Maintenance & Operating Instructions

For

Dixon Bayco

AIR INTERLOCK

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**AIR INTERLOCK MODELS**

5000AI - AIR INTERLOCK Ø 1” PLUNGER BUTTON  
5000AIV - AIR INTERLOCK WITH PADDLE  
5000AIR - AIR INTERLOCK WITH ROLLER  
5000AIST - AIR INTERLOCK Ø 1.5” PLUNGER BUTTON  
5000AICH - HEAVY DUTY AIR INTERLOCK Ø 1” PLUNGER BUTTON  
5000AIHVD - HEAVY DUTY AIR INTERLOCK WITH PADDLE  
5000AIHRD - HEAVY DUTY AIR INTERLOCK WITH ROLLER  
5000AISTHD - HEAVY DUTY AIR INTERLOCK Ø 1.5” PLUNGER BUTTON  
5006AIHVD - 6 PORT HEAVY DUTY AIR INTERLOCK Ø 1” PLUNGER BUTTON  
5006AIHVD - 6 PORT HEAVY DUTY AIR INTERLOCK WITH PADDLE  
5006AIHRD - 6 PORT HEAVY DUTY AIR INTERLOCK WITH ROLLER  
5006AISTHD - 6 PORT HEAVY DUTY AIR INTERLOCK Ø 1.5” PLUNGER BUTTON

**USE RELEVANT REPAIR KIT**

5000AIHK – REPLACEMENT BOLT AND WASHER  
5000AISK – SEAL KIT FOR 5000AI / AIV /AIST  
5000AIRS - SEAL KIT FOR 5000AIR  
5000AIHDKS - SEAL KIT FOR 5000AICH / AIVHD /AISTHD  
5000AIRDSK - SEAL KIT FOR 5000AIRHD  
5006AIHDKS - SEAL KIT FOR 5006AIHCH  
5006AIRDK1 - REPLACEMENT PLUNGER BUTTON FOR 5000AI  
5006AIHDRK1 - REPLACEMENT PLUNGER BUTTON FOR 5000AICH / 5006AIHCH  
5000AIRK1 - REPLACEMENT ROLLER BALL KIT  
50005ST - REPLACEMENT PLUNGER BUTTON Ø 1.5” FOR 5000AI  
50005STHD - REPLACEMENT PLUNGER BUTTON Ø 1.5” FOR 5000HD / 5006AIHCH  
50005S – ELECTRONIC SWITCH ATTACHMENT KIT  
5000AIRK2 – PLUNGER BUTTON AND SLEEVE KIT
Connection 1 – Example: Mounted on API Valve 5204

The supply air from the trailer is connected to the NC port. The CYL port is connected to the cylinder to be operated (for example the sequential vapor valve VR6030SQ). The NO port is left open to atmosphere for venting.

When the plunger is pushed, the exposure of the internal ports switches so that the NC port (supply air in this case) is exposed to the CYL port. This causes air to flow to the sequential vapor valves causing them to open.

When the plunger is released, the spring returns the spool to its normal position. Now the NC port is blocked (closed) and the CYL port is exposed to the NO port which is open to the atmosphere. This causes the sequential vapor valves to exhaust the air causing them to close again.
Connection 2 – Example: Mounted On Vapor Valve VR4100

The supply air from the trailer is connected to the NO port. The CYL port is connected to the cylinder to be operated (in this case the truck’s air braking system, creating an open flow of air to the brake cylinder). This is in reverse to the above described “connection 1” because truck brakes are off when there is pressure. The NC port is left open to atmosphere for venting.

When the plunger is pushed, the exposure of the internal ports switches so that the NC port (open to the atmosphere in this case) is exposed to the CYL port. This causes the brake lines to exhaust air and depressurize, causing the brakes to be set (truck brakes are set with a lack of air pressure). Now the trailer cannot accidentally be driven away from the loading rack while the coupler is still connected to the vapor valve.

When the plunger is released, the spring returns the spool to its normal position. Now the NO port is exposed to the CYL port (supply air) and the brake lines are pressurized, causing the brakes to unlock. Now the truck can be driven away.

MAINTENANCE AND PARTS REPLACEMENT

DISASSEMBLE
1. Remove the plunger end (11) and nut (10) from the piston.
2. Remove the plug end (3) from the other end and hold the plug end firmly to prevent the spring from ejecting the plug from your hand.
3. Remove the spring (5), then the piston assembly (2 & 4) by pushing the piston toward the end plug side.
4. Remove the wiper (6) & retaining ring if needed

CLEANING, INSPECTION AND REPLACEMENT OF DISASSEMBLED PARTS
Clean thoroughly and visually examine all the parts. Remove any burrs, dirt and sharp edges that could damage the O-rings (4) during reassembly. Thoroughly clean the piston bore to remove any debris. Replace any damaged parts.

ASSEMBLE
1. Before assembling make sure to apply O-ring lubricant to the O-rings.
2. Then assemble the parts together in reverse sequence of disassembly instructions.

For best performance, the internal seals must be kept lubricated. The use of alcohol or other anti freezing compounds in the air lines can have the effect of removing the air interlock lubrication. Continued use of the air interlock without sufficient seal lubrication will shorten the life of the air interlock.

Dixon recommends LUB CL611014OZ from Hi-Tech (lubricant used in production)

DIXON BAYCO WARRANTY: For Warranty Information, please refer to the inside back cover of the latest Dixon Catalogue.