

CCGS "PIERRE RADISSON"

CCGS "DES GROSEILLIERS"

ORDER NO : 66XLQ-1-0001/01-XLQ

SCHAT-DAVIT CO LTD JOB NO 6502-3

LIFEBOAT DAVIT TYPE SPG(L) 9500/4850  
WITH ELECTRIC WINCH TYPE BE8600

## CONTENTS

|         |      |                           |
|---------|------|---------------------------|
| SECTION | I    | TECHNICAL DATA            |
|         | II   | OPERATING INSTRUCTIONS    |
|         | III  | GENERAL MAINTENANCE       |
|         | IV   | FALLS & WIRES             |
|         | V    | FAULT FINDING             |
|         | VI   | WINCH MAINTENANCE         |
|         | VII  | ELECTRICAL EQUIPMENT      |
|         | VIII | LUBRICATION CHART         |
|         | IX   | SPARES LIST               |
|         | X    | DRAWING INDEX             |
|         | XI   | INSTALLATION INSTRUCTIONS |

SCHAT-DAVIT COMPANY LTD

USE AND MAINTENANCE INSTRUCTIONS

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SECTION I

TECHNICAL DATA & TEST CERTIFICATES

## DAVITS FITTED WITH SPRING ASSISTER

### TECHNICAL DESCRIPTION & DATA

The spring assisted davits swing the combined weight of arm and boat out past the arm pivot. Gravity then takes over the swinging out and subsequent lowering of the boat.

The swinging out of the davit arms and the lowering are both controlled by a winch with a handbrake, of the 'deadman' type and also a centrifugal brake which imposes a predetermined speed of lowering.

There are a number of distinct types of Schat Gravity Davits each designed to give the maximum efficiency and to occupy the minimum of deck space under particular boat stowage conditions.

### WINCHES

In Schat Winches all gearing is totally enclosed and runs in an oil bath. Brake mechanisms are completely enclosed in watertight casing. Thus, all the moving parts are protected from icing up, corrosion etc and the winch is kept in free running state under the most adverse conditions. Where the boat weight and other factors permit the winch is mounted on the davit track to give the added advantage of maximum clear deck space.

### HOISTING

By fixed electric motor.

### OPERATION

The operation of the Schat Gravity Davit is extremely simple, but as in handling of all heavy weights, there are precautions to be observed and crews should be trained in the procedures detailed in this booklet.

"The davits and winches are constructed in compliance with IMO 83 Chapter III.

Regulation 48 Parts 1 to 1.11 and 2 to 2.10 inclusive.

Also Regulations 22 and 28."

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TEST LOAD DATA AND PROCEDURE

1. SPECIFICATION

Davit Type : SPG(L) 9500/4850

Boat Type : TELB LIFEBOAT Size : L 8.5M x B 2.75M x D 2.35M

WB = Weight of Empty Boat + Equipment = 4835 kg

WL = Weight for Launching Boat = 9335 kg

WT = Total Davit Load (per set) = 9335 kg

2. BOAT DAVIT TESTS (PER SET)

Safe Working Load Per Davit = 9500 kg. Aft Arm = 5000 kg. Fwd Arm = 4500 kg

| TEST                          | LOAD                                | CONDITION  |
|-------------------------------|-------------------------------------|--|
| Static                        | $SWL \times 2.2 = 11000 \text{ kg}$ | Simulated $20^{\circ}$ low side list + $10^{\circ}$ trim |
| Hook                          | $\frac{WL \times 2.2}{2} =$         | N/A  |
| Lower Block & Suspension Link | $SWL \times 2.2 =$                  | Straight pull  |

3. BOAT WINCH TEST

Winch Type : BE8600

Safe Working Load = 8600 kg

WP = Maximum load on winch, pulling in (from calc. dia) = 5700 kg

| TEST                      | LOAD                                | CONDITION                             |
|---------------------------|-------------------------------------|---------------------------------------|
| Static                    | $SWL \times 1.5 = 11700 \text{ kg}$ | Straight pull                         |
| Hoisting Electric Winches | WP = 5700 kg                        |                                       |
| Lowering Speed            | $\frac{WT}{2} = 4667.5 \text{ kg}$  | To be between 70/100 M/Min off barrel |

## SECTION II

### OPERATING INSTRUCTIONS

OPERATION FOR DAVITS SERVED BY WINCH FITTED WITH FIXED ELECTRIC MOTOR

DAVITS WITH SIMPLIFIED CATAPULT RELEASE GEAR

TO LOWER

1. Ensure that the handbrake is in the full 'ON' position, that the maintenance locking bars\* are not left in and that the crankhandle is not on the winch spindle otherwise injury may be caused.
2. Release the slip link between stools, Item 6 SK 657.
3. Embark all personnel.
4. Raise the brake lever by pulling on the remote wire until the brake opens.
5. Maintain hold on remote wire to continue lowering. Lowering can be halted at any stage by releasing hold on wire.

NB : Whilst lowering ensure that control wire remains inside craft.

6. The lifeboat can now be lowered directly to the water where once waterborne the lifeboat lifting hook can be operated to release the lifeboat from the davit falls. The control wire will pull thro' canopy roof as boat is manoeuvred clear of ship.

TO HOIST

1. Ensure that the handbrake is in the full 'ON' position.
2. Check limit switches to ensure that they will cut off the power supply when operated by the striker on the davit arm.
3. Close isolator switch on starter panel.
4. Press start button on starter panel.
5. Be prepared for the increase in load when the lower blocks meet the stops in the davit heads.
6. Stop the motor when the davit arms are approximately 150mm from the full inboard position and open mains isolator switch.

- \* Maintenance locking bars are not part of davit system; these would be part of the deck maintenance crews equipment.

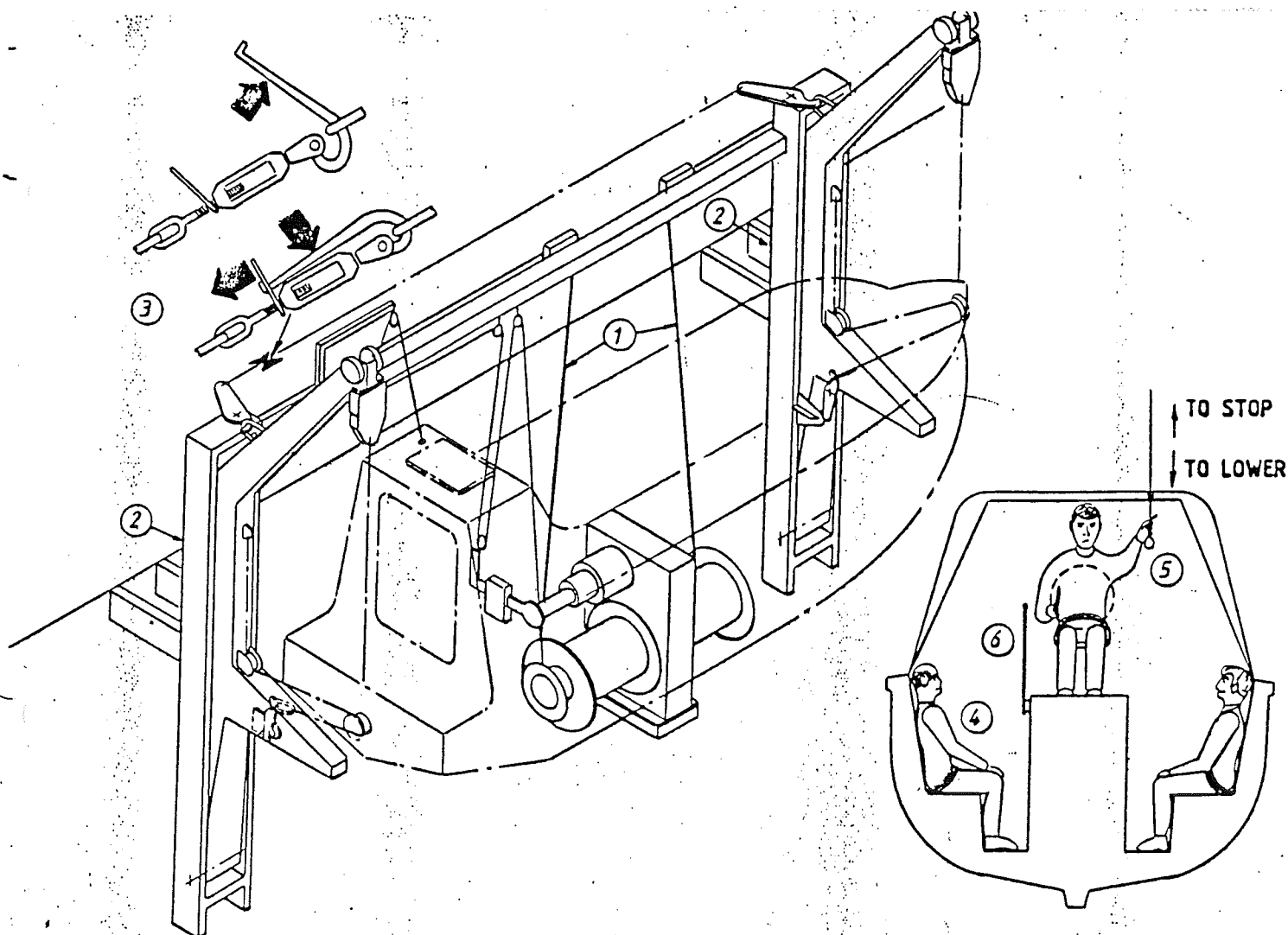
These bars must only be used during overhaul of the davits and winches and at no other time must be left in place, particularly when ship is at sea.

7. House the davit arms by the crankhandle on the winch.
8. Connect up the slip links between stools and fully tighten the gripe wires around boat.
9. Remove the crankhandle from the spindle.
10. When the boat is fully griped and the spanwire tightened, release the brake to take the strain off the falls, then apply it again and ensure that it is left in the full 'ON' position.

The limit switches should be adjusted to cut out the motor when the davit arms near the full inboard position. The limit switches are fitted only as a precautionary measure to prevent straining of the installation by overhoisting.

The previous instructions comply with IMO 83 Chapter III Regulations 13, 14, 15 and 16.





- ① Ensure there is no slack in falls prior to launching boat by handcranking winch in noist direction. Remove handle after use
- ② Ensure that maintenance locking pins have not been left in place; if so remove
- ③ Release davit arm securing wire by rotating lever as shown
- ④ Ensure that all survivors are on board and properly seated. Ensure that boat covers are closed and fastened.
- ⑤ HELMSMAN pulls on brake release wire untill holding brake on winch opens; maintain pull on wire and boat will continue to lower, automatically releasing boat gripes and then continuing under control of centrifugal brakes untill waterborne  
NOTE lowering may be stopped by releasing pull on wire then restarted by again pulling on wire. At no time during lowering must the wire be allowed to leave the lifeboat
- ⑥ HELMSMAN operates hook release in boat and manouvers boat clear of ship

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IMO 83 CHAPTER III REGULATION 51

TRAINING MANUAL CONCERNING OPERATION OF GRAVITY DAVITS

51.3 BOARDING, LAUNCHING AND CLEARING THE SURVIVAL CRAFT AND RESCUE BOATS.

51.4 METHOD OF LAUNCHING FROM WITHIN THE SURVIVAL CRAFT.

The partially enclosed lifeboats are boarded with the boat in fully stowed position from a platform which locates between the davits and the muster station.

In order to pass into the boat the span wire passing across the entrance must be released via the sliplink shown on the operation poster.

When all possible survivors are properly seated and secured in the craft the helmsman will start the descent by pulling on the winch remote control wire which passes through the canopy roof adjacent to the helmsman's position. He will maintain the pull on the wire until the boat is waterborne unless circumstances demand that the descent be stopped. This can be done by releasing his hold on the wire, but under no circumstances must he allow the wire to pass out of the boat and beyond his reach. To restart the descent simply pull on the wire again.

Once waterborne the boat is released from the falls. For this operation consult the boat manufacturer's instructions.

51.13 RECOVERY OF SURVIVAL CRAFT INCLUDING STOWAGE AND SECURING.

The davit is designed to recover the empty boat loaded with its full equipment together with two crew from the water straight into the stowed position during favourable weather conditions, but this operation must be carried out under the supervision of experienced seamen.

The hoisting and stowage procedure should be followed exactly as stated in Section II of the Instruction Manual.

## SECTION III

### GENERAL MAINTENANCE

## NOTE

When re-reeving or overhauling winch or davits the slip links should be lashed and the overhaul safety bars inserted.

Trackways must not be used as convenient places for storing loose gear, nor must projecting parts of the equipment be used for securing lines etc.

## LUBRICATION

Gravity davits are mechanical devices. Like other machines if they are to retain their efficiency they must be regularly lubricated and inspected. All grease points on davits and winch, as shown on the lubrication diagram, should be lubricated by a grease gun not less frequently than every six weeks. To facilitate location of grease points, it is an advantage to paint a small ring in contrasting colour around each. The winch gearcase oil level should be frequently checked. Other points calling for special attention are mentioned later.

Suitable grades of recommended lubricants are listed in Section VIII.

## PAINTING

Careless painting is the most frequent source of trouble with gravity davits.

WHEN PAINTING IT IS ESSENTIAL TO ENSURE THAT NO PAINT IS APPLIED TO LUBRICATING POINTS, OR TO BEARINGS OR ANY MOVING PARTS IN SUCH A WAY AS TO IMPEDE THEIR FREE MOVEMENT.

## DAVITS

1. All sheaves and rollers or pivots must be thoroughly greased and must rotate freely.
2. Grips and levers should move freely in a complete circle when the arms are in the outboard position.
3. Turnbuckles, slip hooks, lower block sheaves and swivels and all small moving parts must be free from paint and well greased.
4. Trackways of roller type davits should have one coat of paint only as delivered and kept greased with a non-drip grease.

The above instructions comply with IMO 83 Chapter III Regulation 19.

SECTION IV

FALLS & WIRES

## FALLS & WIRES

### BOAT NOS 1 & 2

1. Falls are reeved as shown on Drawing D407928 Sheet 1. A stretching screw is provided for levelling of falls should they stretch unevenly or coil incorrectly.

See SK 604/6502 for assembly.

2. Falls and wires must be inspected periodically to check condition. They will give longer service if changed end to end before showing signs of wear. To save unnecessary wear they should be kept slackened off slightly when the boat is stowed and griped.
3. Falls should be kept greased. White lead or paint must not be used as this chokes the sheaves bearings.
4. Falls must be neatly coiled on the winch barrel. Turns must not override one another, otherwise the boat will come home unevenly.
5. When renewing falls the correct size, construction, breaking strain and length should be ascertained.
6. If boats are light alloy or glass fibre, gripe wires should be served with proofed canvas or plastic where in contact with the hull otherwise the hull will corrode or wear.
7. Gripe release wires must be kept under tension between the levers.

### NOTE

IMO Chapter III Regulation 19 Maintenance of Falls states "Falls used in launching shall be turned end for end at intervals of not more than 30 months and be renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is the earlier".

The instructions comply with IMO 83 Chapter III Regulation 19.

## SECTION V

### FAULT FINDING

## INSTRUCTIONS FOR LOGICAL TRACING OF FAULTS

### DAVIT DOES NOT RUN OUT WHEN BRAKE LEVER IS LIFTED

1. Check that maintenance locking bars\* are not in place and preventing davit moving out.
2. Check that gripe wires have been released.
3. If davit is still reluctant to run out, insert safety locking bars and check free running of winch in lowering direction. Normally a pull of approximately 250 lbs is sufficient when applied to the falls with brake lever lifted.
4. If winch is free running, davit must be stuck fast with paint on sheave pins and trackway.

These must be free of paint and greased.

5. If davits have sustained any damage by weather, cargo handling etc misalignment of various points may be the cause. In this case davit manufacturer should be contacted.

### BOAT LOWERS TOO QUICKLY

1. Dismantle centrifugal brake housing and check that there is no grease or oil on Ferodo brake shoes.

Clean if necessary or renew. (See maintenance section for details).

2. Check that Ferodo is not worn down to shoe material. Renew if necessary.

### BOAT LOWERS TOO SLOWLY

1. Check free running of sheaves and winch.

- \* Maintenance locking bars are not part of davit system. These would be part of the deck maintenance crews equipment.

These bars must only be used during overhaul of the davits and winches and at no other time must they be left in position, particularly when ship is at sea.



## BRAKE OR CLUTCH FAILS TO HOLD BOAT

To check clutch :

1. Rotate hand pay-off wheel (Shaft 5 Drawing D406761) in lowering direction. With brake lever lifted this is possible but with lever in down position the sprag clutch should resist movement in lowering direction. Check clutch. If inner or outer race is badly indented renew clutch.
2. Check Ferodo plate brake (Item P D406700D) for grease or oil. Clean or renew. Check for wear, renew if necessary.

## WINCH NOT FREE RUNNING

1. Check that oil in gearcase is of correct viscosity and level.
2. Check gear teeth for breakages and gearcase for foreign matter.
3. Check bearings for collapse and bearings and shafts for rust and corrosion. (This should not occur with correct periodic maintenance).
4. Check that sprag clutch cage has not broken and jammed clutch mechanism. (This is a very unlikely occurrence).

## SECTION VI

### WINCH MAINTENANCE

## WINCH MAINTENANCE INSTRUCTIONS BE8600

### REFERENCE DRAWINGS :

SECTIONAL DRAWINGS D406761 PART I  
SECTIONAL DRAWING D407932 PART II

GENERAL ARRANGEMENT MK 'XL' M902473 - BOAT NO 1

BRAKE UNIT D406700D

### LUBRICATION

The gearcase must be kept filled to correct level with non-freezing oil, see Lubrication Chart for specified type. The oil level must be checked once every six weeks by removing the oil level plug. If oil level is below this hole then extra oil must be added via the oil filler plug situated in the top cover until the correct level is obtained. Ensure oil plugs are fully tightened after use.

Grease nipples should not be painted and should preferably be ringed round in red paint. Two nipples are situated in the threaded sleeve outer (Item J on D406700D). These nipples should receive a single pump of grease once every six weeks. Excessive greasing is not necessary on the brake unit as an excess of grease can eventually force its way past seal Item 9 on Drg D406700D and contaminate the Ferodo linings in the brake housing.

The roller clutch is assembled and filled with oil in the factory. Level may be checked by removing the lower of the two plugs (Item 24 D406700D). If oil is required remove top plug, ensure there is no ingress of foreign matter during filling.

### BRAKE LININGS

The brake lining is secured to the brake carrier (Item D D406700D) by 12 M6 countersunk screws which have the screw heads sunk below the surface of the lining. The lining should be inspected annually and if lining has been worn down to within 1mm of the screw heads, it should be replaced. Never let the lining wear down to the screw heads as this will cause damage to the steel plate half of the clutch with subsequent rapid wear of the Ferodo lining.

## GENERAL NOTES

1. When in good order the winch should overrun after the boat is waterborne so as to give slack; if not check free running of bearings etc.
2. When lowering, the centrifugal brake housing will heat up owing to the action of the governing brake. So long as this is not accompanied by an increase in the controlled lowering speed, this may be ignored. During tests or drill the brake should be allowed to cool before lowering again.
3. If winch covers are removed for inspection, water tightness must be ensured on reassembly.
4. Ensure that the weighted 'deadman' brake lever always engages the brake under its own momentum.

SECTION VII

ELECTRICAL EQUIPMENT

SCHAT-DAVIT COMPANY LTD

HOISTING EQUIPMENT

BOAT WINCH - BOAT NO 1

1) FIXED ELECTRIC MOTOR

|             |   |                      |
|-------------|---|----------------------|
| MAKERS      | : |                      |
| FRAME SIZE  | : | XVF 160 M04          |
| VOLTAGE     | : | 460 - FULL LOAD AMPS |
| PHASE/CYCLE | : | 3/60                 |
| KW/RPM      | : | 10/1800              |
| ENCLOSURE   | : | IP56 FANLESS         |
| WINDING     | : | HT/LC SQUIRREL CAGE  |
| HEATER      | : | 120V SINGLE PHASE    |

2) STARTER

|            |   |                                       |
|------------|---|---------------------------------------|
| MAKERS     | : | ACME ELECTRICAL MFG CO LTD            |
| TYPE       | : | IP44                                  |
| VOLTAGE    | : | 440/3/60                              |
| HEATER     | : | 120V SINGLE PHASE                     |
| PUSHBUTTON | : | REMOTE TWO POINT DECK WATERTIGHT IP66 |

SECTION VIII

LUBRICATION CHART

| EQUIPMENT   | SHELL                                | ESSO                    | B.P.                                     | TOTAL                    | CHEVRON                           | MOBIL                                 | TEXACO                   | GULF                     | CASTROL                             | LORCO                  | ROCOL  | ELIANTAR                |
|---|--------------------------------------|-------------------------|--|--------------------------|-----------------------------------|---------------------------------------|--------------------------|--------------------------|-------------------------------------|------------------------|--|-------------------------|
| WINCHES<br>GEARBOXES  | OMALA<br>100                         | SPARTAN<br>EP68         | ENERGOL<br>GR-XP<br>150                  | CARTER<br>EP 110         | GEAR<br>COMP'D<br>150             | GEAR<br>629<br>SHC<br>629             | MEROPA<br>150            | E.P.<br>HD 150           | ALPHA<br>ZN 150                     | HT 100                 |  | EPONA<br>Z 100<br>OR 68 |
|   | MELINA<br>30                         |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |
| GREASE POINTS<br>DAVITS-WINCH<br>ELECT/MOTORS<br>DAVIT TRACKS | ALVANIA<br>GREASE<br>R2/R3<br>OR EP2 | BEACON<br>3             | ENER -<br>GREASE<br>MM=EP2               | MULTIS<br>SPECIAL<br>3   | DURALITH<br>GREASE<br>EP2         | MOBILUX<br>2 OR<br>EP2                | MULTI<br>FAK<br>EP2      | CROWN<br>GREASE<br>Nº2   | SPHEERO<br>AP3                      | GREASE<br>LG 23        | ROCOL<br>BG 151                              | MULTI<br>SERVICE.       |
|   | CARDIUM<br>COMP'D<br>OR FLUID<br>D   |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |
| WIRE ROPES  | CARDIUM<br>COMP'D<br>OR FLUID<br>D   | SURETT<br>FLUID<br>N 5K | ENERGOL<br>WRP                           | OSYRIS<br>TP4A           | PINION<br>GREASE<br>MS<br>250 TCB | MOBIL<br>-TAC<br>A                    | CRATER<br>1X             | LUBCOTE<br>Nº 1          | RUSTILO<br>553                      | OPEN<br>GEAR<br>COMP'D | ROCOL -<br>R0105<br>OR WIRE<br>ROPE<br>SPRAY | ENGREN -<br>AGE<br>1401 |
|   |                                      |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |
| ELECTRICAL<br>OVERLOAD RELAY<br>DASH POT                      | DIALA<br>OIL B                       | NUTO<br>H15             | ENERGOL<br>JS-A                          | ISOVOL -<br>TINE         | E.P.<br>HYDRAULIC<br>LIC OIL 5    | D.T.E<br>11                           | TRANS -<br>FORMER<br>OIL | MECH -<br>ANISM<br>LP 15 | DASHPOT<br>OIL                      | TRANS<br>FORMER<br>OIL | TRANSFO -<br>RMATEUR<br>40                   |                         |
|   |                                      |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |
| THICKENING OF<br>DASH POT OIL<br>IF NECESSARY                 | TALPA<br>OIL 40                      | NUTO<br>H68             | ENERGOL<br>HLP68<br>BARTRAN<br>HV68      | CORTIS<br>100            | MARINE<br>OIL<br>R&O 65           | D.T.E.<br>3 OR D.T.E.<br>18           | DORO<br>AR 30            | VERITAS<br>30            | MARINE<br>HEAVY                     | HT 100                 |  | MISOLA<br>H100          |
|   |                                      |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |
| HYDRAULIC<br>SYSTEMS  | TELLUS<br>37                         | NUTO<br>H 32            | ENERGOL<br>HLP 32<br>BARTRAN<br>HV 32    | AZOLLA<br>VG 32          | E.P.<br>HYD 32                    | D.T.E 13<br>OR<br>D.T.E 24<br>SHC 524 | RANDO<br>HD 32           | MECH -<br>ANISM<br>LP 32 | HYSPIN<br>AWS 32                    | HT 32                  |  | VISG A<br>32            |
|   |                                      |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |
| SPRAG-CLUTCHES  | ALVANIA<br>GREASE<br>R2/R3           | BEACON<br>3             | ENER -<br>GREASE<br>MM-EP2               | MULTIS -<br>SPECIAL<br>3 | DURALITH<br>GREASE<br>EP2         | MOBILUX<br>2<br>MOBILPLEX<br>47       | MULTI -<br>FAK<br>EP2    | CROWN<br>GREASE<br>Nº2   | SPHEERO<br>AP2                      | GREASE<br>LG 23        | ROCOL<br>MG                                  | MULTI -<br>SERVICE      |
|   |                                      |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |
| STIEBER<br>ROLLER CLUTCHES                                    | TELLUS<br>10 OR<br>C10               | NUTO<br>H10             | ENERGOL<br>HLP-10<br>ENERGOL<br>SHF-LT15 | AZOLLA<br>10             | EP<br>HYDRAULIC<br>10             | VELOCITE<br>Nº 6<br>D.T.E. 21         | RANDO<br>10<br>HD A-10   |                          | HYSPIN<br>VG-10<br>HYSPIN<br>AWS-10 |                        |  |                         |
|   |                                      |                         |  |                          |                                   |                                       |                          |                          |                                     |                        |  |                         |

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89

**SCHAT-DAVIT  
COMPANY**

**RECOMMENDED LUBRICANTS**  
EQUIVALENT GRADES BY OTHER REPUTABLE  
MAKERS ARE EQUALLY SUITABLE



## SECTION IX

## SPARES LIST



| BE8600 WINCH BRAKE UNIT                   |                       |                  |  |  |  |
|---|-----------------------|------------------|--|--|--|
| DESCRIPTION                               | DETAIL N <sup>o</sup> | No off per Winch |  |  |  |
| SECTIONAL ARRANGEMENT                     | D406700D              |                  |  |  |  |
| FREEWHEEL CLUTCH TYPE AL55                | Item 1                | 1                |  |  |  |
| BALL BEARING 6021                         | Item 2                | 1                |  |  |  |
| THRUST BEARING 51120                      | Item 3                | 1                |  |  |  |
| THRUST BEARING 51306                      | Item 4                | 1                |  |  |  |
| THRUST BEARING 51105                      | Item 5                | 1                |  |  |  |
| THRUST/NEEDLE BEARING NKIA 5910           | Item 6                | 1                |  |  |  |
| NEEDLE BEARING NK 50/25                   | Item 7                | 1                |  |  |  |
| OIL SEAL 150 180 15                       | Item 8                | 1                |  |  |  |
| OIL SEAL 85 120 12                        | Item 9                | 1                |  |  |  |
| OIL SEAL 75 100 10                        | Item 10               | 2                |  |  |  |
| DUST SEAL VA 0060                         | Item 11               | 2                |  |  |  |
| CIRCLIP 105MM EXT                         | Item 12               | 1                |  |  |  |
| OIL SEAL 50 72 8                          | Item 13               | 1                |  |  |  |
| CIRCLIP 62MM INT                          | Item 14               | 1                |  |  |  |
| PLAIN BEARING MB 2815 DU                  | Item 33               | 2                |  |  |  |
| 'O' RING RM 1145-30                       | Item 35               | 1                |  |  |  |
| DISC BRAKE LINING + SCREWS - N1000        | Item P                | 1                |  |  |  |
| CENTRIFUGAL BRAKE LINING + SCREWS - N1001 | Item S                | 6                |  |  |  |
| BRAKE SHOE SPRING. - N1002                | Item T                | 6                |  |  |  |
| GREASE NIPPLE M10 x 1 'TAT'               | Item 32               | 2                |  |  |  |
|   |                       |                  |  |  |  |
|   |                       |                  |  |  |  |
|   |                       |                  |  |  |  |
|   |                       |                  |  |  |  |





SECTION X

DRAWING LIST

| <u>DRAWING NO</u> | <u>DESCRIPTION</u>                      |
|-------------------|---|
| ✓ D407928 SHEET 1 | GENERAL ARRANGEMENT                     |
| ✓ D407928 SHEET 2 | FOUNDATIONS                             |
| ✓ D406758 A       | WINCH REMOTE CONTROL                    |
| ✓ S710267         | LIMIT SWITCH ARRANGEMENT                |
| ✓ S709758A        | LOWER BLOCK                             |
| ✓ SK 604/6502     | FALLS ASSEMBLY                          |
| ✓ SK 603A         | BOAT GRIPE WIRE - AFT                   |
| ✓ SK 696          | BOAT GRIPE WEBBING - FWD                |
| ✓ SK 657          | ARM GRIPES                              |
| ✓ M900867A        | SUSPENSION CHAIN                        |
| ✓ M902473         | WINCH GENERAL ARRANGEMENT - BOAT NO 1   |
| ✓ D407932         | WINCH SECTIONAL ARRANGEMENT - PART II   |
| ✓ D406761         | WINCH SECTIONAL ARRANGEMENT - PART I    |
| ✓ D406700D        | BRAKE SECTIONAL ARRANGEMENT             |
| ✓ S709841         | MOUNTING OF BRAKE SHOES/CLUTCH 'X' TYPE |
| ✓ S709842         | MOUNTING OF BRAKE SHOES/CLUTCH 'Y' TYPE |
| ✓ D406757         | SPRING ASSISTER                         |
| ✓ S710340         | BRAKE DISMANTLING INSTRUCTIONS          |
| ✓ SK 10957        | WIRING DIAGRAM                          |
| ✓ SK 5383 FR 2    | STARTER OUTLINE                         |
| ✓ SK 11324        | PUSHBUTTON STATION                      |
| ✓ S710267         | LIMIT SWITCH ARRANGEMENT                |
| ✓ D4171\$02       | ITG TRIPPER PART 1016                   |
| ✓ SK 5385         | WALL MOUNT TYPE STARTER                 |

CCGS PIERRE RADISSON & CCGS DES GROSEILLIERS

LIFEBOAT DAVIT TYPE SPG 9500/4850  
WITH ELECTRIC WINCH TYPE BE8600

SECTION XI

INSTALLATION INSTRUCTIONS



## INSTALLATION INSTRUCTIONS

SPG(L) 9500/4850

### DAVIT STRUCTURE

#### 1.0

- 1.1 Refer to Drawing D407928 Sheets 1 and 2.
- 1.2 Davit stools positioned on prepared deck foundations provided by shipyard. Foundations to be level to mean operating waterline. Height of each stool foundation equal but staggered by sheer of deck.
- 1.3 After each stool correctly lined up parallel to each other and correct distance inboard, tack weld to foundations.
- 1.4 Lower davit arms into stools, fit pivot pins and secure with locking plates.  
Check distance between davit head centres to ensure parallel running out of arms ie must be same as stool centres.
- 1.5 With stools correctly aligned fully weld to foundations.
- 1.6 Place deck sheave unit on forward inboard foundation in position indicated on D406753 Sheet 2. Tack weld.

### DAVIT FITTINGS & REEVING

#### 2.0

- 2.1 Fit arm release levers, gripe levers, remote control arms and control sheaves - refer to Drgs D407928 Sheet 1, D406758, S710263 & S710264.
- 2.2 Hang lower blocks on davit head hooks and reeve wire falls through system - refer to Drgs D407928 Sheet 1 & SK 604/6502.
- 2.3 Reeve remote control wires through system - refer to D406758.
- 2.4 Bolt on limit switch - refer to S710267.
- 2.5 Fit suspension chains to lower blocks.

### WINCH

#### 3.0

- 3.1 Bolt winch to foundation base plate.
- 3.2 Position pushbutton box near deck edge in position convenient for operator to view boat lowering.

- 3.3 Fit starter in undercover location, wire up starter, motor, push-button box and limit switches.
- 3.4 When power is available, check motor is connected for correct rotation. Trying to run motor in other direction against the free-wheel clutch can damage clutch. A flick on pushbutton is sufficient to check if motor is running or being blocked by holding rotation of clutch.
- 3.5 Check limit switches and stop button cut off power to motor.
- 3.6 Run wire falls on to drums evenly and adjust any out of alignment by rope clamps of falls stretching screw.
- 3.7 Rotate davit arms inboard, stopping before stowed position to set limit switch cut-off position and finally stowing last part by crank-handle.

#### FITTING BOAT

- 4.0
- 4.1 Fit temporary locking bars (see also Operating Manual).
- 4.2 Hang boat on suspension chains, make sure that boat hooks are correctly closed at both ends of boat.
- 4.3 Position and weld forward and aft boat chock brackets.
- 4.4 With boat plumb in davits, fit wood chocks with suitable soft facings against boats.

#### FITTING DAVIT RELEASE SPAN WIRE & GRIPES

- 5.0
- 5.1 Fit span wires, Item 23 on D407928 to Item 14. Lashing to be adjusted to take up slack. This gripe wire holds davit arms in stowed position.
- 5.2 AFT  
Fit gripe wire to lug on davit arm, round bollard on end of boat, then fit end link on to gripe release lever, Item 13 on D407928. Slacken off stretching screw to fit end link on, then tighten stretching screw to pull gripes taut. These gripes hold boat against davit arm and release automatically as arm runs outboard and lever comes clear of stop bar on stool.
- 5.3 FWD  
Fit gripe webbing to davit arm lug, then round boat and fit to gripe release lever as 5.2 above.

Note that these davit arms are fitted with a spring buffer which assists turning-out of davits/boat at 20° high side list, due to the high load point contact between stool strongback and spring piston. It is essential that a layer of grease be kept between these points.