



SHIP BINOCULARS

LUBRICATE CARRIAGE ASSEMBLY

MRC: 42 AC18 Y Periodicity: Q-2R

Force Revision: 1-23

Overview

Main Tasks	1.0	2.0	3.0
Tasks	1.1 1.6 1.11 1.2 1.7 1.12 1.3 1.8 1.13 1.4 1.9 1.14 1.5 1.10	2.1 2.2 2.3	3.1 3.2 3.3
Sub Tasks	1.3.1 1.3.2 1.3.3 1.7.1 1.7.2	2.1.1 2.2.1 2.3.5 2.1.2 2.2.2 2.3.6 2.1.3 2.2.3 2.3.7 2.1.4 2.2.4 2.3.8 2.1.5 2.2.5 2.3.9 2.1.6 2.2.6 2.3.1. 2.1.7 2.3.1 2.3.11 2.1.8 2.3.2 2.3.12 2.1.9 2.3.3 2.1.10 2.3.4	3.1.1 3.2.6 3.3.8 3.1.2 3.2.7 3.3.9 3.1.3 3.2.8 3.3.10 3.1.4 3.3.1 3.3.11 3.1.5 3.3.2 3.3.12 3.2.1 3.3.3 3.3.13 3.2.2 3.3.4 3.2.3 3.3.5 3.2.4 3.3.6 3.2.5 3.3.7

Note: This visual aid is supplementary to and does not supersede the MRC. Maintenance shall not be performed without an MRC present.



SHIP BINOCULARS: BINOCULARS LUBRICATE CARRIAGE ASSEMBLY



Complete the steps below in order

STEP 1 LUBRICATE CARRIAGE ASSEMBLY

NOTE: Accomplish this maintenance requirement when any of the following periodicities or situations occur:

- A. Quarterly
- B. Prior to deployment

1. Lubricate Mk 3 MOD 0, 1, or 3 binocular carriage assembly.

1.1 Donn PPE.

1.2 Wipe grease fittings to remove foreign matter before applying lubricant.

1.3 Inject grease with grease gun through each fitting until grease appears around housing.

1.3.1 Inject grease through the elevation mount housing.

1.3.2 Inject grease through the worm gear housing.

1.3.3 Inject grease through the upper pedestal post (Mod 0 only).

1.4 Remove excess grease with a clean cloth.

1.5 Loosen locking knob and swing it clear of the 'U' slot.

1.6 Lift binocular off the dovetail mount of carriage assembly.

1.7 Remove carriage assembly.

1.7.1 Loosen 2 carriage assembly swing bolt nuts.

1.7.2 Lift carriage assembly from pedestal.

1.8 Wipe foreign matter and residue from base of carriage assembly carriage swing bolts, and top plate of pedestal with a clean cloth.

1.9 Apply a light coat of anti-seize compound to base of carriage assembly and swing bolt threads.

1.10 Doff PPE.

1.11 Reinstall carriage assembly onto pedestal: tighten swing bolt nuts.

1.12 Reinstall binocular onto the dovetail assembly.

1.13 Tighten locking knob.

1.14 Return equipment to readiness condition.

END
Binocular carriage assembly is lubricated.

WARNING: Avoid inhalation of, ingestion of, skin contact with, and eye contact with hazardous materials. Avoid use near heat or open flame and provide adequate ventilation. Consult Work Center supervisor if unsure whether ventilation is adequate and if respiratory protection is necessary.

CAUTION: Carriage assembly is heavy. Use 2 persons to lift carriage assembly off of and onto pedestal.

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INVENTORY

PPE | Anti-seize compound | Termalene 2 grease | Acid swabbing brush | General purpose grease | Cloth | O-ring | Gasket | Holder | Socket head screw key set | Lubricating gun | Punch | Flat tip screwdriver | Adjustable wrench



SHIP BINOCULARS: BINOCULARS LUBRICATE CARRIAGE ASSEMBLY

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Complete the steps below in order

STEP 2 LUBRICATE CARRIAGE ASSEMBLY

2. Lubricate Mk 3 MOD 2 binocular carriage assembly

1.1 Donn PPE.

2.1.1 Remove binoculars by loosening hand wheels at top of yoke so that clamp may pivot; lift binocular from yoke.

2.1.2 Remove socket head cap screws from the dial support plate. Note position of dial plate in relation to dial pointer for reassembly. Remove the dial and support plate as an assembly.

2.1.3 Remove socket head cap screws from the brake shaft assembly and assembly from the yoke.

2.1.4 Remove yoke from the elevation shaft. Note any shims that are used on top of the elevation shaft for reassembly.

2.1.5 Remove spring pin from the handle of the brake shaft assembly, then remove the brake shaft assembly and brake shaft from the bearing sleeve.

2.1.6 Donn PPE.

2.1.7 Wipe grease and residue from yoke and brake shaft and top of elevation shaft.

2.1.8 Inspect preformed packing for damage.

2.1.10 Brush a coating of grease on yoke and brake shaft surfaces.

NOTE: Use of a punch may be necessary to remove the spring pin from the brake shaft handle.

NOTE: Accomplish this maintenance requirement when any of the following periodicities or situations occur:

- A. Quarterly
- B. Prior to deployment

2.2 Lubricate elevation carriage hand crank assembly.

2.2.1 Remove socket head cap screws that hold hand crank housing to the elevation carriage and remove the hand crank assembly.

2.2.2 Remove set screw from rear of the gear housing and disassemble the drive shaft, bushing, and gear.

2.2.3 Clean all grease and residue from gear housing and components.

2.2.4 Inspect preformed packing for damage.

2.2.5 Brush a coating of grease on shaft, inside of bearing sleeve, inside and outside of bushing, and gear teeth.

2.2.6 Apply a coat of sealant on set screw threads and install the set screw through gear housing into bushing.

2.3 Lubricate three elevation carriage bearing assembly.

2.3.1 Loosen elevation carriage assembly swing bolt nuts and lift carriage assembly from pedestal.

2.3.2 Remove socket head cap screws and lock nuts from carriage housing cover. Remove cover.

2.3.3 Remove socket head screws from straight pin and remove pin.

2.3.4 Remove elevation shaft and attached components.

2.3.5 Clean all grease and residue from elevator shaft and components including the ball bearing, bearing sleeve, gear teeth, round nut, and thrust bearing.

2.3.6 Inspect preformed packing for damage.

CAUTION: Use 2 persons to lift carriage assembly off of and onto pedestal.

2.3.7 Brush a coating of grease on ball bearings, interior of bearing sleeve, gear teeth, round nut threads, elevation shaft thread, and key way.

2.3.8 Apply a coat of sealant to screw threads and reassemble elevation carriage, bearing, hand crank, and yoke brake shaft assemblies.

2.3.9 Wipe foreign matter and residue from base of carriage assembly, carriage swing bolts, and top plate of pedestal with a clean cloth.

2.3.10 Apply a light coat of anti-seize compound to base of carriage assembly and swing bolt threads.

2.3.11 Donn PPE.

2.3.12 Return equipment to readiness condition.

END

Binocular carriage assembly is lubricated.

WARNING: Avoid inhalation of, ingestion of, skin contact with, and eye contact with hazardous materials. Avoid use near heat or open flame and provide adequate ventilation. Consult Work Center supervisor if unsure whether ventilation is adequate and if respiratory protection is necessary.

INVENTORY

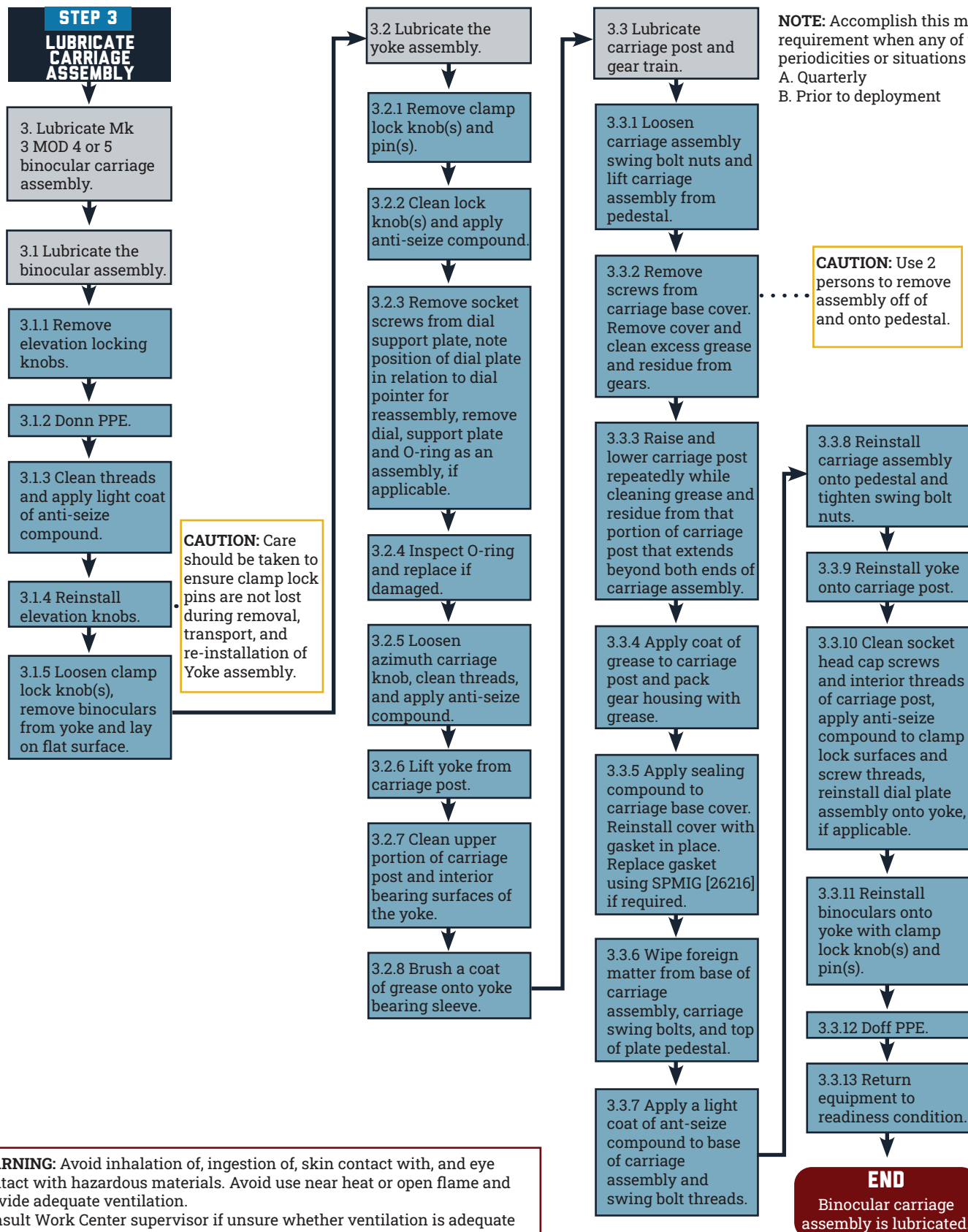
PPE | Anti-seize compound | Termalene 2 grease | Acid swabbing brush | General purpose grease | Cloth | O-ring | Gasket | Holder | Socket head screw key set | Lubricating gun | Punch | Flat tip screwdriver | Adjustable wrench

CUI

U.S. NAVY QUARTERMASTER



Complete the steps below in order



INVENTORY

PPE | Anti-seize compound | Termalene 2 grease | Acid swabbing brush | General purpose grease | Cloth | O-ring | Gasket | Holder | Socket head screw key set | Lubricating gun | Punch | Flat tip screwdriver | Adjustable wrench