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## AFLOAT RECREATION FUND MANAGEMENT DESK GUIDE

### APPENDIX A

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#### **PREVENTATIVE MAINTENANCE SCHEDULE**

Scheduled preventative maintenance of nonappropriated fund (NAF) fitness equipment is not a requirement of the Navy's Preventative Maintenance Schedule (PMS) system. A PMS should be established to keep your NAF fitness equipment in good working order within the harsh confines of the shipboard environment.

The following PMS cards have been prepared for the most common types of recreation fund fitness equipment. These cards, referred to in Chapter 2, Part 2.2 "Inspect/Maintain Recreation Equipment", help the Property Custodian maintain the recreation fund fitness equipment properly.

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SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT  LIFECYCLE	RATES SN/SA	MH .5
MAINTENANCE		TOTAL MH .5 ELAPSED TIME .5	
Inspect and lubricate the Lifecycle seat plunger assembly and seat springs.			
SAFETY PRECAUTIONS  1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS		TOOLS	
Rag(s) Light penetrating oil			
PAGE 1 OF 1			
PROCEDURE			
1. Lubricate seat plunger assembly with light penetrating oil. 2. Inspect seat springs for wear, dirt, and rust. Clean as necessary.			
LOCATION		DATE	

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

(02/09)

A-2

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SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT EXERCISE EQUIPMENT	RATES SN/SA	MH 2.0
MAINTENANCE		TOTAL MH 2.0 ELAPSED TIME 2.0	
Clean, inspect, and lubricate free weights, dumbbells, benches, leg press etc.			
SAFETY PRECAUTIONS			
1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS		TOOLS	
Rag(s) Light penetrating oil Non-skid strips		Wire brush	
PAGE 1 OF 2			
PROCEDURE			
NOTE: This MRC is applicable to free weights, dumbbells, benches, leg presses, and other free standing exercise equipment. Delete steps which do not supply to ship's equipment.			
1. Inspect all free weights and dumbbells for dirt and/or rust, and remove with wire brush.			
LOCATION		DATE	

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

PROCEDURE (Contd)	PAGE 2 OF 2
2. Apply light coat of oil to all free weights and dumbbells.	
3. Inspect all moving parts on benches/leg presses/squat racks/etc. (including incline hinge, leg extension, bench height adjusters, and bench arm adjuster) for:	
a. Proper movement (Adjust/lubricate as necessary.)	
b. Excessive wear (Replace as necessary.)	
c. Hinges/safety pins/adjusters are in place and move freely.	
4. Inspect non-skid type of foot boards for wear. Replace as required.	
5. Inspect rollers for wear and proper lubrication. Replace/lubricate as required.	
6. Inspect caps on end of olympic weight bars. Inspect for wear and proper lubrication. Replace/lubricate as required.	
PAGE 2 OF 2	

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT EXERCISE EQUIPMENT	RATES SN/SA	MH 1.5
MAINTENANCE		TOTAL MH 1.5 ELAPSED TIME 1.5	
Clean, inspect, and lubricate Universal weight machines.			
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS Rag(s) Silicone spray Light weight oil		TOOLS Wrenches (various) Wire Brush	
PROCEDURE 1. Inspect weight guide rails. Rails must be clear of dirt and grease. Clean with silicone spray. 2. Inspect all bolts for proper tightness. 3. Clean all weights free of dirt, grease, and rust. Wire brush as necessary. Apply thin coat of light weight oil to weights.		PAGE 1 OF 2	
LOCATION	DATE		

PROCEDURE (Contd)	PAGE 2 OF 2
<ol style="list-style-type: none"> <li>4. closely inspect pulley lockbolts. Bolts must be tight and show no sign of wear. Replace as necessary.</li> <li>5. Inspect cables for wear. Cables should be round. If cable appears flat or frayed, replacement of cable may be required. Replace as required.</li> <li>6. Inspect "S" hooks for wear. Replace as required.</li> <li>7. Inspect all pins for wear. Replace as required.</li> <li>8. Inspect all hand grips for wear. Replace as required.</li> </ol>	
PAGE 2 OF 2	

SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT LIFEROWER	RATES SN/SA	MH 1.5
MAINTENANCE		TOTAL MH 1.5 ELAPSED TIME 1.5	
Clean, and inspect LifeRower seat, exterior housing, glass monitor cover, extrusion grooves, cables, handle, cable guide, and "S" hook.			
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS		TOOLS	
Rag(s) Cleaner, spray			
PAGE 1 OF 2			
PROCEDURE			
1. Clean seat, outside of housing, and glass monitor cover with nonabrasive spray type cleaner.			
2. Clean roller path free of grease, oil, and dirt. Clean dirt from extrusion grooves. NOTE: A high presence of dirt in extrusion grooves could indicate a problem with alignment of the seat rollers or a problem with the seat roller material.			
LOCATION		DATE	

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

PROCEDURE (Contd)
3. Inspect cable for wear. Pull the cable out until it is fully extended. Check for any signs of wear on the cable. Make sure that the cable has not begun to flatten and become more oval than round. If any fraying or parting of wire is present, replace.
4. Inspect cable guide for wear. Wear indicates that the LifeRower is being subjected to improper usage and that there could be cable damage in the future if improper use continues.
5. Inspect handle. Make sure that the nit which holds handle eyelet in place is properly tightened. Do not over tighten or handle movement will be restricted. NOTE: Anytime handle is removed, a new lock nut should be installed to ensure proper retention.
6. Inspect "S" hook for wear. Replace "S" hook at any sign of wear.
PAGE 2 OF 2

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT LIFECYCLE	RATES SN/SA	MH .5
MAINTENANCE		TOTAL MH .5 ELAPSED TIME .5	
Clean and inspect LifeCycle exterior housing, seat, and seat plunger assembly.			
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS		TOOLS	
Rag(s) Cleaner, spray			
PROCEDURE		PAGE 1 OF 2	
1. Clean housing exterior and seat surfaces. 2. Clean seat plunger assembly for ease of operation.			
LOCATION		DATE	

MAINTENANCE REQUIREMENT CARD (MRC)  
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(02/09)

A-6

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SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT LIFESTEP	RATES SN/SA	MH .5
MAINTENANCE		TOTAL MH .5 ELAPSED TIME .5	
Clean LifeStep belt, dip tray, foot pedals, and exterior housing.			
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS		TOOLS	
Rag(s) Cleaner, spray			
PROCEDURE		PAGE 1 OF 1	
1. Clean exterior surfaces with nonabrasive, spray type cleaner.			
LOCATION	DATE		

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

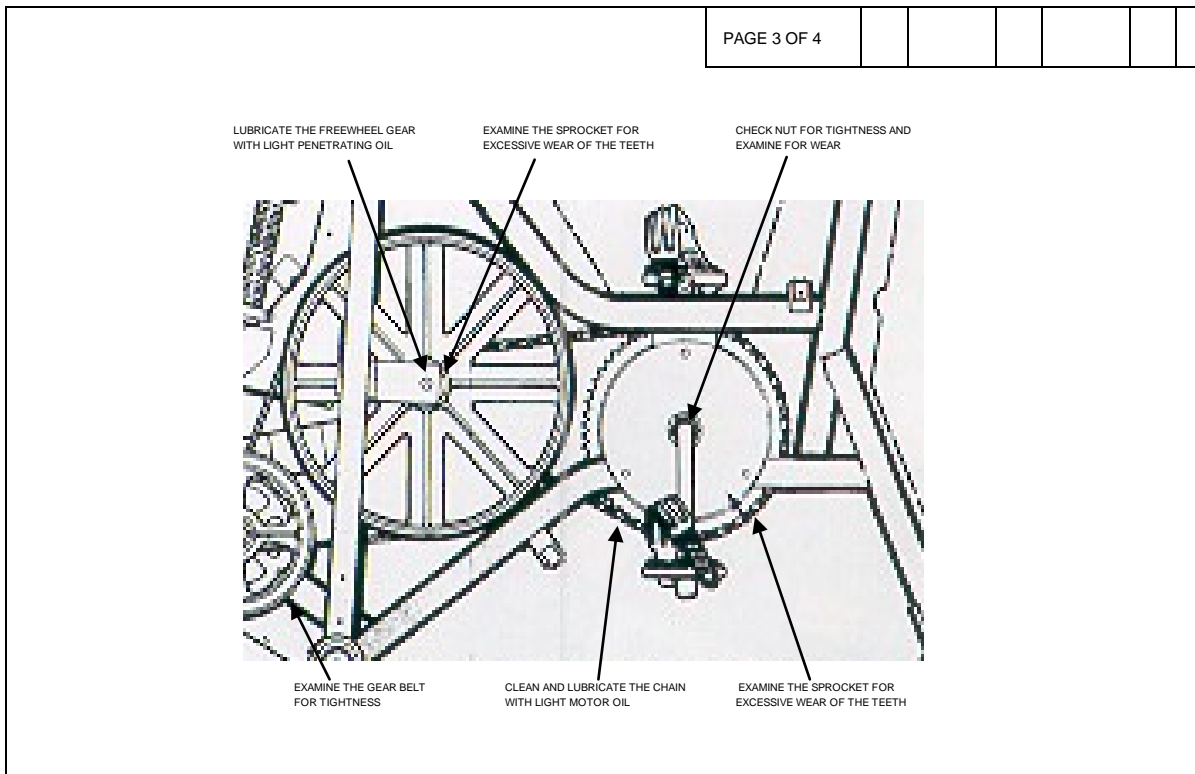
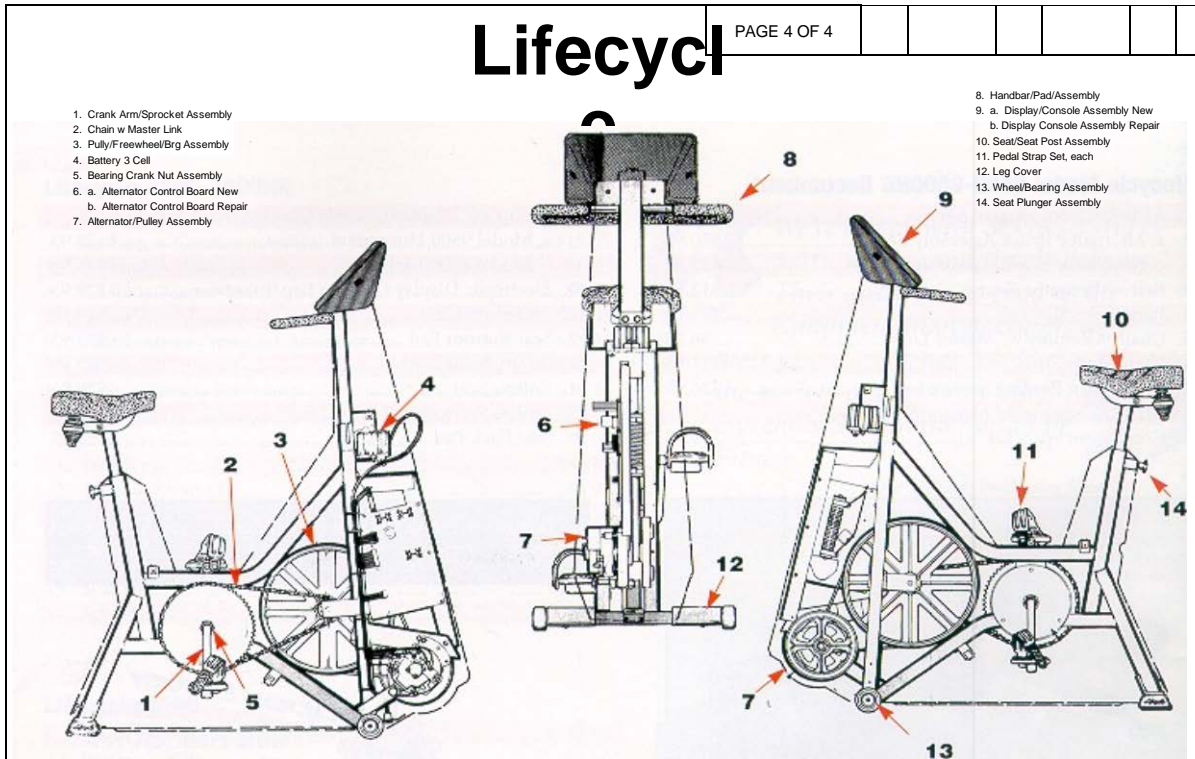
SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT LIFECYCLE	RATES SN/SA	MH
MAINTENANCE		TOTAL MH ELAPSED TIME	
Clean, inspect, and lubricate VersaClimber lubrication areas and chain.			
SAFETY PRECAUTIONS			
1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS	TOOLS		
Rag(s) Circuit board cleaner Light motor oil Light penetrating oil	Screwdriver, Phillips		
PROCEDURE			
1. Remove housing screws. Pull the seat pin back and guide the seat post from the bike frame. Remove the seat post cover.			
LOCATION	DATE		

MAINTENANCE REQUIREMENT CARD (MRC)  
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PROCEDURE (Contd)
<ol style="list-style-type: none"> <li>Separate and remove the left and right handlebar covers as necessary. Turn the left crank arm to the top. Slide the left side housing up and over the left crank arm. Swing the right crank arm to the top. Slide the right side housing up and over the right crank arm.</li> <li>Clean interior of both housings.</li> <li>Clean alternator control board (8) with circuit board cleaner.</li> <li>Inspect chain for excessive wear. Replace as necessary.</li> <li>Clean and lubricate chain with light motor oil.</li> <li>Inspect bearing crank nut assembly for proper tightness to ensure optimal function and life of the crank bearings. Inspect crank nut for wear at the point where it meets the bearings. Replace if wear is excessive.</li> <li>Clean and lubricate working pedal parts with light penetrating oil.</li> <li>Lubricate the freewheel gear with light penetrating oil in order to keep coasting action smooth.</li> <li>Clean alternator flywheel (9) from dirt, oil and dust.</li> <li>Clean seat post shaft and insertion from dirt and/or rust.</li> <li>Inspect gear belt for proper tightness and wear. A loose belt will wear unevenly and require replacement.</li> <li>Inspect sprocket teeth for excessive wear.</li> <li>Return equipment to condition of readiness.</li> </ol>

MAINTENANCE REQUIREMENT CARD (MRC)  
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(02/09)

A-10

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SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT LIFESTEP	RATES SN/SA	MH 1.5
MAINTENANCE  Clean, inspect, and lubricate LifeStep power board, opto board, chain, clutch sprocket, crossover sprocket, foot pedal, display, dip tray, and gear belts.		TOTAL MH 1.5 ELAPSED TIME 1.5	
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS  Rag(s) Circuit board cleaner Champion molly grease Heavy weight motor oil Cleaner, spray		TOOLS  Screwdriver, Phillips	
PROCEDURE  NOTE: LifeStep components are numbered in () as per figure.  1. Remove housing and clean interior. 2. Clean power board (18) and opto board (23) with circuit board cleaner.		PAGE 1 OF 3	
LOCATION		DATE	

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

PROCEDURE (Contd)	
<ol style="list-style-type: none"> <li>3. Inspect chain (5) for wear. If excessive wear is present, replace. Clean and lubricate chain with champion molly grease or heavy weight motor oil. <u>Do not</u> use spray lubricants.</li> <li>4. Clean and inspect clutch sprocket (22) and crossover sprockets (20, 21). Cleaning of sprockets prevents any deviations in the step readings. Inspect sprockets for excessive teeth wear.</li> <li>5. Lubricate foot pedal (9).</li> <li>6. Clean display (2) and inspect for proper operation.</li> <li>7. Inspect drip tray for excessive oil and cracks.</li> <li>8. Inspect gear belts (15) for proper excessive wear and proper tension. Keep gear belts tight. A loose belt will wear unevenly and require replacement. If excessive or uneven wear is present, replace.</li> <li>9. Replace housing.</li> </ol>	PAGE 2 OF 4

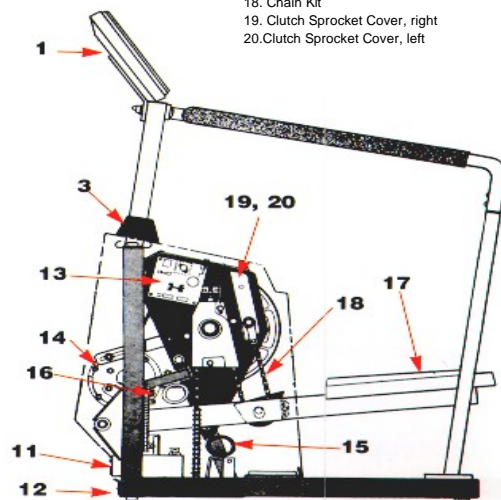
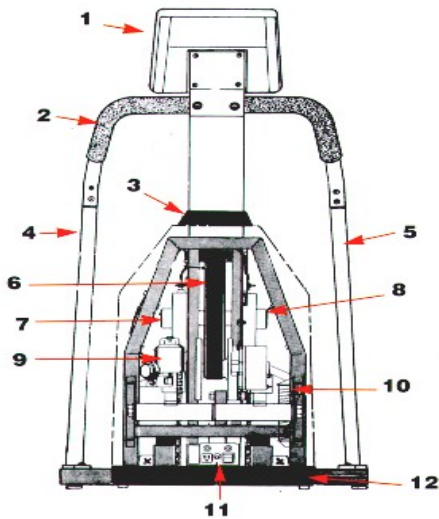
MAINTENANCE REQUIREMENT CARD (MRC)  
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# Lifestep

PARTS IDENTIFICATION

1. a. Display Console, New  
b. Display Console Repair Service
2. Molded Handle
3. Boot
4. Vertical Handle, right
5. Vertical Handle, left
6. Belt, lower
7. Clutch w/Bearing Assy, right
8. Clutch w/Bearing Assy, left
9. Oiler Assembly
10. Resistor w/Bracket & Retainer Assy

11. Power Module w/Beacket Assy
12. Grease Tray Assembly
13. P.C. Board Assembly
14. Alterbator Flywheel Assembly
15. Spring, lower
16. Spring, upper
17. Foot Pad
18. Chain Kit
19. Clutch Sprocket Cover, right
20. Clutch Sprocket Cover, left



SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT LIFEROWER	RATES SN/SA	MH .5
MAINTENANCE		TOTAL MH .5 ELAPSED TIME .5	
Clean and inspect LifeRower interior cover, gear mechanisms, and seat rollers.			
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS Rag(s) Cleaner, spray		TOOLS Screwdriver, Phillips	
PROCEDURE		PAGE 1 OF 1	
1. Remove housing covers and clean interior of cover.			
2. Inspect internal gear mechanisms for damage and wear.			
3. Replace housing covers.			
4. Inspect seat rollers for wear and damage. Replace if necessary.			
LOCATION		DATE	

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

(02/09)

A-12

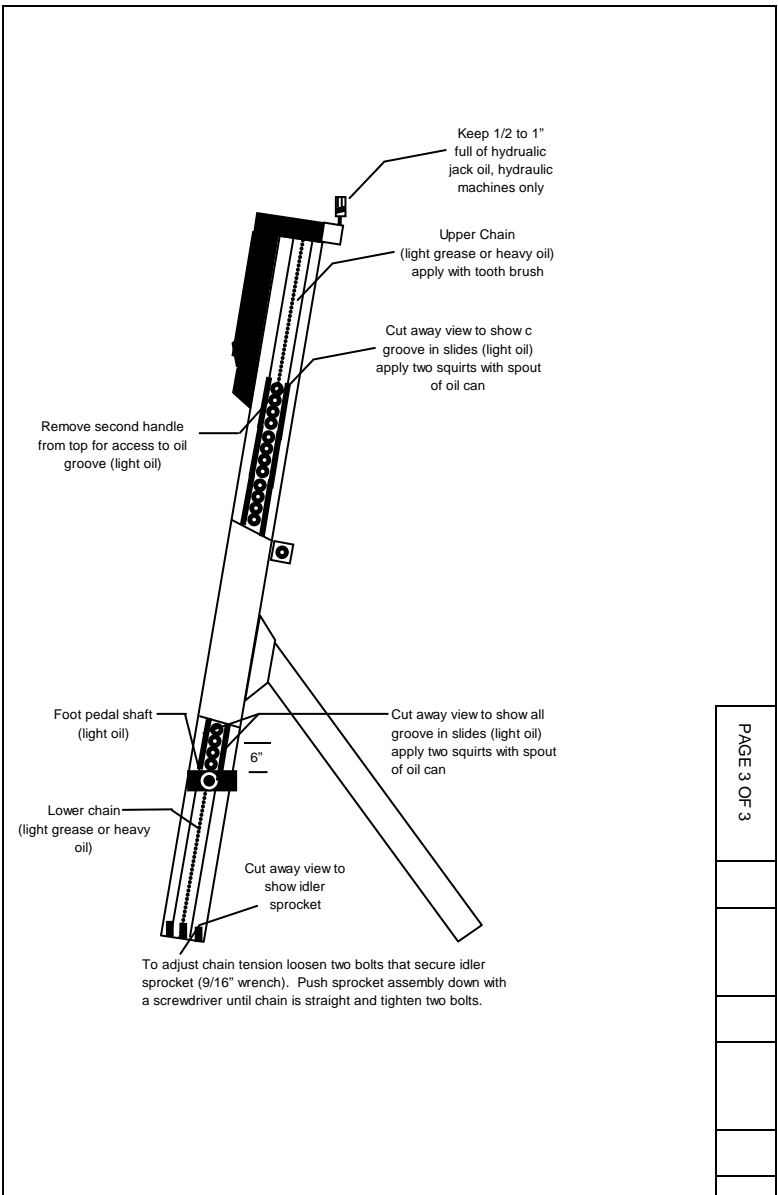
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SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT VERSACLIMBER	RATES SN/SA	MH .5
MAINTENANCE  Clean, inspect, and lubricate LifeCycle interior housing alternator control board, chain, bearing crank nut, pedals, flywheel gear, alternator, flywheel seat post shaft, gear belt, and sprocket.		TOTAL MH .5 ELAPSED TIME .5	
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS		TOOLS	
Rag(s)		Toothbrush	
Hydraulic jack oil		3/16" Wrench	
Light grease or heavy oil		Screwdriver, Phillips	
Light penetrating oil			
PAGE 1 OF 3			
PROCEDURE 1. Visually inspect the lubrication areas described below (figure 1-1). Lubricate when machine movement is not smooth or if you cannot see or feel lubrication in the areas indicated. Before lubricating, wipe excess oil, grease, and dirt from the sliding surfaces through openings in sides of machine. Lubricate both side, top, and bottom of machine.			
LOCATION		DATE	

MAINTENANCE REQUIREMENT CARD (MRC)  
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PROCEDURE (Contd)
<ol style="list-style-type: none"> <li>a. Maintain oil fill reservoir 1/2 - 1/3 full of hydrolic jack oil.</li> <li>b. Lubricate upper chain with light grease or heavy oil. Apply with toothbrush. Repeat procedure on lower chain.</li> <li>c. Remove second handle from top for access to oil groove. Lubricate oil grooves in the upper slides by applying 2 squirts of light penetrating oil.</li> <li>d. Lubricate oil grooves in the lower slides by applying 2 squirts of light penetrating oil.</li> <li>e. Lubricate pedal shaft with light penetrating oil.</li> <li>f. Lubricate idler sprocket with light penetrating oil.</li> </ol> <ol style="list-style-type: none"> <li>2. Inspect chain tension. To adjust tension, loosen the 2 bolts that secure idler sprocket (9/16" wrench). Push sprocket assembly down with a screwdriver until chain is straight and tighten 2 bolts.</li> </ol>
PAGE 2 OF 3

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)



SHIP SYSTEM Exercise Equipment	SUBSYSTEM	MRC CODE	
SYSTEM	EQUIPMENT VERSACLIMBER	RATES SN/SA	MH .5
MAINTENANCE  Replace VersaClimber battery upon depletion		TOTAL MH .5 ELAPSED TIME .5	
SAFETY PRECAUTIONS 1. Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.			
TOOLS, PARTS, MATERIALS, TEST EQUIPMENT			
MATERIALS Fully recharged battery		TOOLS	
PROCEDURE 1. A fading of the machine's display indicates the need for a fresh battery. 2. Remove the discharge battery from the battery holder on the left side of the machine and replace it with a fully recharged battery or a standard nine alkaline battery.			PAGE 1 OF 2
LOCATION	DATE		

MAINTENANCE REQUIREMENT CARD (MRC)  
OPNAV 4790 83 (REV. 2-82)

PROCEDURE (Contd) 3. Recharge the old nicad battery by plugging it into its charger and plugging the charger into a receptacle for a minimum of 14 hours.	PAGE 2 OF 2
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