# MATERIAL CONDITIONS OF READINESS



## **ENABLING OBJECTIVES**

- List the contents of the Darken Ship Bill
- Describe the three material conditions of readiness
- Describe the purpose, function, components, and requirements of the DC Closure Log

# TEN COMMANDMENTS OF DAMAGE CONTROL

- **☆KEEP YOUR SHIP WATERTIGHT**
- **DO NOT VIOLATE MAT'L CONDITION**
- **BHAVE CONFIDENCE IN YOUR SHIP'S ABILITY TO WITHSTAND SEVERE DAMAGE**
- (h) KNOW YOUR WAY AROUND -- EVEN IN THE DARK!
- **SKNOW HOW TO USE & MAINTAIN DAMAGE CONTROL EQUIPMENT**
- **© REPORT DAMAGE TO THE NEAREST DCRS**

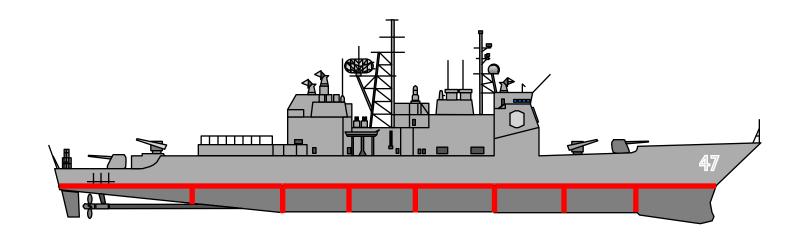
# TEN COMMANDMENTS OF DAMAGE CONTROL

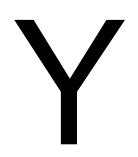
- **UKEEP PERSONAL ARTICLES PROPERLY SECURED**
- ② PRACTICE PERSONAL DAMAGE CONTROL.
  PROTECT YOURSELF SO YOU CAN PROTECT
  YOUR SHIP!
- ② TAKE EVERY POSSIBLE STEP TO SAVE THE SHIP AS LONG AS A BIT OF HOPE REMAINS.
- **EXECUTE:** EXECUTE: E

LT 3.1

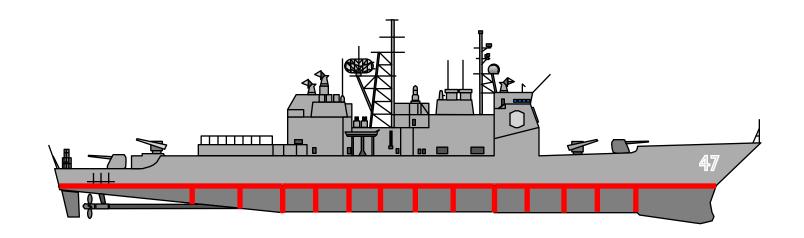


Set when the ship is in no danger of attack. All fittings classified X-RAY should be closed at all times.



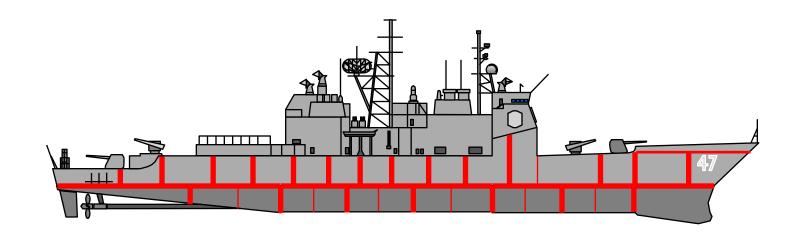


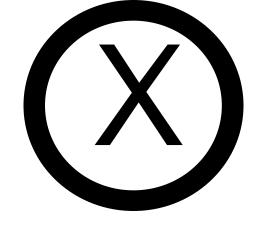
Set and maintained at sea, in port outside of normal working hours. Both X-RAY and YOKE closures and fittings are secured.

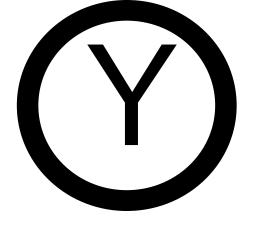


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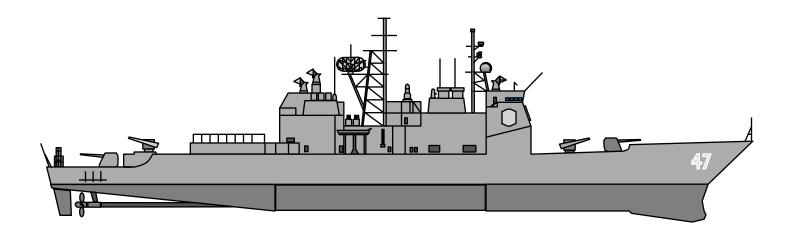
Set during General Quarters. All X-RAY, YOKE and ZEBRA fittings are secured.







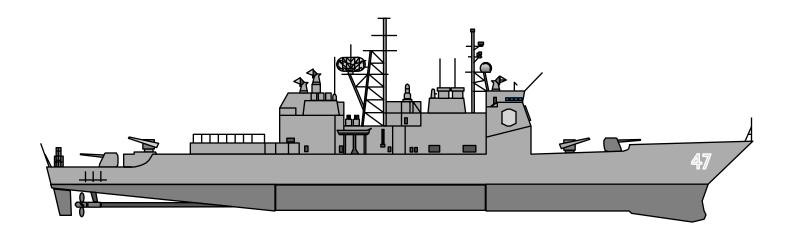
Opened without special permission Transiting from battle stations As required for routine inspections Access to vital spaces Immediately secured after passing





Used to facilitate the feeding of the crew and to allow use of sanitary spaces in extended periods of condition ZEBRA

CO's authorization required



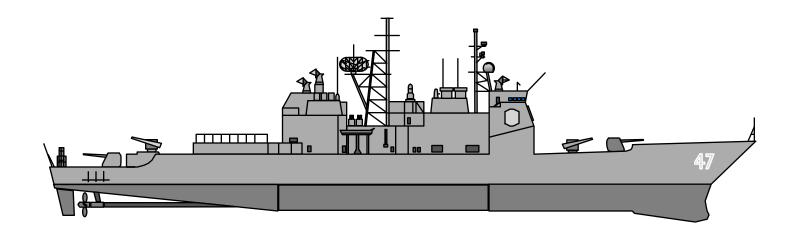
## DOG ZEBRA



Required to be secured when condition ZEBRA is set

Located in decks and bulkheads exposed to the weather

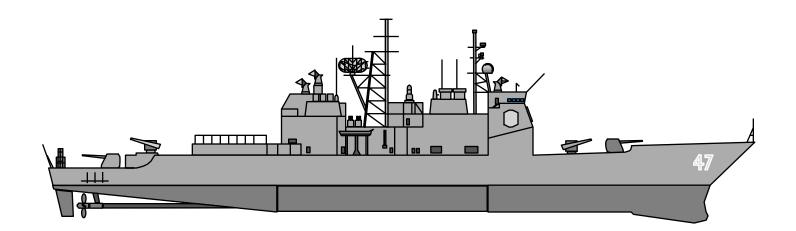
Secured during darken ship to prevent light from showing outside the ship

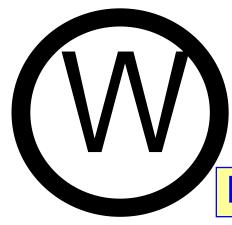


# William

Opened during all material conditions

Secured only to control damage or casualties and to effect repairs



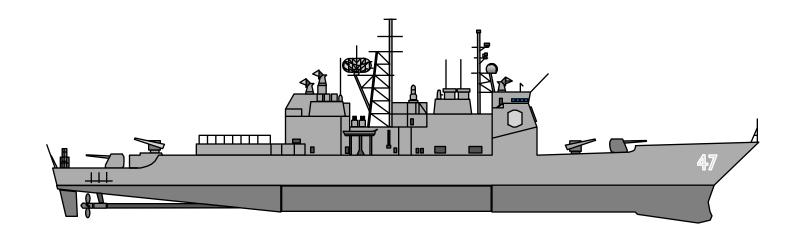


### CIRCLE WILLIAM

Fittings that access ventilation

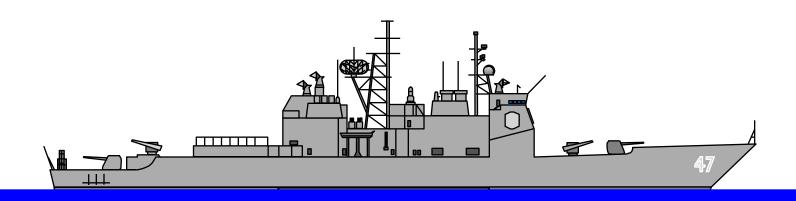
Always open and operating regardless of material condition

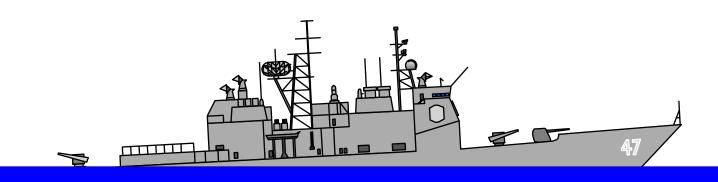
Secured only to prevent the spread of damage or for <u>CBR</u> defense

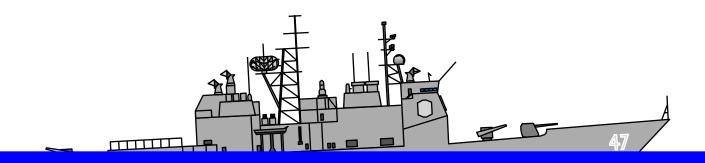


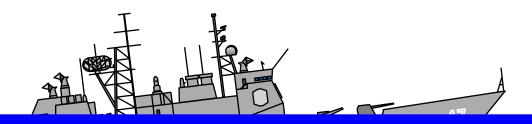
## MOB-D-11-SF SETTING MATERIAL CONDITION (ZEBRA AND YOKE)

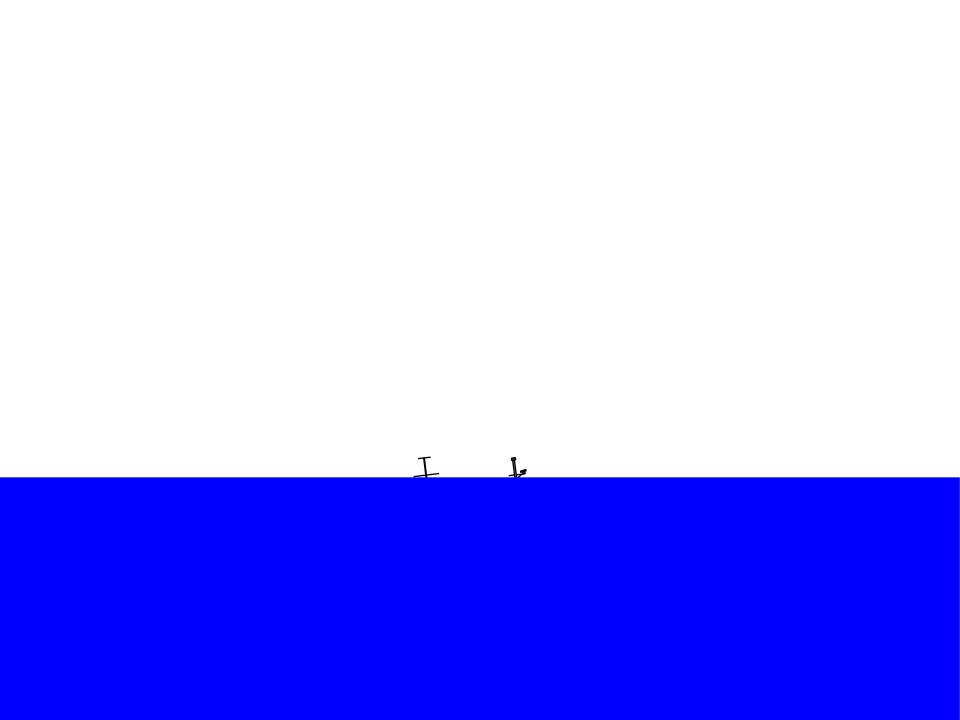
- TRAIN PERSONNEL IN SETTING OF MATERIAL CONDITION ZEBRA & YOKE
- MAJOR DISCREPANCY:
  - DEGRADE STABILITY OR FIGHTING
     ABILITY OF SHIP IN EVENT OF
     COLLISION, WEATHER, BATTLE DAMAGE
     OR CBR
- MINOR DISCREPANCY:
  - REFLECTS THOROUGHNESS IN PROPER SETTING OF MATERIAL CONDITIONS











"DCA, YOUR PRESENCE IS REQUESTED ON THE BRIDGE"

### DC CLOSURE LOG

- Log of all fittings open in violation of set material condition of readiness
- Per the SORM
- Responsibility of
  - DCC Watch Officer (DCC manned)
  - –OOD on Bridge/QD
  - DCA during GQ

## DC CLOSURE LOG

- CO regulates maximum number of violations allowed
  - With DCA recommendation
- Fittings cannot be logged open for more than <u>24 hours</u>
- Log must be filled out in black ink

#### CONTENTS OF THE DC CLOSURE LOG

- VIOLATION OF MATERIAL CONDITION LOG
  - NAME, RATE,DIVISION
  - TYPE, DC #, DCCLASSIFICATION
  - DATE, TIMEOPENED/TO BESECURED
  - PERSON GRANTING PERMISSION

- ITEMS LOGGED
  - SETTING/CHECKIN
     GMATERIAL COND.
  - MODIFICATION OF MAT'L CONDITION
  - GQ
  - LOCKED FITTINGS
  - GROUP FITTINGS
    - APPROVAL OF EACH GROUP BY CO

| OPNAVINST 7120.32 IREVISED 19791 |                |                 |                  | MATERIAL CONDITION | IN EFFECT   |          |         | 15 APRIL 88  |                              |               |             |
|----------------------------------|----------------|-----------------|------------------|--------------------|-------------|----------|---------|--------------|------------------------------|---------------|-------------|
|                                  |                |                 | YOKE             |                    |             | T        |         |              | COANTING REQUIRED            |               |             |
| COMP<br>NO.                      | FITTING<br>NO. | TYPE<br>FITTING | FITTING<br>CLASS | NAME               | AATE        | DIV      | OPENED  | CLOSED       | EST LENGTH<br>TIME<br>OPENED | MARIE         | RATE        |
| 2-40-1-L                         | 2-41-1         | WTH             | Х                | Jones              | BMI         | J5T      | d82¢    | 1901         | XX MIN.                      | Smit (resou)  | HTI         |
| 2-159-2-0                        | 2-140-2        | GAWTS           | X                | Doe                | 5K2         | 5-1      | ¢823    | 6901         | 3 Hes.                       | Smit (cere)   | HTI         |
| 3-84-4-L                         | 3-84-0         | WTD             | Υ                | Hawk               | 51/         | 320      | Ø83/    | 0901         | 1HR.                         | Smith (Octob) | <del></del> |
| 5-114- Ø-E                       | 5-117-2        | FMCOV           | Y                | Sail               | <i>B</i> 73 | <b>B</b> | 0837    | 0901         | 4 HR.                        | Smith (Octon) | HTI         |
|                                  | - GEN          | ERAL QU         | ARTERS-          | ZEBRA SET Q        | 901         |          |         |              |                              |               | <u>-</u>    |
|                                  | ECC E          | OUTE #3A        |                  |                    | 4           | 444      | 0906    | 6936         | 3¢Mm/.                       | Jones (DCA)   | IJζ         |
| 2-104-1-L                        | 2-10/3-1       | WTS             | 7                | REP 2              |             |          | 0910    | 0921         | IB MIN.                      | Jones (OCA)   | 1734        |
| 3-210-2-L                        | 3-27/-2        | QAWTS           | Υ                | Rep 3              | ļ <u></u>   |          | \$911   | <i>\$957</i> | 1 H2.                        | Jones (DCA)   | 1374        |
|                                  | M              | ATBUM.          | BONDITO          | IYOKE SET O        | 957         | - Secu   | RED FR  | ou 65.       | ERAL OU                      | (ART 625 ~~   |             |
| 4-30-0-L                         | 4-31-1         | W7D             | У                | Knot               | HT2         | R        | 1001    | 1847         | 36 MINS.                     | Sout (com)    | H,          |
| 1-61-1-9                         | 1-62-2         | GAWITD          | X                | Tynch              | Bui         | 240      | 1015    | 1436         | 5HRS.                        | Smit (ochod)  | HT,         |
| 3-37-6-L                         | 3-41-1         | W73             | X                | Stop               | SKI         | 5-2      | 1021    | 2230         | 12 HRS.                      | Smit (ccrew)  | HTI         |
| 3-85-2-L                         | 3-82-2         | WTH             | У                | Tuna               | M5/         | 5-3      | 1135    | 0038         | 12HRS.                       | Sout (ocesu)  | HT,         |
| 5-1P1-2-E                        | 5-164-2        | GAWTS           | (X)_             | Ham                | MNA         | М        | 1201    | 1234         | 30 Mass.                     | her (seau)    | Hz          |
|                                  | <u> </u>       | VIEWED          | 1300, -          | 164 15 APRIL       | 85          |          | Q. Qu   | nea,         | CTTG (D                      | PA)           |             |
| 1-01-0-9                         | 1-02-2         | WTH             | X                | Sans               | BM3         | 240      | 173/    | 1800         | 30MIN                        | Cap (scaw)    | 101         |
| Ø1-69-1-L                        | Ø-61-2         | WTD             | Y                | Houch              | PN2         | X        | 1809    | 1917         | 1 Hz                         | Cap (serow)   | KI          |
| \$3-32-2-9                       | Ø3-33-Ø        | WTS             | X                | Two-               | RM3         |          |         |              | <del></del>                  | Cap (DCAOW)   | /e/         |
|                                  | - RE           | VIEWED          | 2000, 1          | 5 APRIL 85         | - D.        | K. Ho    | mu      | 2            | LT. (DE                      | EO) ———       | _           |
| ~~~                              |                | PURT            |                  |                    |             |          | <b></b> | <del></del>  | -                            |               |             |

#### CONTENTS OF THE DC CLOSURE LOG

- Out of Commission (OOC)
   Log
  - Listing of all DC fittings OOC
  - Prevents relogging of inoperative fitting
  - –Allows DCA to track maintenance & repairs

## DARKEN SHIP BILL

- Smoking lamp: out
- White lights: not visible (turn on red lights inside ship)
- Weather deck accesses: light locks or cutout switches installed and working
- Light lock screens: installed
- Navigation lights out

### **INFORMATION**

- Hangar decks:
  - All lighting set up for automatic operation
  - Roller curtains may be open when turning up aircraft if white lights out and fire doors closed
  - Lifelines rigged around elevator pits

## RESPONSIBILITIES - DCA

- Assigns responsibilities to divisions for maintaining and closing DOG-ZEBRA fittings
- Supervises darken ship
- Trains DCPO's in proper PMS procedures for WT doors, light ports, and light screens
- Responsible for Darken Ship Bill

# RESPONSIBILITIES - DIVISION OFFICERS

#### Ensure that:

- All DOG-ZEBRA fittings in division are closed
- -DCPO inspects fittings periodically
- Ensure darken ship reports are made to DCC/Bridge
- Paint light traps dull black
- DOG-ZEBRA fittings are stenciled

### **PROCEDURE**

- OOD calls away Darken Ship
- All DCPO's make Darken Ship reports to DCC or Bridge
- If DCC manned, desk watch ensures OOD receives report of darkened ship when all reports are received

### CLOSURE MAINTENANCE - DCA

- Responsible for training Divo's in inspection procedures
- Good topic for All Officer Training
- Responsible for training DCPO's in PMS procedures

## WATERTIGHT CLOSURES

#### • DOORS:

- WEDGES
  - CHECK TELLTALE (NO LESS THAN 1/8")
  - NO PAINT
- DOGS
  - PAPER CHECK
  - SINGLE DOG (DOG HAS TO HIT CENTER OF WEDGE)

- NUTS
  - JAM NUT (WRENCH TIGHT?
  - CRES STEEL
- HANDLE
  - ONE HAND OPERATION
  - REMAINS UPRIGHT
- PAINT
- GASKETS

## WATERTIGHT CLOSURES

#### HATCHES

- TOGGLE PINS
- HOLE ELONGATED

## • FLUSH MOUNTED SCUTTLES

- NO DIRT IN WATER
   REMOVAL TRACK &
   T WRENCH SOCKET
- CLEAR DRAIN HOLE
- T WRENCH AVAILABLE

### BALANCED NON WATERTIGHT DOORS

- SELF CLOSING
- ACCESS MAINENGINEERING SPACES
- ACCESS ESCAPETRUNKS
- DOOR CLOSING TIME
  - 10 SECONDS MAX.
- DO NOT TIE OPEN

## WATERTIGHT CLOSURES-MAINTENANCE

#### • WARPED WT DOOR:

- DOGS OUT OF ADJUSTMENT: READJUST
- CHECK DOOR FRAME W/ STRAIGHT EDGE
  - FRAME WARPED: TRY TO MAKE DOOR SEAL UNTIL ENTIRE ASSEMBLY IS REPAIRED
  - FRAME ISN'T WARPED: REPLACE PINS
- PICKING UP ON DOOR TO CLOSE:
  - WORN HINGE PINS: REPLACE PINS
  - ELONGATED HOLE IN YOKE: WELD UP AND RE-DRILL

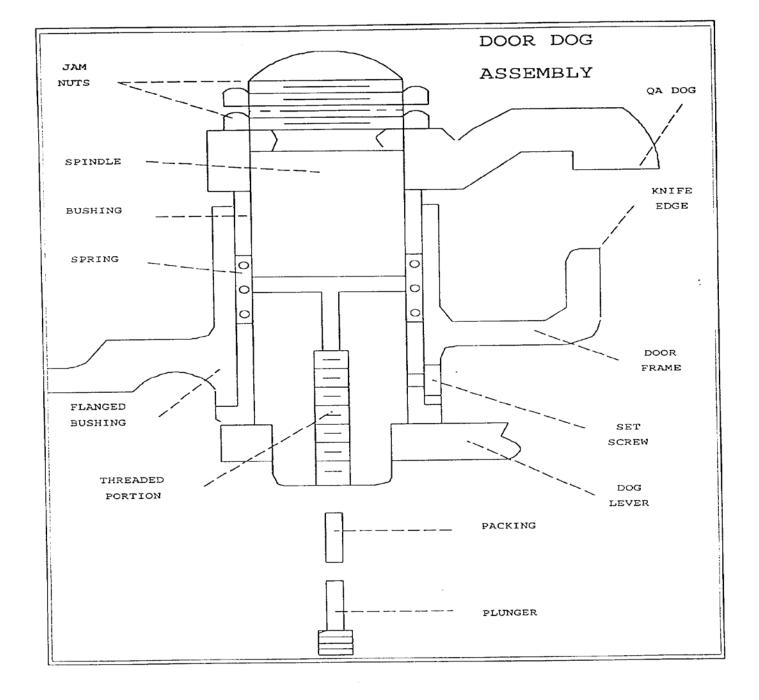
## WATERTIGHT CLOSURES-MAINTENANCE

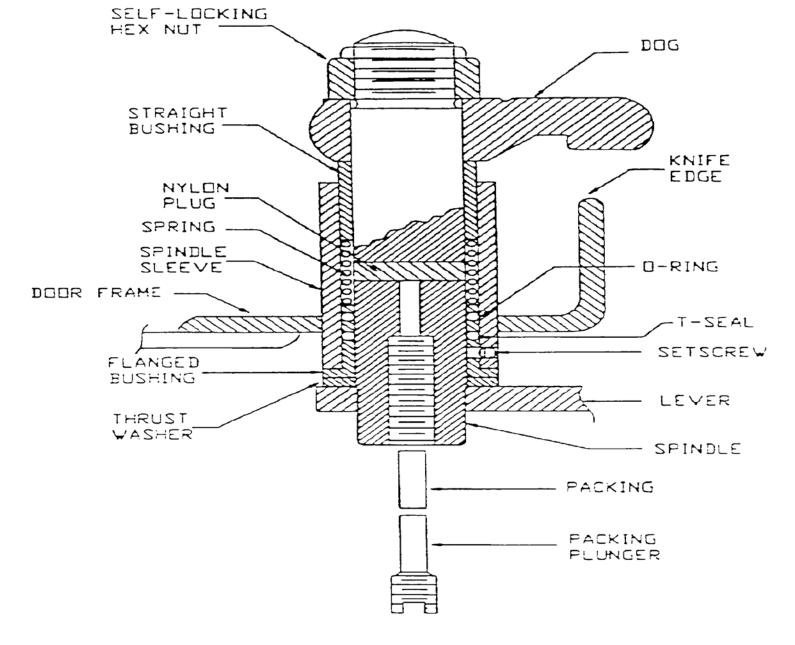
#### HANDLE FALLING IN FRONT OF DOOR:

- WORN LATCH: REPLACE LATCH
- WORN HANDLE: REPLACE HANDLE
- WORN SPINDLE: REPLACE SPINDLE

#### RUST ON BOTTOM OF DOOR:

- IMPROPER GASKET INSTALLATION: REPLACE GASKET
- IMPROPER PMS: REPAIR/REPLACE GASKET
- REMOVE RUST AND RE-PRESERVE DOOR





DOOR DOG AND LEVER ASSEMBLY (CROSS SECTIONAL VIEW)

MODIFIED BY MACHALT (ECP 444)

## REMOTE OPERATORS & CLOSURE VALVES

- ENSURE
   MAINTENANCE CAN
   BE ACCOMPLISHED
   WITHOUT
   DISRUPTING SYSTEM
- DON'T CAUSE
   FLOODING WHILE
   REPAIRING/PMS'ING
- FOLLOW PROPER TAG-OUT PROCEDURES

- REASSEMBLE ALL REMOTE OPERATORS
- CLEAN EXPOSED
   OPERATING GEAR
   MOVING PARTS
- APPLY LIGHT COAT OF LUBRICANT
- OPERATE VALVE THRU FULL RANGE

## SUMMARY: <u>MATERIAL CONDITION OF</u> <u>READINESS</u>

- 3 MAT'L CONDITIONS OF READINESS
- DC CLOSURE LOG
- DARKEN SHIP BILL

 MAINTENANCE REQUIREMENTS ON WT DOORS, HATCHES, SCUTTLES, **ELLISON DOORS, CLOSURE VALVES** AND REMOTE **OPERATORS** 

## QUESTION #1

- WHAT ARE THE TWO SECTIONS OF THE DC CLOSURE LOG?
- ANSWER
- \*VIOLATION OF MATERIAL CONDITION LOG
- 100C LOG

## QUESTION #2

- WHO IS RESPONSIBLE FOR THE DARKEN SHIP BILL?
- ANSWER:



THE

## END

