIR

*******Please note in particular any RED safety writing*******

NOTE: Airshafts must be operated at 85-90 psi and therefore safety precautions need to be addressed by following the recommendations for used with compressed air over 35 psi. as outlined by OSHA and IAPA.

- 1) Before attempting to take the shaft apart make sure that the source of the leak is not the valve. Dust and Teflon sealing tape can hold open the valve seat.
- 2) If the shaft has a “Schrader” or tire type valve use the **#1815 BRASS INFLATOR/DEFLATOR** chuck to let **ALL** air out of the shaft. If the **WEBANCOR ST-125** safe valve is used, push the top button to release **ALL** the air.
- 3) Remove the FHSC screws from the **VALVE end journal**. The valve end journal is normally the only journal that needs to be removed. **NOTE:** Use a Hex key that is in good condition; thread locking compounds are used by the factory to secure the bolts during the original manufacture. Failure to use good keys can lead to damaged hex sockets which will make bolt difficult to remove. If this happens use a **“SOCK-IT-OUT”** before trying to drill it out. Use of a **CUTTING TORCH** is not recommended since the journals are made from a heat treated steel. This will void the shafts warranty. Extra torque is required to break the bond, but it can be done by hand with the proper key. If all else fails use a propane type heat source to **warm** the bolts to break the bond of the thread locker. **Do this with caution, do not overheat and damage the heat treatment of the journals.**
- 4) Use a slide hammer to remove the journal from the body. **NOTE:** End valves would use a 7/8-14 thread, while a side valve would have either a 3/8" NC or 1/2" NC thread depending on the journal size. If a slide hammer is not available, use a 3/8" or 1/2" threaded rod and a sliding weight. Use a 7/-14 threaded rod or in an emergency use a 1/2" pipe with threaded ends and a sliding weight. Slide hammer kits are available from **WEBANCOR**.
- 5) The bladder will come out with the valve end journal, and since the lugs in a **WEBANCOR** SHAFT are supported by the sleeve, they do not have to be pinned up unless the lugs are to be replaced. The **WEBANCOR** lug shaft does not have retractor springs so broken springs parts will not be found. **NOTE: ALUMINUM SHAFTS MFG. PRIOR TO MAY 1991 WITH 1/2" WALL-- MUST HAVE THE LUGS PINNED UP TO STOP THEM FROM FALLING IN WHEN BLADDER IS REMOVED. THIS SHAFT DOES NOT HAVE A SLEEVE. (THESE OLDER SHAFTS CAN BE UPDATED WITH A NEW BLADDER, END CAPS AND SLEEVE.)**

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6) Pull/twist the bladder out of the journal socket. The bladder uses an "O RING" fitting, it is not screwed in, so that the bladder comes out easily.

7) Measure the length of bladder and cut a new piece to size. **DO NOT USE A BLADDER THAT IS TOO SHORT. THE BLADDER END CAPS MUST FIT INSIDE THE JOURNAL SOCKET. FAILURE TO DO THIS WILL ALLOW THE BLADDER NO PROTECTION AND CAN FAIL PREMATURELY.** The proper length can be obtained by emailing Support@webancor.com Do not phone for this information. Please supply the serial number of the WEBANCOR air shaft.

8) Trim or chamfer the outer edge of the bladder at about 45 degrees to aid insertion into the end cap. Push the center part of the end cap well into the bladder about 1/2" below the end, it will be a snug fit so this part will not fall further in. Push on the outer cap until it can be assured that the bladder end is inserted as far as it will go. Using a long 1/2-13 bolt threaded into the end cap center, pull the center into the outer cap. Change bolt for proper end cap bolt, with O'ring and washer as per diagram, and tighten until seated. Repeat for both ends. Check length against tube, it is better to be slightly long than too short. We also suggest that fiberglass reinforced tape be wrapped around the bladder at the end cap to reduce the chance of the end cap cutting into the bladder. However make sure it will still insert into the journal socket.

9) Replace the "O rings" (# 012) on the brass O'ring fittings. This is very important since the standard 70 Duro. "Orings" are easily damaged. **Lubricate the O'rings with white or silicone grease to prevent damage while being installed** into the journal socket. **Do not use petroleum greases, as that grease will attack the rubber bladder**

Replacing the journal is the opposite of removal. Make sure that the fit between the journal and the tube is tight. If the fit is loose, the bolts will break. Never use a shaft with any broken bolts, it will allow the journal to flex in the body making the fit looser to the point that bolts will continue to break. If this happens return the shaft to **WEBANCOR** for a rebuild to make it safe. Use **NEW** flat head socket cap screws of the correct length, incorrect lengths can damage the bladder end caps. It is important to use a non permanent thread locking compound on the bolts. Use a thread compound on the valve threads **not tape**, tape tends to "string" and gets into the valve seat, allowing it to leak

Do not test inflate a shaft without making sure the bolts are tight. Journals make an effective cannon projectile when under pressure, and are very dangerous, and have been known to go right through a concrete block wall.

It is usually a good idea to inflate a shaft with a #1641 valve to 90 psi and check with a pressure gauge periodically for loss of pressure. The pressure will drop slightly each time a pressure test is done, this is normal and should be taken into account. This pressure test cannot be done with push button valves, by themselves.

The best way to test a shaft and the valve being used, is to use the **WEBANCOR** #20125 Test manifold for 1/8 npt thread, or the **WEBANCOR** # 20375 manifold for the 3/8" npt threads. This manifold screws into the valve thread, the valve to be used in screwed into the manifold. The shaft is inflated to 85-90 psi and the indicated pressure is checked with the built in gauge. Slow leaks can be monitored over a period of time.

WEBANCOR provides a factory Air Shaft and bowed roll repair service, in the Mississauga factory. **WEBANCOR** uses only the premium **WEBANCOR** rubber compound designed for Air Shafts.

WEB & CORE TECHNOLOGIES INC.

Air Shafts, Air Chucks, Mechanical Shafts and Chucks, Bowed Rolls
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