Kirby Morgan®
Surface Supplied MOD-1

A2.2
Monthly Inspection And Maintenance Checklist

THIS INSPECTION IS THE MINIMUM RECOMMENDED MAINTENANCE AND **SHOULD BE** PERFORMED AT LEAST **ONCE A MONTH** WITH MASK(S) IN CONTINUOUS USE (USED FOR MORE THAN 20 DIVING DAYS IN A MONTH) OR AT LEAST EVERY **TWO (2) MONTHS**, WITH MASK(S) USED LESS THAN 10 DIVING DAYS A MONTH.

This checklist is intended to aid persons performing routine maintenance and inspections of the Surface Supplied Pod. **This checklist should be used in conjunction with the Modular Operations and Maintenance Manual and is primarily intended to be used as a guide and to document the maintenance as it is completed.** Specific detailed procedures for each section of this checklist can be found in the Modular Operations and Maintenance Manuals. This checklist when completed should be retained in the equipment maintenance files.

Mask(s) being used in extreme environments will require more frequent inspection.

During removal of components for inspection, O-rings and other consumable items may be reused, providing they are clean and a visual inspection does not reveal any damage or deterioration.

Perform the Side Block/Balanced Regulator inspection procedures with gas supplies not connected to the Side Block. Attach the gas supply at Step 5 of the “Side Block/Balanced Regulator” inspection procedure.

Date: _____

Mask/Pod Serial Number _____

Associated Equipment Serial #(s): _____

Technician *(print name)*: _____

1. Hood Assembly

DIVER/TENDER – CHECK THE FOLLOWING:

Procedures	Initials
1. Remove Mask Strap and inspect for signs of tearing, deterioration, and/or damage. Ensure all five legs of the Mask Strap and Strap Keepers are present. Guidance Modular O & M Manual.	
2. Remove the Earphones from their pockets. Remove the Hood from the Mask. Perform a visual inspection where the earphone wire goes into the earphone and confirm a solid connection.	
3. Visually inspect the Hood for signs of damage and/or deterioration. Ensure hood frame bracket is not cracked or broken and that the mating surface is not damaged. Verify hood frame brackets are secure by confirming tightness of screws and lock nuts.	

2. Mask Assembly

DIVER/TENDER – CHECK THE FOLLOWING:

Procedures	Initials
1. Visually inspect the Mask exterior for loose and/or missing fasteners and obvious signs damage; including cracks, gouges or depressions.	
2. Perform a complete communications check. Remove Microphone assembly from POD. Inspect and repair or replace as necessary. Ensure mounting screws are present and tight. Guidance Modular O & M Manual.	
3. Inspect the Nose Pinch Assembly and low profile tie wrap. If the Nose Pinch Assembly or tie wrap show signs of damage replace. Guidance Modular O & M Manual.	

Procedures	Initials
4. Remove the Oral Cup. Clean and inspect the cup for damage. Replace if any damage is found. Inspect the exhaust valve. Replace the Valves if they appear dried, stiff, and/or does not lay flat or if parts show sign of damage. Guidance Modular O & M Manual.	
5. Reinstall the Oral Cup. Guidance Modular O & M Manual.	
6. Install Microphone assembly into POD. Perform a complete communications check.	
7. Without air to the Side Block, check the operation of the Steady Flow Valve and EGS Valve. If the Valves do not operate smoothly, they must be overhauled or replaced. Guidance Modular O & M Manual.	
8. Remove Regulator Adjustment knob and Exhaust cover. Inspect the Regulator Exhaust Cover. Inspect the two Exhaust Valves and Seat for damage and/or contamination. Ensure the Valve material is not hardened, distorted, and/or warped. Replace the Valves if questionable.	

3. Side Block/Balanced Regulator

DIVER/TENDER – CHECK THE FOLLOWING:

Procedures	Initials
1. Remove and Inspect the Diaphragm Retainer Ring, Diaphragm Washers and Diaphragm. Visually inspect the interior of the Regulator Pod, Main Tube, Packing Lock Clip Body for corrosion and/or contamination. Clean as necessary.	
2. Carefully inspect the Diaphragm for cuts, tears, and/or deterioration. If any damage is found, replace the Diaphragm. Inspect Purge and Exhaust Valves for warping, distortion, stiffness, and/or damage. If the valves show signs of damage and/or deterioration, replace the Valve.	

Procedures	Initials
3. Confirm that the Emergency Control Knob is turned forward in the OFF position and locked in place. Attach an air supply source to the main gas supply inlet and set the regulated supply pressure to 135 psig (9.3 bar). Turn the Adjustment Knob all the way out then turn in one complete turn. Listen for a slight hiss, indicating a very minor amount of gas escaping from the regulator. Rotate knob in slightly (Clockwise) and verify hiss stops. If hiss does not stop – Regulator requires internal component inspection and or adjustment. Guidance applicable O&M manual	
4. Reinstall diaphragm and associated parts. Install the Regulator Exhaust Cover.	
5. Check the Steady Flow Valve for proper operation.	
6. Ensure that the main supply hose going to the side block is connected to the one way valve either directly in-line or on the manifold block. Attach a regulated gas supply, adjusted to between 135 psig (8 bar), to the Emergency Valve on the Side Block. Pull out and turn back the EGS control knob and lock into the ON position. Turn on the tank. Check the function of the Regulator Purge, regulator Adjustment Knob, and the Steady Flow Valve in accordance with previous steps 5 and 6. There should be no gas exiting the one way valve.	
7. Turn off the gas supply, then bleed down and remove the gas supply from both the main and emergency inlets.	
8. Reinstall hood and head harness	

4. Emergency Gas Supply (EGS)

NOTE

The Emergency Gas System consists of a good quality First Stage Regulator equipped with a submersible pressure gauge, an **Over Pressure Bleed/Relief Valve**, and an Emergency Gas Supply Hose that connects to the Emergency Valve on the Mask Side Block.

DIVER/TENDER – CHECK THE FOLLOWING:

Procedures	Initials
1. Check the hydrostatic date and last visual inspection record ("VIP") of the cylinder. Ensure date(s) are within the specified range. The VIP is done at least annually and the hydrostatic test is done at least every five years.	
2. Check the maintenance record of the EGS components to ensure the First Stage Regulator's maintenance has been performed in accordance with the manufacturer's recommendations.	
3. Check all Hoses for signs of blisters, cover slippage, cuts, and/or abrasions. Replace any Hose(s) that show signs of leakage/damage. If a Quick Connect EGS hose is being used, inspect quick connect and fittings for signs of wear/damage.	
4. Check the Submersible Pressure Gauge, ensure it has been compared to a gauge of known accuracy and inspect the HP hose for signs of corrosion and damage. Replace the hose if any damage is found.	
5. Test the Bleed/Relief Valve and confirm relief is between 180–200 psig (12–14 bar) when tested. Guidance Modular O & M Manual.	
6. Log the lifting pressure _____ psig.  **NOTE** An adjustable First Stage Regulator and a Gas Cylinder with a minimum of 500 psig (35 bar) available are required for this step.  **NOTE** The Bleed/Relief Valve should be adjusted to start relieve between 180–200 psig (12–14 bar) when tested.	
7. Check the over-bottom setting of the First Stage Regulator to ensure it is within the manufacturer's specified pressure range. For KMDSI Helmets and Masks, the minimum over-bottom for the emergency supply is 120 psig (8 bar) and the maximum 145 psig (10 bar). Log the intermediate pressure.	
8. Perform a leak check of all EGS components and fittings using soapy water in a pressurized condition. Repair/replace items as necessary. Make sure to check the knob shaft where it enters the side block.	

Procedures	Initials
9. Inspect the Harness Assembly for signs of wear and/or damage. Repair/replace as necessary.	

Recorded service in mask maintenance log book? ☐ Yes ☐ No

I_____ hereby certify that I have performed the work required in the A2.2 and that **I AM** a certified KMDSI / Dive Lab technician.

Print Name: _____

Signature: _____ Date: _____

ID #: _____ Date of Certification: _____

I_____ hereby declare that I have performed the work required in the A2.2 and **I AM NOT** a certified KMDSI/Dive Lab technician.

Technician/Owner Print Name: _____

Signature: _____ Date: _____

Comments: _____

KMDSI strongly recommends that a certified KMDSI Repair Technician make all repairs and that only genuine KMDSI repair and replacement parts be used. Owners of KMDSI products that elect to do their own repairs and inspections should only do so if they possess the knowledge and experience. All inspections, maintenance, and repairs should be completed using the appropriate KMDSI user guide and Operations and Maintenance Manual(s). Persons performing repairs should retain all replacement component receipts for additional proof of maintenance history. Should any questions on procedures, components, or repairs arise, please contact Kirby Morgan Dive Systems, Inc., by telephone at (805) 928-7772 or via e-mail at kmdsi@kirbymorgan.com, or contact Dive Lab, Inc., by telephone at (850) 235-2715 or via e-mail at divelab@divelab.com.

The Maintenance Log, Appendix 3, found in the Misc. Appendices checklists on the Kirby Morgan website, may be used as a template to create blank pages to record all the maintenance performed.