

**KIRBY MORGAN SUPERLITE DEEP SEA DIVING HELMET MODELS
17A/B, 17C, 17K, 27, AND KM-37, KM-47, KM-57, KM-77
HELMET AND EMERGENCY GAS SYSTEM
DAILY SET-UP AND FUNCTIONAL CHECKLIST**

APPENDIX A2.3

4-14-09

THIS DAILY SET-UP AND FUNCTIONAL CHECKLIST SHOULD BE COMPLETED PRIOR TO COMMENCEMENT OF DAILY DIVING OPERATIONS OR AT LEAST ONCE A DAY IF BEING USED DURING CONTINUOUS DIVING.

NOTE: 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.

WARNING: These are recommended minimum checks when using Kirby Morgan Helmets or Masks. Additional checks may be required as dictated by the conditions and tasks being performed. **Failure to perform in-water checks may result in serious injury or death.**

CAUTION: All diving conducted using Kirby Morgan Helmets or Band Masks must include the use of a fully functional, properly maintained Emergency Gas System (“EGS”). The EGS should be maintained in accordance with the applicable Operations and Maintenance Manual(s).

NOTE: Steps 3(a) - 3(d) use the EGS for setting up and checking the Helmet systems. For a proper check of the Demand Regulator adjustment, the First Stage Regulator must have an intermediate supply pressure output between 135 – 150 psig (9.3 – 10.3 bar). The First Stage Bleed/Relief Valve should be set between 180 - 200 psig (12.4 – 13.8 bar). Do not attach the Umbilical until Step 6.

Date:
Helmet Serial #:
Associated Equipment Serial #(s):
Technician (print name):

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STEP	PROCEDURES	INITIALS
SL-17 A/B YOKE / NECK CLAMP ASSEMBLY STEP 1.1 Helmet Attachment Components		
Note: For SL-17K, SL-17C, SL-27, KM-37, KM-47, KM-57, KM-77 skip to step 1.2		
WARNING: Anytime Helmets and Neck Clamps / Yoke Assemblies are mixed, the Neck Clamp must be checked for proper function, fit and adjustment prior to diving.		
1.1 Yoke/Neck Clamp Assembly SL-17 A/B Note: Applicable to SL-17 A/B ONLY. For all other helmet models skip to step 1.2	Diver/Tender- Check the following (a - c):	
	a. Visually inspect the Yoke/Neck Clamp Assembly for signs of damage. Check the Neck Dam for tears, holes, and/or cuts. Ensure the Neck Dam is of the proper size and fit.	
	b. Test-mate the Yoke Assembly to the Helmet and check for proper Neck Clamp adjustment. If adjustment is necessary, use a 7/16" open-end wrench on Nut (4) as a back-up wrench and a 7/16" deep well socket with a torque wrench and ensure Lock Nut (6) is torqued to 40 inch lbs. Repair/replace and/or adjust parts as necessary. Guidance O&M Manual	
1.2 Neck Dam Ring Assembly 17K, 17C, 27, KM-37, 47, 57, 77	Diver/Tender – Check the following (a-d):	
	a. Visually inspect the Neck Dam Ring Assembly for signs of damage. Check the Neck for tears, holes, and/or cuts. Ensure the Neck Dam is of the proper size and fit.	

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	b. Lightly lubricate the Neck Ring O-ring if the O-ring appears dry.	
	c. Test-mate the Neck Dam Ring Assembly to the Helmet and check for proper adjustment.	
	d. Ensure the sealed Pull Pins work properly.	
2. Visually Inspect the Helmet	Diver/Tender- Check the following (a - d):	
	a. Visually inspect Helmet Shell interior and exterior for damage and/or contamination. Check that the Oral Nasal Valve is correctly installed and the Oral Nasal Mask is installed on the Regulator Mount Nut. Ensure the Nose Clearing Device operates smoothly. Lubricate as necessary. Guidance O&M Manual.	
	b. Ensure the Earphones and Microphones are installed correctly. Guidance applicable O&M Manual.	
	c. Inspect the Head Cushion for proper fit, broken snaps, tears, and/or rips. Guidance applicable O&M Manual.	
	d. Check the O-ring at the base of the Helmet for signs of damage. Ensure the O-ring is lightly lubricated. (SL-17 A/B only)	
3. EGS Inspection	Diver/Tender- Check the following (a - d):	
NOTE: The EGS being used must be properly maintained and fully functional.	a. Visually inspect all EGS Hoses for signs of damage.	
	b. Check the hydro date and ensure the cylinder is within the VIP and the hydrostatic date. Visually inspect the cylinder and valve for obvious signs of damage.	
	c. Ensure the First Stage Regulator pressure and the Over-Pressure Bleed/Relief Valve settings have been checked within the past month.	

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	d. Inspect the Safety Harness and Cylinder Retainer for wear and/or damage. Repair/replace as necessary.	
4. Check the Helmet EGS	Diver/Tender- Check the following (a - f):	
	a. Orally check the One-Way Valve. Guidance O&M Manual.	
	b. Connect the First Stage Regulator to the EGS Cylinder and the Helmet Emergency Supply Valve. With the cylinder turned OFF, open and close the Side Block Emergency Valve to check for smooth operation. Then open and close the Steady Flow/Defogger Valve to verify smooth operation.	
	c. Rotate the Regulator Adjustment Knob in fully (clockwise), then rotate out (counterclockwise) 3 – 4 rotations to check for smooth operation.	
	d. Open the EGS Supply Valve on the cylinder. Log the pressure _____ psig. Next open the Emergency Supply Valve on the Side Block.	
	e. Momentarily open the Helmet Steady Flow 3/4 to 1 full turn. Check for a strong flow of gas out of the Defogging Train, and then close.	
	f. Check for gas escaping from the One-Way Valve. If any gas flow is detected the One-Way valve should be overhauled or replaced.	
5. Check the Demand Regulator adjustment	Diver/Tender- Check the following (a - d):	
	a. Rotate the Demand Regulator Adjustment Knob out (counterclockwise) until a slight free flow develops. Next rotate in (clockwise) until the free flow stops.	
NOTE: If the Purge Button travels further than	b. Slowly depress the Purge Button to check for excessive travel. The Purge Button should travel no less than 1/16” and no more than 1/8” (1.5 – 3.0 mm) before gas flow is heard.	

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1/8” before gas starts flowing, or has a weak flow of gas when fully depressed, the adjustment of the Regulator is necessary. Guidance O&M Manual.	c. Depress the Purge Button all the way and verify a strong surge of gas.	
	d. Ensure the Side Block Emergency Valve is shut and the Bail Out Cylinder Valve is open. Log the cylinder pressure _____ psig.	
6. Attach the Umbilical	Tender: Blow down the Umbilical and attach it to the Umbilical Adapter on the One-Way Valve.	
7. Check the Communications	Diver: Perform communications check.	
8. Check the Hot Water Supply (if applicable)	Tender: Check hot water supply connections if applicable.	
9. Check the Dry Suit Inflation Hose (if applicable)	Tender: Check the dry suit Inflation Hose Connection. Ensure the dry suit Inflation Valve and Exhaust Valve function properly.	
10. Tender-Check the Entire Rig	Tender: Soap and leak check the Helmet/Mask gas fittings and connections including the EGS.	
11. Neck Clamp pin 17A/B only	Tender- Check to ensure the following	
	a. Neck Clamp properly adjusted and Safety Locking Pin present.	
	b. Diver’s Safety Harness is in good condition	
	c. Umbilical Strain Release.	
	d. EGS Hose Quick Disconnect in good working order	
	e. Boots, gloves, knife, and other accessories.	
12. Tender	Note comments or discrepancies below in the comments section. Log maintenance in the applicable maintenance log.	

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Technician 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 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 info@kirbymorgan.com, or contact Dive Lab, Inc., by telephone at (850) 235-2715 or via e-mail at divelab@aol.com.

NOTE: The Maintenance Log, Appendix 3, of the Operations and Maintenance Manual may be used as a template to create blank pages to record all the maintenance performed.

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