PLATE 1

BERTHING & LOCKER ARRANGEMENT (HOLD)

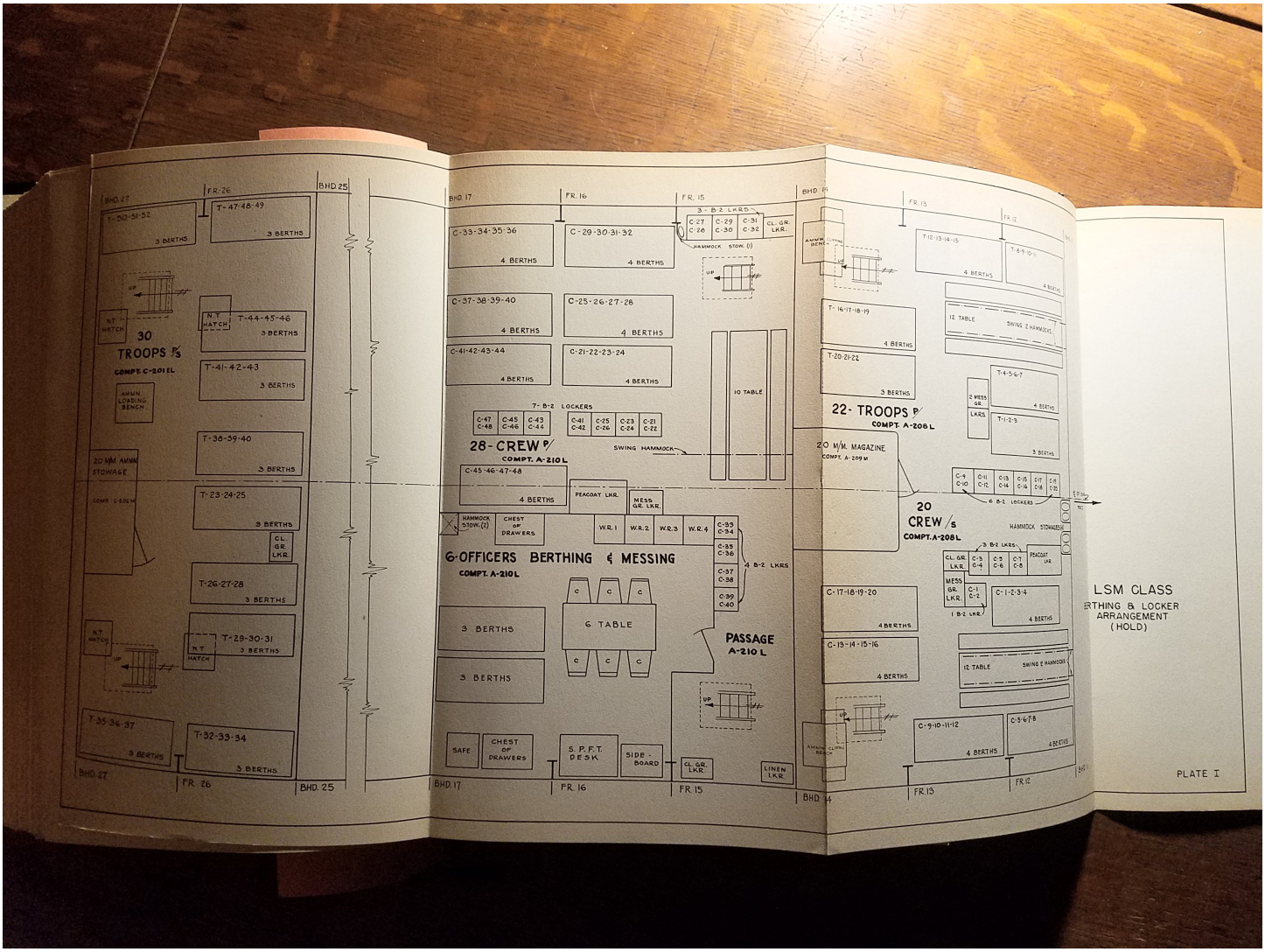
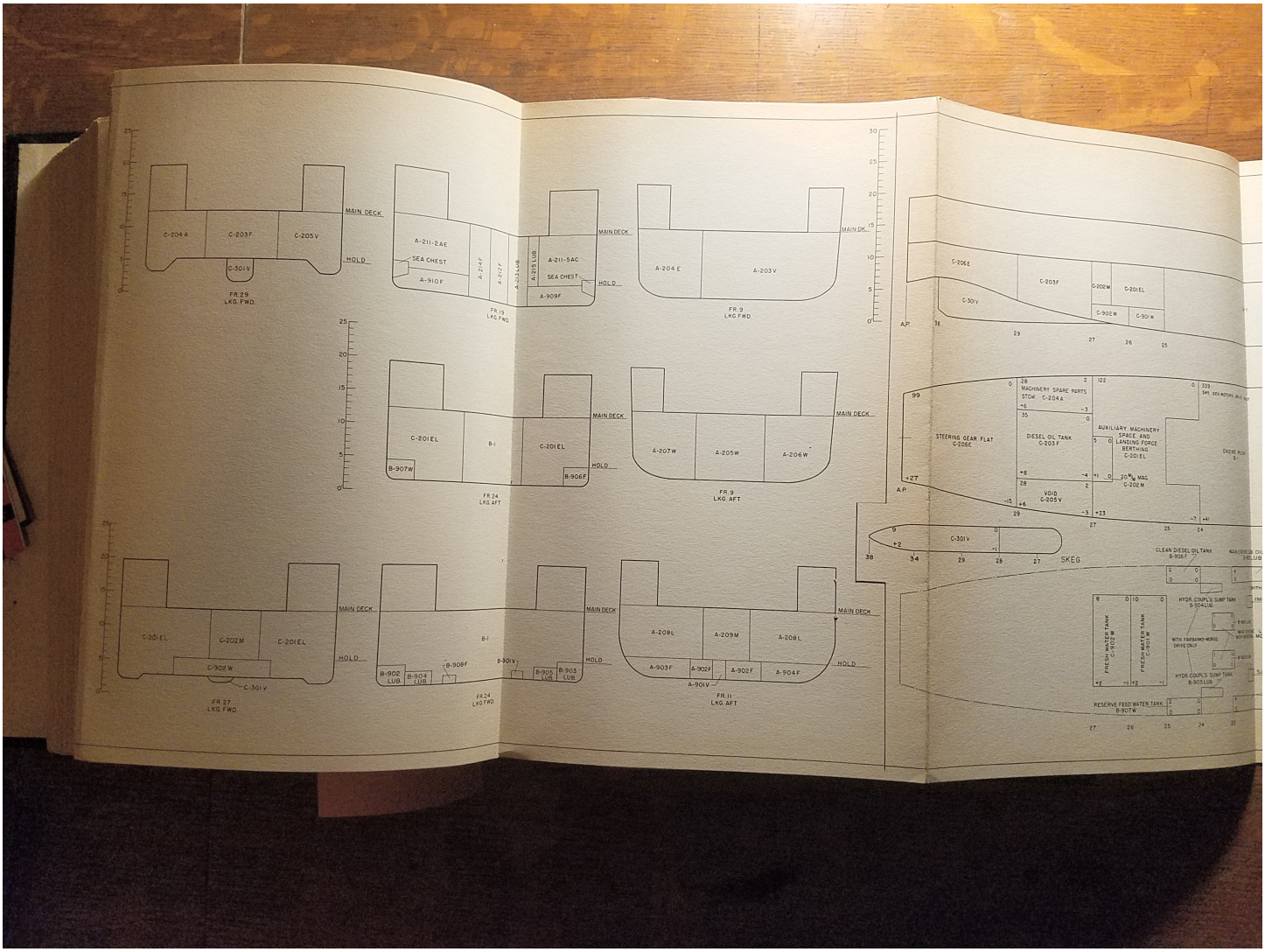
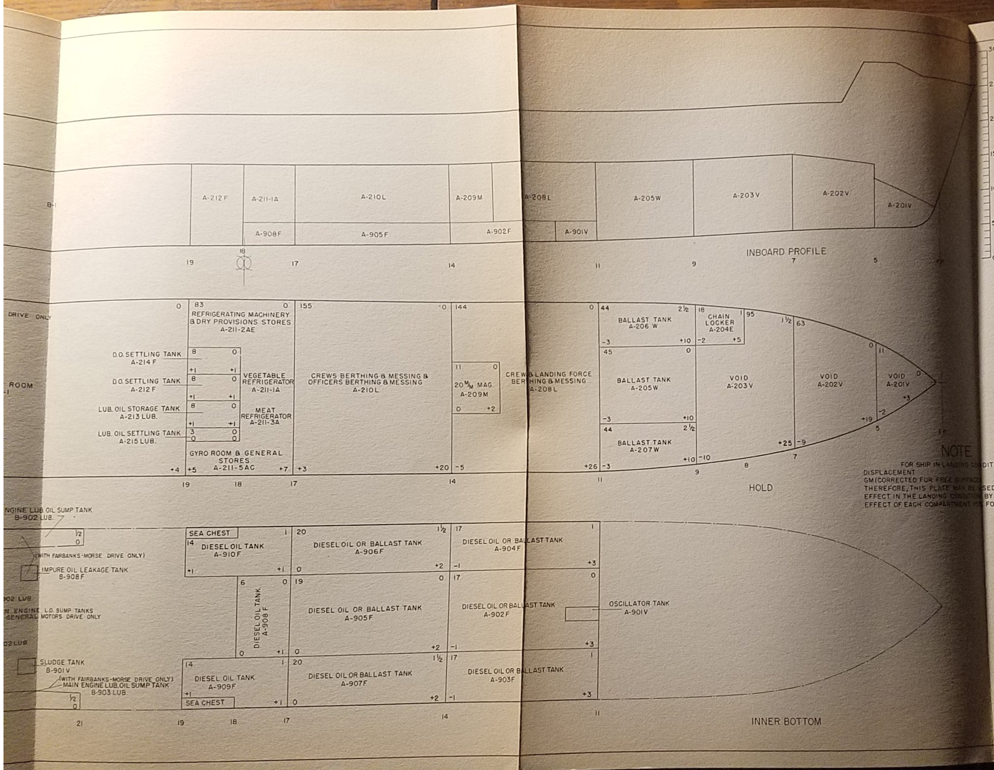

BHD. 27
FR. 26
BHD. 25
T-50-51-52
3 BERTHS
T-47-48-49
3 BERTHS
N.T. HATCH
30 TROOPS P/S
COMPT. C-201 EL
T-44-45-46
3 BERTHS
T-41-42-43
3 BERTHS
AMMN. LOADING BENCH
20 M/M AMMN STOWAGE
T-38-39-40
3 BERTHS
T-23-24-25
3 BERTHS
CL. GR. LKR.
T-26-27-28
3 BERTHS
T-29-30-31
3 BERTHS
T-35-36-37
3 BERTHS
T-32-33-34
3 BERTHS
BHD. 17
FR. 16
FR. 15
3 - B-2 LKRS.
C-27 C-28
C-29 C-30
C-31 C-32
CL. GR. LKR.
HAMMOCK STOW. (1)
C-33-34-35-36
4 BERTHS
C-29-30-31-32
4 BERTHS
C-37-38-39-40
4 BERTHS
C-25-26-27-28
4 BERTHS
C-41-42-43-44
4 BERTHS
C-21-22-23-24
4 BERTHS
10 TABLE
7- B-2 LOCKERS
C-47 C-48
C-45 C-46
C-43 C-44
C-41 C-42
C-25 C-26
C-23 C-24
C-21 C-22
28 - CREW P/S
COMPT. A-210 L
SWING HAMMOCK
C-45-46-47-48
4 BERTHS
PEACOAT LKR.
MESS GR. LKR.
HAMMOCK STOW. (2)
CHEST OF DRAWERS
W.R. 1
W.R. 2
W.R. 3
W.R. 4
C-33 C-34
C-35 C-36
C-37 C-38
C-39 C-40
4 B-2 LKRS
6 - OFFICERS BERTHING & MESSING
COMPT. A-210 L
6 TABLE
3 BERTHS
3 BERTHS
PASSAGE A-210 L
SAFE
CHEST OF DRAWERS
S.P.F.T. DESK
SIDE - BOARD
CL. GR. LKR.
LINEN LKR.
BHD. 14
FR. 13
FR. 12
AMMN. CLIMBING BENCH
T-12-13-14-15
4 BERTHS
T-8-9-10-11
4 BERTHS
12 TABLE
SWING 2 HAMMOCKS
T-16-17-18-19
4 BERTHS
T-20-21-22
3 BERTHS
22 - TROOPS P/S
COMPT. A-208 L
2 MESS GR. LKRS.
T-4-5-6-7
4 BERTHS
T-1-2-3
3 BERTHS
20 M/M. MAGAZINE
COMPT. A-209 M
C-9 C-10
C-11 C-12
C-13 C-14
C-15 C-16
C-17 C-18
C-19 C-20
6 B-2 LOCKERS
20 CREW P/S
COMPT. A-208 L
HAMMOCK STOWAGE
3 B-2 LKRS.
CL. GR. LKR.
C-3 C-4
C-5 C-6
C-7 C-8
PEACOAT LKR.
MESS GR. LKR.
C-1 C-2
1 B-2 LKR.
C-1-2-3-4
4 BERTHS
C-17-18-19-20
4 BERTHS
C-13-14-15-16
4 BERTHS
12 TABLE
SWING 6 HAMMOCKS
C-9-10-11-12
4 BERTHS
C-5-6-7-8
4 BERTHS
LSM CLASS
BERTHING & LOCKER ARRANGEMENT (HOLD)
PLATE I

PLATE II

FLOODING EFFECT DIAGRAM


C-204A
C-203F
C-205V
C-301V
MAIN DECK
HOLD
FR 29
LKG FWD
A-211-2AE
SEA CHEST
A-910F
A-214F
A-211F
A-213 LUB
A-215 LUB
A-211-5AC
SEA CHEST
A-909F
FR 19
LKG FWD
A-204E
A-203V
FR 9
LKG FWD
C-206E
C-203F
C-202M
C-201EL
C-30V
C-902W
C-901W
A.P.
C-201EL
B-I
C-201EL
B-907W
B-906F
FR 14
LKG AFT
A-207W
A-205W
A-206W
FR 9
LKG AFT
MACHINERY SPARE PARTS STOW C-204A
STEERING GEAR FLAT C-206E
DIESEL OIL TANK C-203F
AUXILIARY MACHINERY SPACE AND LANDING FORCE BERTHING C-201EL
20 KW MAG C-202M
VOID C-205V
C-301V
SKEG
CLEAN DIESEL OIL TANK B-906F
HYDR COUPLG SUMP TANK B-904 LUB
FRESH WATER TANK C-902W
FRESH WATER TANK C-901W
WITH FAIRBANKS-MORSE DRIVE ONLY
HYDR COUPLG SUMP TANK B-903 LUB
RESERVE FEED WATER TANK B-907W
C-301EL
C-202M
C-201EL
C-902W
C-301V
FR 27
LKG FWD
B-I
B-902 LUB
B-904 LUB
B-908F
B-901V
B-905 LUB
B-903 LUB
FR 24
LKG FWD
A-208L
A-209M
A-208L
A-903F
A-902F
A-902F
A-904F
A-901V
FR 11
LKG AFT



NOTE

FOR SHIP IN LANDING CONDITION

DISPLACEMENT 733.7 TONS
GM (CORRECTED FOR FREE SURFACE) 11.2 FT.
THEREFORE, THIS PLATE MAY BE USED FOR FLOODING EFFECT IN THE LANDING CONDITION BY INCREASING THE EFFECT OF EACH COMPARTMENT 15% FOR LIST & 1% FOR TRIM.

PLA

FLOODING EFFECT DIAGRAM

LSM CLASS

NOTE

ALL DATA ARE FOR COMPARTMENTS COMPLETELY FULL OF SEA WATER
PERMEABILTY FACTORS ASSUMED ARE—
MACHINERY SPACES 85%
ALL OTHER SPACES 95%

ALLOWANCE SHOULD BE MADE FOR PORTABLE ARTICLES SUCH AS STORES IN STORE ROOMS, AMMUNITION IN MAGAZINES, ETC.
CAPACITIES ARE GIVEN TO THE NEAREST TON, LISTS TO THE NEAREST HALF DEGREE, & CHANGES OF DRAFT TO THE NEAREST INCH.

OCEAN CONDITION

DISPLACEMENT	912.3 TONS
MEAN DRAFT (TO MBL)	8.2 FT.
CENTER OF FLOTATION	4.17 AFT ℄
GM (CORRECTED FOR FREE SURFACE)	10.34 FT.
TONS PER INCH IMMERSION	14.31 TONS
MOMENT TO ALTER TRIM ONE INCH	198.3 FT. TONS
MOMENT TO HEEL ONE DEGREE	164.6 FT. TONS
BEAM	34 FT.

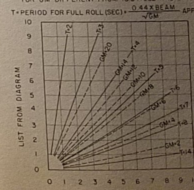
EXAMPLE

CORRECTING LIST & TRIM BY COUNTER FLOODING

ITEM	CAPACITY IN TONS	LIST°	CHANGE IN DRAFT AFT"	CHANGE IN DRAFT FWD"
DAMAGE C-205V	28	2 S	+6	-3
C-203F	35	0	+8	-4
TOTAL	63	2 S	+14	-7
CORRECTION FLOOD A-906F	20	1½ P	0	+2
FLOOD A-205W	45	0	-3	+10
FLOOD A-902F	17	0	-1	+3
TOTAL	82	1½ P	-4	+15
CONDITION AFTER CORRECTION		½ S	+10	+8

FOR GM DIFFERENT FROM 10.34' USE THIS GRAPH

$$T = \text{PERIOD FOR FULL ROLL (SEC)} = \frac{0.44 \times \text{BEAM}}{\sqrt{GM}} \text{ APPROX.}$$



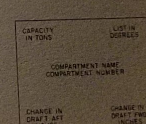


PLATE IIIA

COMPARTMENTATION & WATERTIGHT INTEGRITY

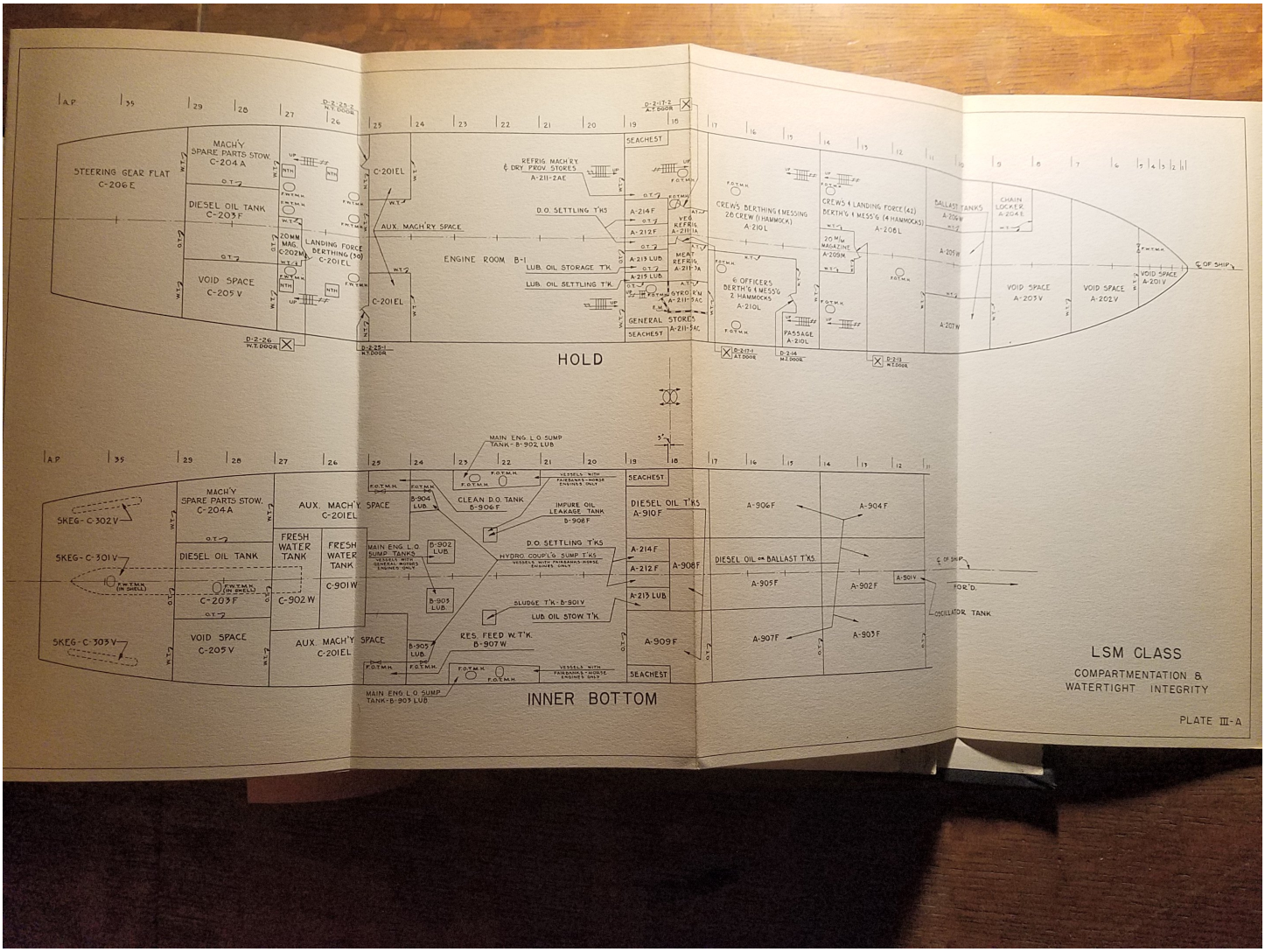

HOLD
INNER BOTTOM
STEERING GEAR FLAT C-206E
MACH'Y SPARE PARTS STOW. C-204A
DIESEL OIL TANK C-203F
VOID SPACE C-205V
AUX. MACH'RY SPACE
ENGINE ROOM B-1
LUB. OIL STORAGE T'K.
LUB. OIL SETTLING T'K.
D.O. SETTLING T'KS
REFRIG MACH'RY & DRY PROV. STORES A-211-2AE
SEACHEST
GENERAL STORES A-211-5AC
MEAT REFRIG. A-211-3A
VEG. REFRIG. A-211-1A
GYRO R'M A-211-5AC
CREWS BERTHING & MESSING 26 CREW (1 HAMMOCK) A-210L
6 OFFICERS BERTH'G & MESS'G 2 HAMMOCKS A-210L
PASSAGE A-210L
CREWS & LANDING FORCE (42) BERTH'G & MESS'G (4 HANMOCKS) A-208L
20 MM MAGAZINE A-209M
BALLAST TANKS A-206W
CHAIN LOCKER A-204E
VOID SPACE A-203V
VOID SPACE A-202V
VOID SPACE A-201V
℄ OF SHIP
20MM MAG. C-202M
LANDING FORCE BERTHING (30) C-201EL
AUX. MACH'Y SPACE C-201EL
SKEG-C-302V
SKEG-C-301V
SKEG-C-303V
FRESH WATER TANK C-902W
FRESH WATER TANK C-901W
MAIN ENG. L.O SUMP TANKS
CLEAN D.O. TANK B-906F
IMPURE OIL LEAKAGE TANK B-908F
HYDRO. COUPL'G SUMP T'KS
SLUDGE T'K-B-901V
LUB OIL STOW T'K.
RES. FEED W.T'K. B-907W
MAIN ENG. L.O SUMP TANK-B-902 LUB
MAIN ENG. L.O SUMP TANK-B-903 LUB
B-904 LUB.
B-902 LUB.
B-903 LUB.
DIESEL OIL T'KS A-910F
A-214F
A-212F
A-213 LUB
A-908F
A-909F
A-906F
A-904F
A-905F
A-902F
A-907F
A-903F
A-901V
DIESEL OIL & BALLAST T'KS
FOR'D.
OSCILLATOR TANK
LSM CLASS
COMPARTMENTATION & WATERTIGHT INTEGRITY
PLATE III-A

PLATE III-B

COMPARTMENTATION & WATERTIGHT INTEGRITY

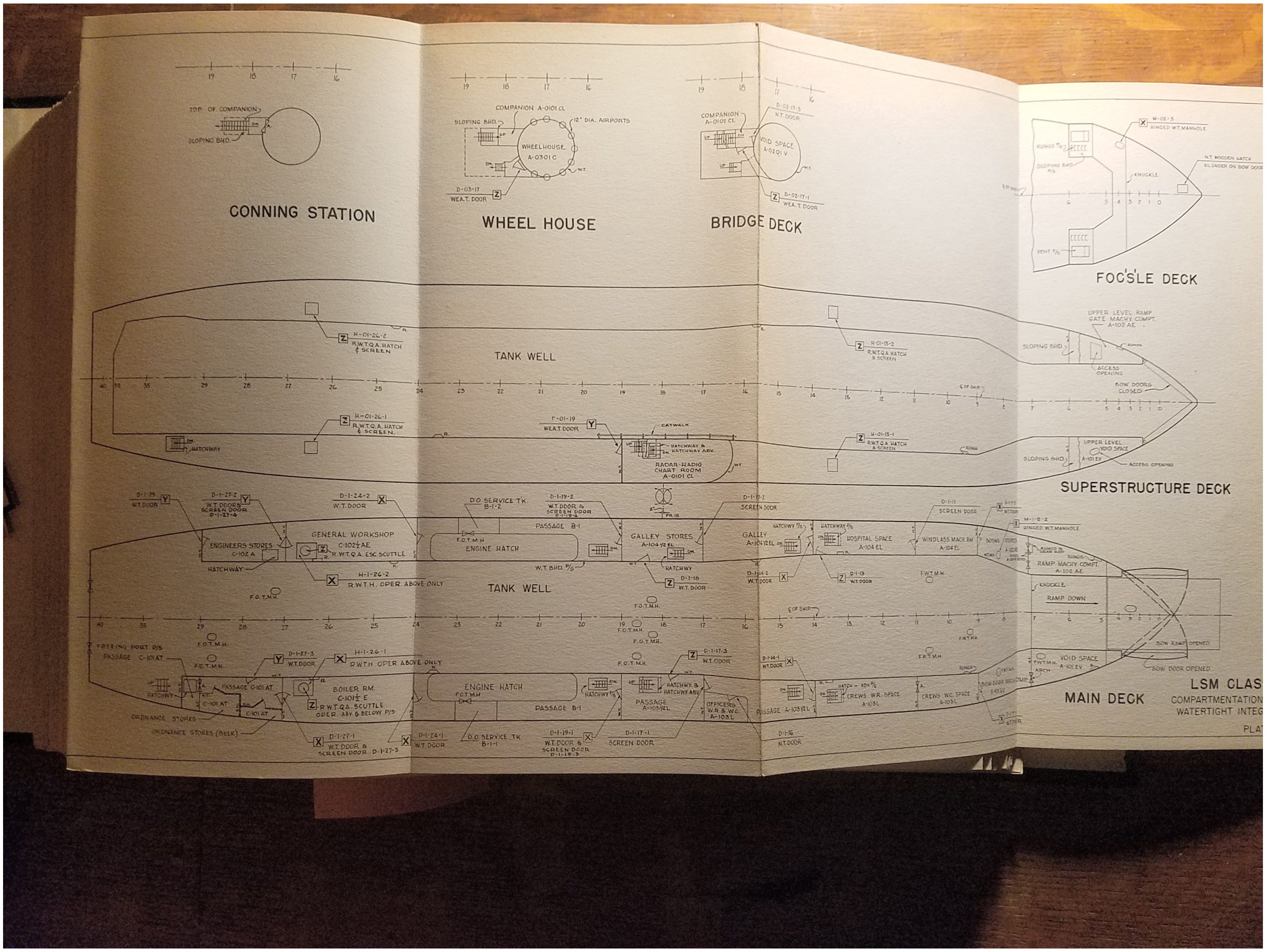
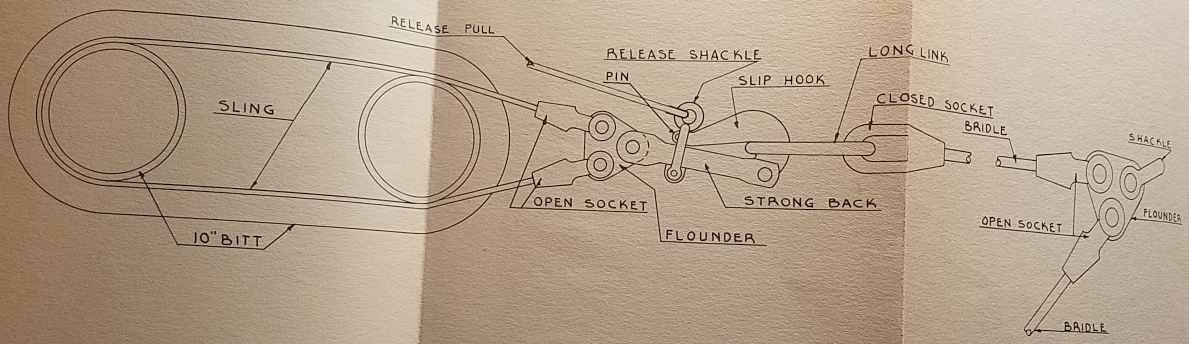

CONNING STATION
WHEEL HOUSE
BRIDGE DECK
FOC'S'LE DECK
TANK WELL
SUPERSTRUCTURE DECK
GENERAL WORKSHOP
ENGINE HATCH
GALLEY STORES
GALLEY
HOSPITAL SPACE
BOILER RM.
PASSAGE B-1
RAMP DOWN
VOID SPACE
MAIN DECK
LSM CLAS
COMPARTMENTATION
WATERTIGHT INTEG
PLAT

PLATE IV

TOWING GEAR ARRANGEMENT & DETAILS



SLING & SLIP HOOK ASSEMBLY

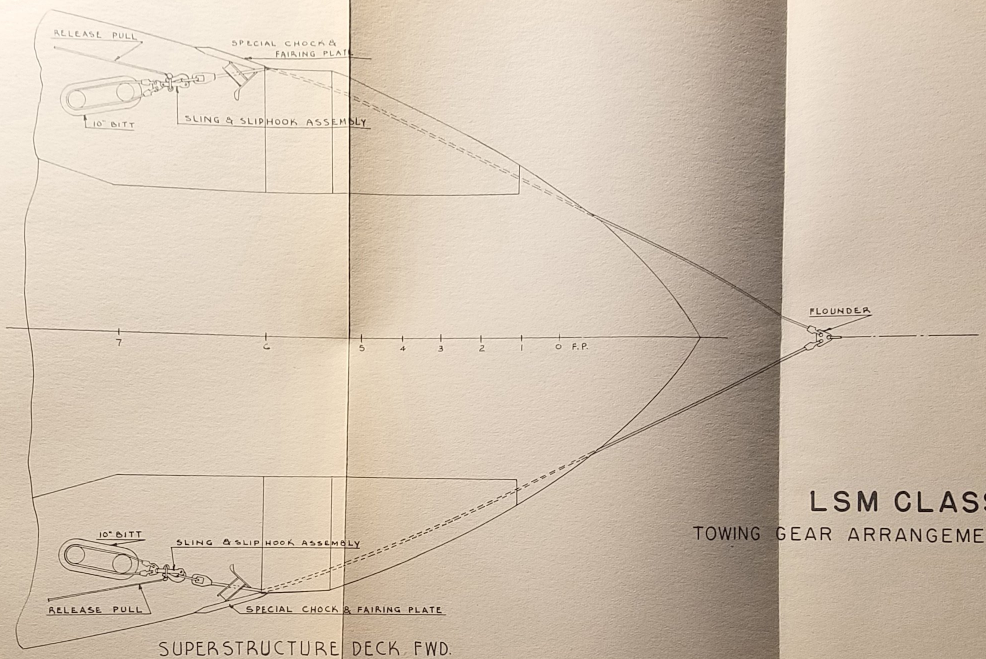
USED FOR TOWING ON FORWARD OR AFT BITTS

NOTE:-

TOWING IS ACCOMPLISHED BY ANCHOR CABLE LED FROM AFT WINCH THRU BERGER FAIRLEADER.

ACKLE

FLOUNDER



SUPERSTRUCTURE DECK, FWD.
SHOWING LOCATION OF BITTS & CHOCKS
FOR TOWING

LSM CLASS

TOWING GEAR ARRANGEMENT & DETAILS

PLATE IV

ORDNANCE & ORDNANCE OUTFIT

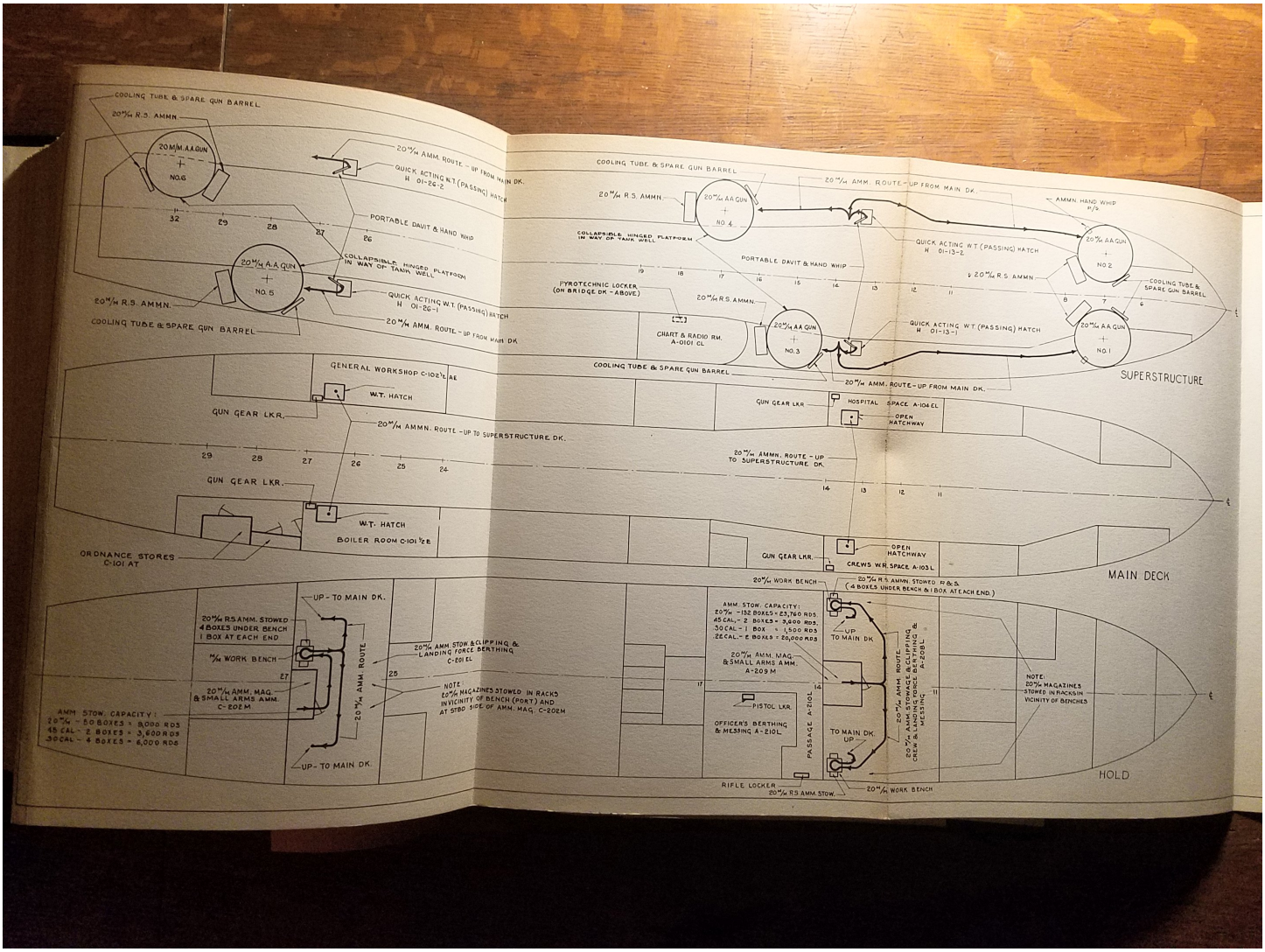
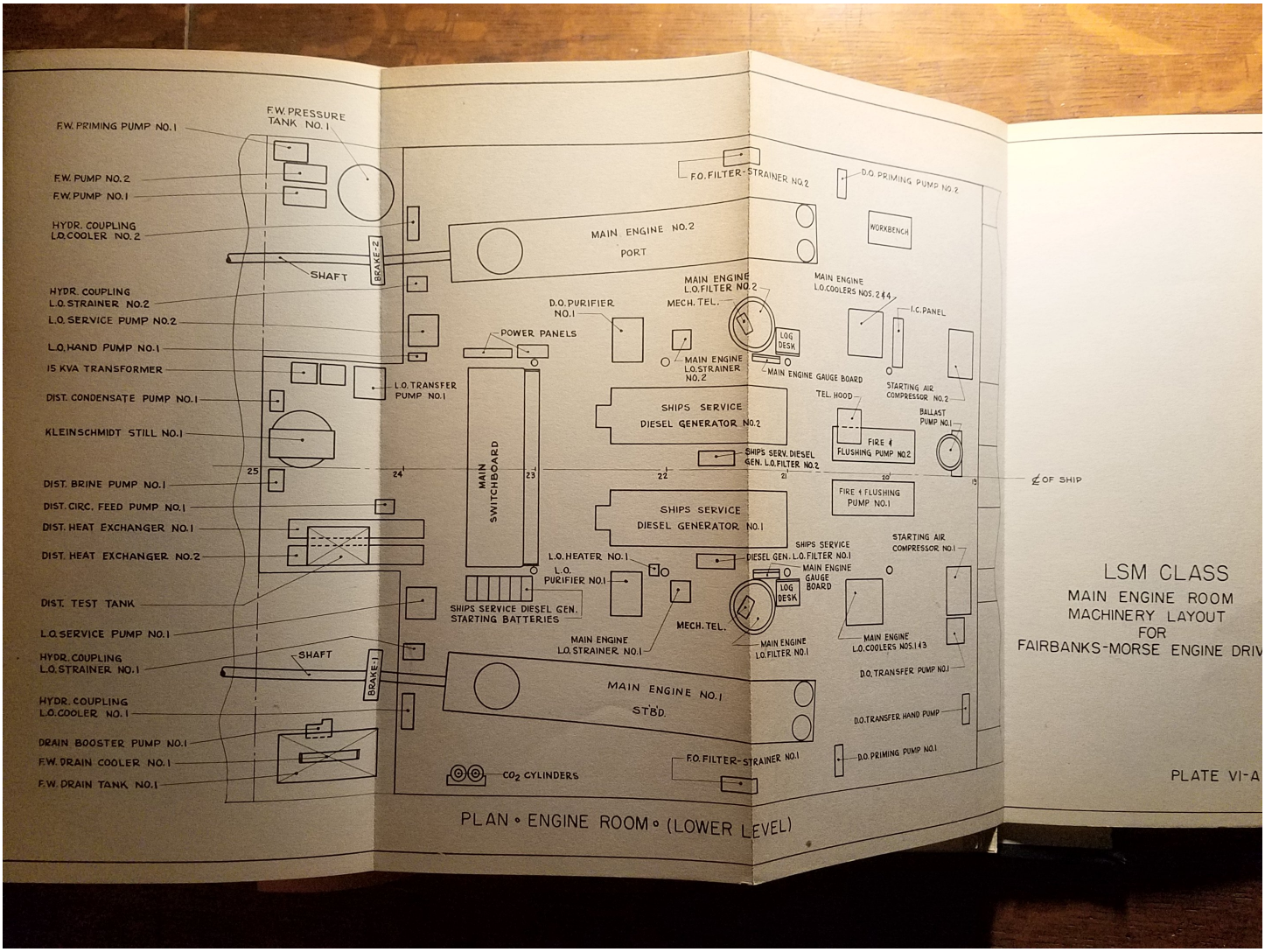

COOLING TUBE & SPARE GUN BARREL
20"/M R.S. AMMN.
20 M/M A.A.GUN NO.6
20"/M AMM. ROUTE - UP FROM MAIN DK.
QUICK ACTING W.T. (PASSING) HATCH H 01-26-2
PORTABLE DAVIT & HAND WHIP
COLLAPSIBLE HINGED PLATFORM IN WAY OF TAUR. WELL
20"/M A.A. GUN NO.5
QUICK ACTING W.T. (PASSING) HATCH H 01-26-1
20"/M AMM. ROUTE - UP FROM MAIN DK.
COOLING TUBE & SPARE GUN BARREL
20"/M R.S. AMMN.
COOLING TUBE & SPARE GUN BARREL
20"/M AMM. ROUTE - UP FROM MAIN DK.
20"/M R.S. AMMN.
20"/M AA GUN NO. 4
AMMN. HAND WHIP P/S
COLLAPSIBLE HINGED PLATFORM IN WAY OF TAUR. WELL
QUICK ACTING W.T. (PASSING) HATCH H 01-13-2
PORTABLE DAVIT & HAND WHIP
20"/M AA GUN NO.2
20"/M R.S. AMMN.
COOLING TUBE & SPARE GUN BARREL
PYROTECHNIC LOCKER (ON BRIDGE DK - ABOVE)
20"/M R.S. AMMN.
CHART & RADIO RM. A-0101 CL
20"/M AA GUN NO.3
QUICK ACTING W.T. (PASSING) HATCH H 01-13-1
20"/M AA GUN NO.1
COOLING TUBE & SPARE GUN BARREL
20"/M AMM. ROUTE - UP FROM MAIN DK.
SUPERSTRUCTURE
GENERAL WORKSHOP C-102½ AE
W.T. HATCH
GUN GEAR LKR.
20"/M AMMN. ROUTE - UP TO SUPERSTRUCTURE DK.
GUN GEAR LKR.
W.T. HATCH
BOILER ROOM C-101½ E
ORDNANCE STORES C-101 AT
GUN GEAR LKR.
HOSPITAL SPACE A-104 EL
OPEN HATCHWAY
20"/M AMMN. ROUTE - UP TO SUPERSTRUCTURE DK.
OPEN HATCHWAY
CREWS W.R. SPACE A-103 L
MAIN DECK
UP - TO MAIN DK.
20"/M R.S. AMMN. STOWED 4 BOXES UNDER BENCH 1 BOX AT EACH END
"/M WORK BENCH
20"/M AMM. MAG. & SMALL ARMS AMM. C-202 M
20"/M AMM. ROUTE
20"/M AMM. STOW & CLIPPING & LANDING FORCE BERTHING C-201 EL
NOTE: 20"/M MAGAZINES STOWED IN RACKS IN VICINITY OF BENCH (FORT.) AND AT STBD SIDE OF AMM. MAG. C-202M
AMM. STOW. CAPACITY: 20"/M - 50 BOXES = 8,000 RDS 45 CAL. - 2 BOXES = 3,600 RDS 30 CAL. - 4 BOXES = 6,000 RDS
UP - TO MAIN DK.
20"/M WORK BENCH
20"/M R.S. AMMN. STOWED IN 8 & 2 (4 BOXES UNDER BENCH & 1 BOX AT EACH END.)
AMM. STOW. CAPACITY: 20"/M - 132 BOXES = 23,760 RDS. 45 CAL. - 2 BOXES = 3,600 RDS. 30 CAL. - 1 BOX = 1,500 RDS 22 CAL. - 6 BOXES = 20,000 RDS
20"/M AMM. MAG. & SMALL ARMS AMM. A-209 M
UP TO MAIN DK
20"/M AMM. ROUTE
20"/M AMM STOWAGE & CLIPPING CREW & LANDING FORCE BERTHING & MESSING A-210 L
NOTE: 20"/M MAGAZINES STOWED IN RACKS IN VICINITY OF BENCHES
PISTOL LKR.
OFFICER'S BERTHING & MESSING A-210 L
PASSAGE A-210 L
TO MAIN DK UP
RIFLE LOCKER
20"/M R.S. AMM. STOW.
20"/M WORK BENCH
HOLD

PLATE VI-A

MAIN ENGINE ROOM
MACHINERY LAYOUT FOR
FAIRBANKS-MORSE ENGINE DRIVE



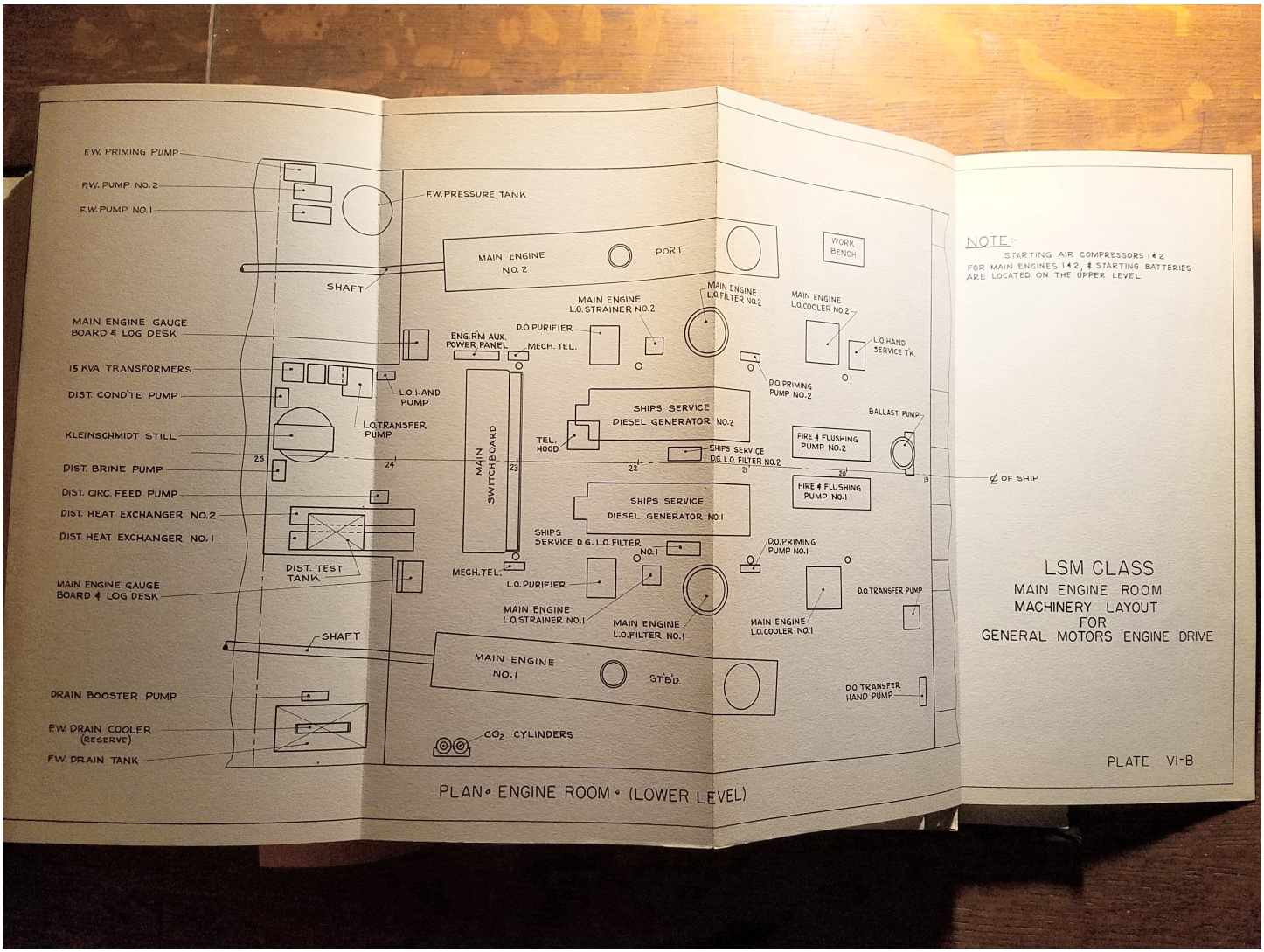
PLAN • ENGINE ROOM • (LOWER LEVEL)

LSM CLASS
MAIN ENGINE ROOM
MACHINERY LAYOUT
FOR
FAIRBANKS-MORSE ENGINE DRIV

PLATE VI-A

PLATE VI-B

MAIN ENGINE ROOM
MACHINERY LAYOUT FOR
GENERAL MOTORS ENGINE DRIVE



PLAN • ENGINE ROOM • (LOWER LEVEL)

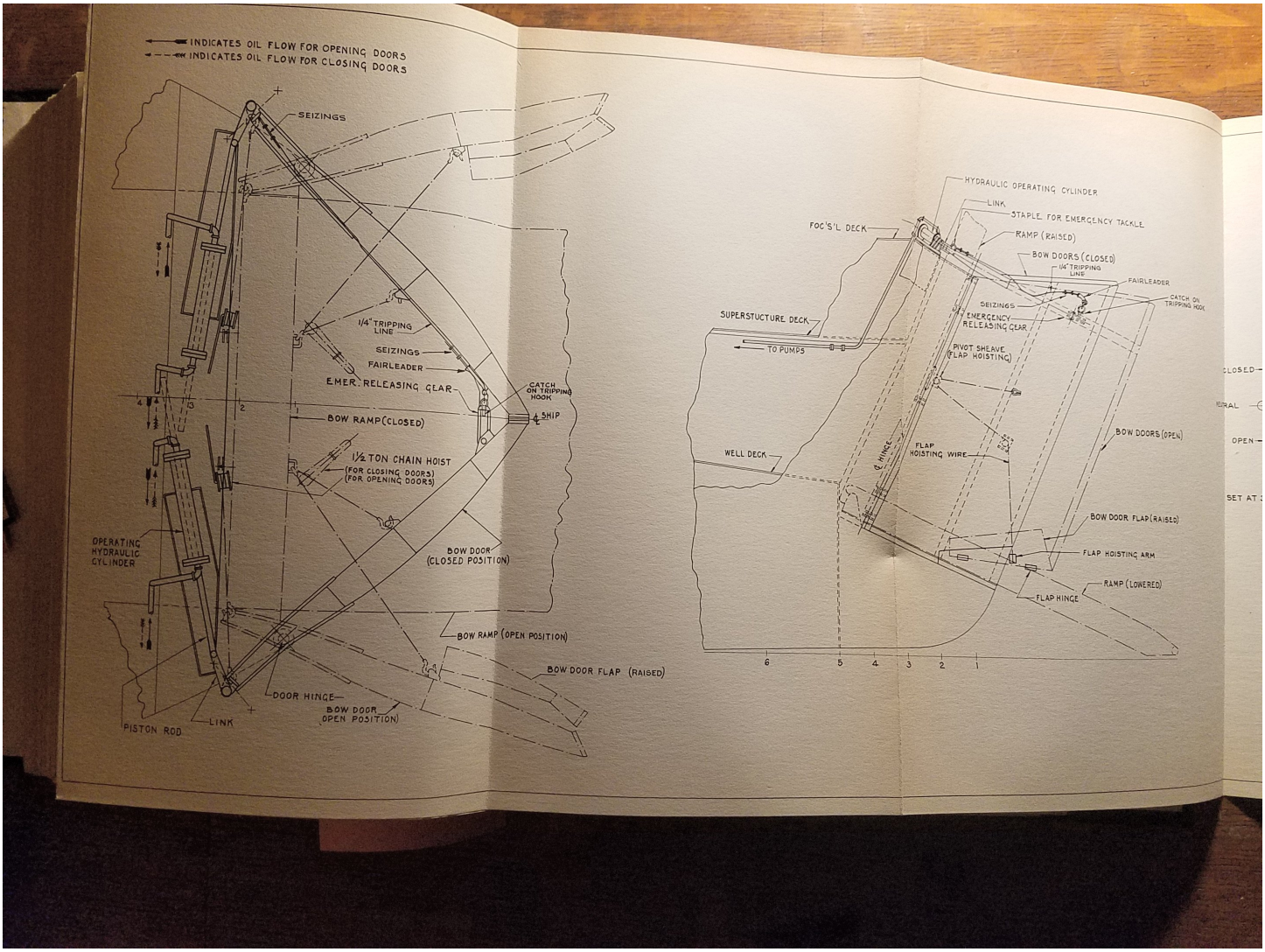
NOTE:-
STARTING AIR COMPRESSORS 1 & 2 FOR MAIN ENGINES 1 & 2, & STARTING BATTERIES ARE LOCATED ON THE UPPER LEVEL

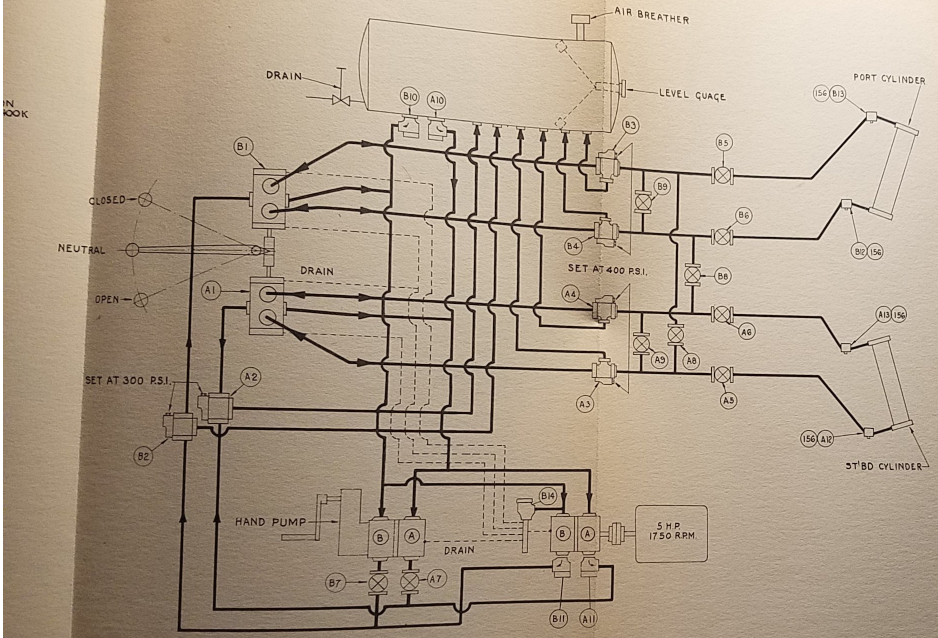
LSM CLASS
MAIN ENGINE ROOM MACHINERY LAYOUT FOR GENERAL MOTORS ENGINE DRIVE

PLATE VI-B

PLATE VII

BOW DOOR OPERATING GEAR & HANDLING ARRANGEMENT


INDICATES OIL FLOW FOR OPENING DOORS
INDICATES OIL FLOW FOR CLOSING DOORS
SEIZINGS
1/4" TRIPPING LINE
SEIZINGS
FAIRLEADER
EMER. RELEASING GEAR
CATCH ON TRIPPING HOOK
BOW RAMP (CLOSED)
℄ SHIP
1½ TON CHAIN HOIST
(FOR CLOSING DOORS)
(FOR OPENING DOORS)
OPERATING HYDRAULIC CYLINDER
BOW DOOR (CLOSED POSITION)
BOW RAMP (OPEN POSITION)
BOW DOOR FLAP (RAISED)
DOOR HINGE
BOW DOOR (OPEN POSITION)
LINK
PISTON ROD
HYDRAULIC OPERATING CYLINDER
LINK
STAPLE FOR EMERGENCY TACKLE
FOC'S'L DECK
RAMP (RAISED)
BOW DOORS (CLOSED)
1/4" TRIPPING LINE
FAIRLEADER
SEIZINGS
CATCH ON TRIPPING HOOK
SUPERSTUCTURE DECK
EMERGENCY RELEASING GEAR
TO PUMPS
PIVOT SHEAVE (FLAP HOISTING)
BOW DOORS (OPEN)
WELL DECK
℄ HINGE
FLAP HOISTING WIRE
BOW DOOR FLAP (RAISED)
FLAP HOISTING ARM
RAMP (LOWERED)
FLAP HINGE
6 5 4 3 2 1



HYDRAULIC CIRCUIT DIAGRAM

OPERATING INSTRUCTIONS

1. REMOVE HOOD DECK. PLACE EMERGENCY RELEASING GEAR IN POSITION TO HOLD DOORS TOGETHER. REMOVE BOLTS, STARTING AT BOTTOM. TRIP RELEASING GEAR.

FILLING & BLEEDING OF SYSTEM:

1. FILL TANK UNTIL LEVEL GAUGE SHOWS ¾ FULL.
2. CLOSE VALVES A5, A6, B5, B6, A8, B8, A9, B9, A7, B7.
3. WITH LEVER IN "NEUTRAL" POSITION, AND RELIEF VALVES A2, B2, SET AT 300 P.S.I., START POWER PUMP. ADD OIL TO MAINTAIN "¾ FULL" LEVEL IN TANK. RUN FOR A FEW MINUTES, THEN MOVE LEVER TO "CLOSED" POSITION, AND THEN TO "OPEN" POSITION, ALLOWING OIL TO CIRCULATE AND FREE SYSTEM FROM AIR.
4. OPEN GATE VALVES A5, A6, B5, B6, AND VENTS A12, A13, B12, B13.
5. MOVE LEVER TO "CLOSED" POSITION AND SHUT OFF VENTS A13, B12. WHEN CLEAR OIL FLOWS FROM VENTS. MOVE LEVER TO "OPEN" POSITION (DOORS SECURED), CLOSE VENTS A12, B13, WHEN CLEAR OIL FLOWS FROM VENTS.
6. OIL TO BE ALLOWED TO DROP TO ½ FULL" LEVEL.
7. HAND PUMP CAN BE USED FOR FILLING SYSTEM BY OPERATING HANDCRANK AND OPENING VALVES A7, B7.

TESTING:

1. CLOSE VALVES A5, A6, B5, B6 AND TEST ALL RELIEF VALVES.
2. ATTACH PRESSURE GAUGES TO RELIEF VALVES A2, B2. TURN ADJUSTING SCREWS COUNTER-CLOCKWISE AS FAR AS THEY WILL GO. MOVE LEVER TO "CLOSE" POSITION AND HOLD. THEN TURN ADJUSTING SCREWS CLOCKWISE UNTIL 300 P.S.I. IS READ ON BOTH GAUGES AND TIGHTEN JAM NUTS.
3. TURN ADJUSTING SCREWS ON RELIEF VALVES A3, A4, B3, B4, CLOCKWISE UNTIL THREADS ARE FLUSH WITH JAM NUTS. MOVE LEVER TO "CLOSE" POSITION AND HOLD. THEN TURN ADJUSTING SCREWS COUNTER-CLOCKWISE ON RELIEF VALVES A4, B4, UNTIL GAUGES SHOW A DROP IN PRESSURE, TURN CLOCKWISE ONE (1) TURN (ABOUT 400 P.S.I.) AND LOCK JAM NUTS. MOVE LEVER TO "OPEN" POSITION AND REPEAT ON RELIEF VALVES A3, B3 (DOORS SECURED)
4. OPEN VALVES A5, A6, B5, B6, AND KEEP OPEN.

OPERATING:

1. ALWAYS BLEED AIR BEFORE OPERATING DOORS, JERKY MOVEMENT OF DOORS INDICATES AIR IN SYSTEM. VALVES A7, B7, TO BE CLOSED.
2. REMOVE DOOR LOCKS—START MOTOR—WITH LEVER IN "NEUTRAL" POSITION. WATCH OIL LEVEL IN TANK (½ FULL), AND START OPERATING DOORS BY MOVING LEVER TO "OPEN" POSITION, HOLD UNTIL DOORS FULLY OPEN. THEN RELEASE LEVER TO "NEUTRAL" POSITION. INCREASE IN OIL LEVEL INDICATES THAT AIR HAS ENTERED SYSTEM. —TO CLOSE DOORS, MOVE LEVER TO "CLOSE" POSITION, HOLD UNTIL DOORS ARE FULLY CLOSED AND RELEASE LEVER TO "NEUTRAL" POSITION.

BREAKDOWN IN SYSTEM:

1. FAILURE IN EITHER OF THE POWER DRIVEN PUMPS, OR EITHER OF THE HAND DRIVEN PUMPS: OPEN GATE VALVES A8, AND B8. WHEN USING HAND PUMP OPEN A7, OR B7 ALSO.
2. FAILURE OF BOTH POWER DRIVEN PUMPS OR MOTOR, OPEN GATE VALVES A7, B7, AND SUPPLY POWER BY MEANS OF GEARED HAND CRANK.
3. FAILURE IN PORT CYLINDER: CLOSE VALVES B5, B6, OPERATE STARBOARD DOOR UNTIL IN REQUIRED POSITION. RELEASE LEVER TO "NEUTRAL" POSITION. OPEN GATE VALVES B5, B6, AND GLOBE VALVE B9, AND OPEN PORT DOOR. PULL DOOR FULLY OPEN WITH CHAIN HOIST.
4. FAILURE IN STARBOARD CYLINDER: OPERATE SAME AS FOR PORT CYLINDER, BUT CLOSE VALVES A5, A6 AND THEN OPEN VALVES A5, A6, A9, TO OPEN STARBOARD DOOR. PULL DOOR FULLY OPEN WITH CHAIN HOIST.
5. FAILURE OF POWER IN ENTIRE SYSTEM, WITH CYLINDERS IN WORKING CONDITION, OPEN VALVES A9, B9, AND OPEN DOORS. IF CYLINDERS ARE DAMAGED, AND SHAFTS CANNOT BE MOVED, PLACE EMERGENCY RELEASING GEAR IN POSITION TO HOLD DOORS TOGETHER, REMOVE PIN IN LINK CONNECTING PISTON, CROSSHEAD AND DOOR ARM, MOVE BEDPLATE OF CYLINDERS TO PERMIT MOVEMENT OF DOOR LEVER ARM. EMERGENCY RELEASING GEAR IS TRIPPED FROM A POSITION ON LADDER OF PORT DOOR. AS AN ALTERNATE TO MOVING BEDPLATE, DOOR LEVER ARM MAY BE CUT AT POINT X-X LEAVING STAPLE FOR EMERGENCY CHAIN HOIST.

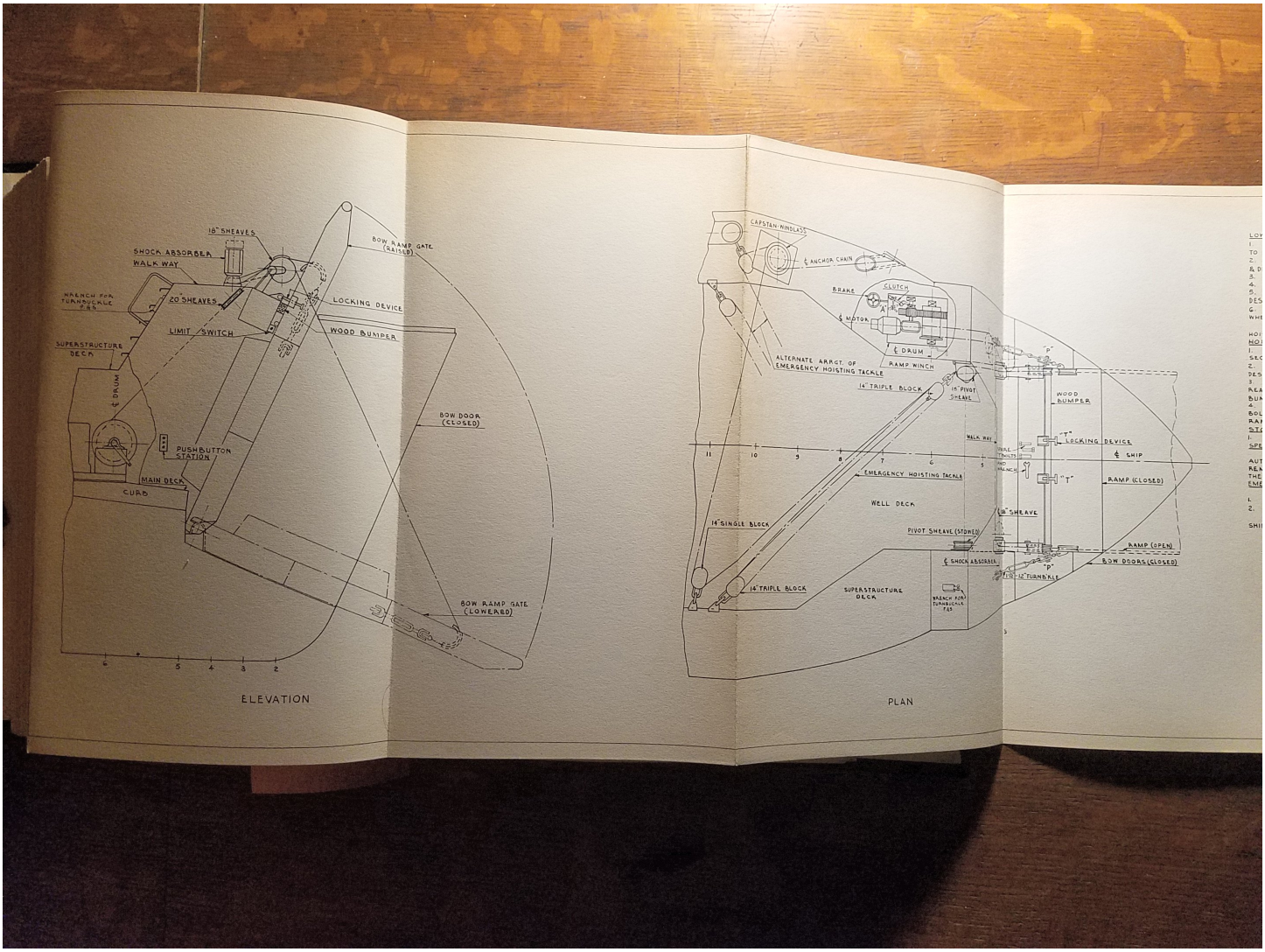
LSM CLASS

BOW DOOR OPERATING GEAR AND HANDLING ARRANGEMENT

PLATE VII

PLATE VIII

ANCHOR & RAMP HANDLING GEAR


18" SHEAVES
SHOCK ABSORBER
WALK WAY
BRANCH FOR TURNBUCKLE PAD
20" SHEAVES
LIMIT SWITCH
SUPERSTRUCTURE DECK
℄ DRUM
PUSHBUTTON STATION
MAIN DECK
CURB
BOW RAMP GATE (RAISED)
LOCKING DEVICE
WOOD BUMPER
BOW DOOR (CLOSED)
BOW RAMP GATE (LOWERED)
ELEVATION
CAPSTAN-WINDLASS
℄ ANCHOR CHAIN
BRAKE
CLUTCH
℄ MOTOR
℄ DRUM
RAMP WINCH
ALTERNATE ARRGT. OF EMERGENCY HOISTING TACKLE
14' TRIPLE BLOCK
15" PIVOT SHEAVE
WOOD BUMPER
"T" LOCKING DEVICE
℄ SHIP
"T"
RAMP (CLOSED)
WALK WAY
RAIL POSTS
HD WINCH
EMERGENCY HOISTING TACKLE
WELL DECK
14' SINGLE BLOCK
18" SHEAVE
PIVOT SHEAVE (STOWED)
RAMP (OPEN)
℄ SHOCK ABSORBER
"P"
BOW DOORS (CLOSED)
TWO 16" TURNBUCKLE
16' TRIPLE BLOCK
SUPERSTRUCTURE DECK
BRANCH FOR TURNBUCKLE PAD
PLAN

RAMP GATE
OPERATION INSTRUCTIONS

LOWER

1. LOOSEN AND DISENGAGE "T" BOLTS, TRANSFER WEIGHT OF RAMP FROM TURNBUCKLES TO HOISTING WIRES BY SLACKENING TURNBUCKLES AND REMOVE PINS "P" PORT & STARBD.
2. THROW SHIFTING LEVER A.S.O. THAT THE IDLER PINION GEAR MESHES WITH MAIN PINION & DRUM GEAR ON DRUM SHAFT.
3. LOCK SHIFTING LEVER IN POSITION BY MEANS OF PIN PROVIDED FOR THIS PURPOSE.
4. RELEASE HAND BRAKE.
5. PRESS BUTTON MARKED "LOWER", AND KEEP DEPRESSED UNTIL RAMP REACHES DESIRED POSITION.
6. THE MACHINE LIMIT SWITCH ON WINCH AUTOMATICALLY STOPS THE MOTOR WHEN THE RAMP REACHES ITS MAXIMUM LOWERED POSITION.
   DO NOT PLACE ANY LOAD ON RAMP UNTIL SLACK IS DEVELOPED IN HOISTING WIRE ROPES AND RAMP IS RESTING ON DOW OR ON BEACH.

HOIST

1. ASCERTAIN THAT IDLER PINION IS IN MESH PRIOR TO HOISTING & SHIFTING LEVER IS SECURED IN LOCKED POSITION.
2. PRESS BUTTON MARKED HOIST & KEEP DEPRESSED UNTIL RAMP REACHES DESIRED POSITION.
3. THE HOIST LIMIT SWITCH WILL AUTOMATICALLY STOP THE MOTOR WHEN THE RAMP REACHES ITS MAXIMUM CLOSED POSITION, WHICH SHOULD BE JUST CLEAR OF WOODEN BUMPER.
4. ENGAGE HAND BRAKE AND SECURE RAMP IN STOWED POSITION, BY MEANS OF "T" BOLTS AND TURNBUCKLES BY REPLACING PINS "P" WHICH WERE REMOVED WHEN RAMP WAS LOWERED.

STOP

1. TO STOP UNDER ANY CONDITION REMOVE FINGER FROM BUTTON BEING PRESSED

SPECIAL FEATURES

OVERLOAD AND UNDER VOLTAGE CONDITIONS WILL CAUSE MOTOR TO STOP AUTOMATICALLY. THERMAL AND INSTANTANEOUS RELAYS ARE "AUTOMATIC RESET". AFTER REMOVAL OF POWER DUE TO AN OVERLOAD CONDITION OR UNDERVOLTAGE CONDITION, THE MOTOR MUST BE RESTARTED BY THE PUSH BUTTONS.

EMERGENCY RUN

TO OPERATE IN ANY EMERGENCY WHEN OVERLOAD RELAY HAS TAKEN CONTROL.

1. TO LOWER PRESS "LOWER" BUTTON AND EMERGENCY RUN BUTTON TOGETHER.
2. TO HOIST PRESS "HOIST" BUTTON AND EMERGENCY RUN BUTTON.

THE RAMP MAY BE LOWERED IN AN EMERGENCY BY DISENGAGING THE SHIFTING LEVER AND CONTROLING THE RAMP BY MEANS OF THE HAND BRAKE.
FOR EMERGENCY HOISTING AND TACKLE SEE PLAN VIEW.

WINDLASS-CAPSTAN LUBRICATION TABLE

ITEM	PART	FITTING NO	FITTING TYPE	LUBRICANT	SYMBOL	FREQUENCY OF APPLICATION
1.	GEAR CASE (REMOVE GAUGE)	1	PLUG	OIL	2250	*
2.	SECONDARY SHAFT UPPER BEARING	1	PRESS	GREASE	14 L 12 STAND GR. 1	MONTHLY
3.	MAIN SHAFT UPPER BEARING	1	"	"	"	"
4.	WILDCAT BUSHING	1	"	"	"	"
5.	HAND BRAKE GEAR BOX	–	–	"	"	+
6	ELECTRIC MOTOR FRONT BEARING	1	CUP	"	14 L 3b GR. B	MONTHLY
7.	ELECTRIC MOTOR REAR BEARING	1	"	"	"	"
8.	TORQUE COUPLING	2	PRESS	"	14 G 1 GR. 11	"

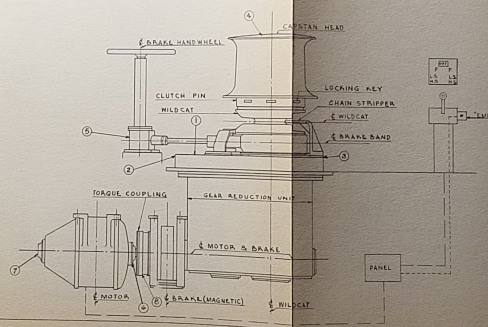
* INSPECT WEEKLY. DRAIN & REFILL SEMI-ANNUALLY FOR THINNING PURPOSES USE NAVY SYMBOL OIL 2135.
+ THIS HOUSING PACKED IN GREASE. REMOVE INSPECTION COVER AND REFILL SEMI-ANNUALLY.

EMERGENCY OPERATION:-

1. IN THE EVENT OF FAILURE OF THE RAMP WINCH THE RAMP IS HOISTED BY THE EMERGENCY TACKLE SHOWN.
2. DISCONNECT ONE WIRE (ON EITHER SIDE) FROM RAMP DRUM, REMOVE FROM 20" LEAD SHEAVES AND REEVE OVER 18" PIVOT SHEAVE.
3. CONNECT END OF WIRE TO SHACKLE OF BLOCK WITH THIMBLE AND 4 WIRE ROPE CLAMPS.
4. RAMP IS HOISTED BY LEADING SISAL LINE TO CAPSTAN AS RAMP COMES UP HAND CRANK ON DRUM SHAFT IS USED TO SPOOL WIRE ROPE NOT IN USE.

REPLACING WIRE ROPES:-

5. WHEN REPLACING WIRES, THEY SHOULD BE OF SUCH LENGTH THAT 3 FULL TURNS REMAIN ON THE DRUM WHEN RAMP IS LOWERED TO REST ON THE POW TURNBUCKLES ON SIDE OF RAMP ARE USED TO EQUALIZE PULL ON ROPES.



ELECTRIC CONTROL
WILDCAT

1. ALIGN SLOTS IN WILDCAT WITH LOCKING KEYS.
2. INSERT 3/4" DIAMETER HANDLE IN CIRCUMFERENTIAL LOCKING RING HOLES.
3. DISENGAGE CLUTCH PIN TO PERMIT MOVEMENT OF LOCKING RING.
4. ROTATE LOCKING RING APPROXIMATELY 41 DEGREES TO ENGAGE LOCKING KEYS.
5. REMOVE CLUTCH PIN.

CAUTION

HANDLE MUST NOW BE REMOVED FROM LOCKING RING TO PREVENT POSSIBLE INJURY TO MACHINERY OR PERSONNEL.

6. APPLY MECHANICAL BRAKE FOR RELEASED POSITION. HANDWHEEL TO LEFT.
7. PUSH "START" BUTTON TO ENERGIZE ELECTRIC MOTOR, AUTOMATICALLY RELEASING MAGNETIC BRAKE.

CAPSTAN HEAD

THE CAPSTAN HEAD NORMALLY ROTATES WHENEVER THE ELECTRIC MOTOR IS OPERATING.
TO OPERATE THE CAPSTAN HEAD INDEPENDENT OF THE WILDCAT PROCEED AS FOLLOWS:-

1. SET MECHANICAL BRAKE, HANDWHEEL TO RIGHT.
2. DISENGAGE WILDCAT FROM LOCKING HEAD BY REVERSING THE PROCEDURE OUTLINED ABOVE.
3. PUSH START BUTTON TO ENERGIZE ELECTRIC MOTOR, AUTOMATICALLY RELEASING MAGNETIC BRAKE.

NOTES

MECHANICAL BRAKE IS SET (HANDWHEEL TO RIGHT) WHENEVER IT IS DESIRED TO STOP OR HOLD ANCHOR WITH THE WILDCAT IN THE DISENGAGED POSITION.
MANUAL OPERATION WITH ELECTRIC MOTOR AND MAGNETIC BRAKE DOES NOT REQUIRE SETTING OF MECHANICAL BRAKE.

WINDLASS OPERATION

THE WINDLASS MAY BE OPERATED IN EITHER DIRECTION BY MEANS OF THE DRUM SELECTOR SWITCH LOCATED ON THE SUPERSTRUCTURE DECK, PORT SIDE.

THE POSITIONS OF OPERATIONS ARE:-

1. OFF
2. "A" ARM UP
3. SLOW SPEED
4. HIGH SPEED

ANY POSITION OF OPERATION MAY BE SELECTED DIRECTLY.

EMERGENCY RUN:-

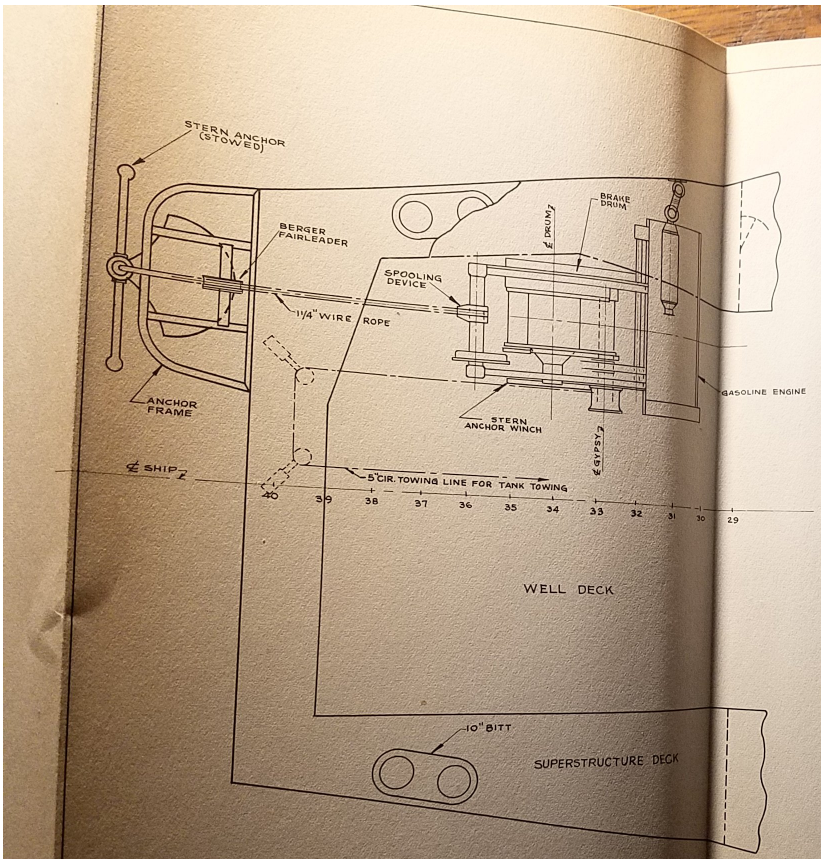
IF OVERLOAD RELAY IS TRIPPED AND OPERATION REQUIRED PUSH EMERGENCY BUTTON AND PROCEED AS IN NORMAL OPERATIONS.

LSM CLASS
ANCHOR & RAMP
HANDLING GEAR

PLATE VIII

PLATE IX

STERN ANCHOR HANDLING GEAR — PLAN VIEW



OPERATION OF STERN ANCHOR WINCH

TO RELEASE ANCHOR

1. SET DRUM BRAKE
2. RELEASE LATCH ON SPOOLING FORK AND TURN DOWN TO DISENGAGE FROM CABLE. *
3. MOVE SLIDING PINION TO "NEUTRAL" WITH LEVER.
4. BY RELEASING DRUM BRAKE, CABLE IS RUN OUT AS DESIRED.

TO HOIST ANCHOR

1. SET CONVERTER BRAKE.
2. DISENGAGE ENGINE CLUTCH LEVER.
3. START GASOLINE MOTOR & WARM UP.
4. TURN UP SPOOLING FORK TO ENGAGE CABLE. CARE IS TO BE TAKEN THAT FORK IS IN LINE WITH TURN OF CABLE ON DRUM.
5. IF SPOOLING DEVICE IS DISENGAGED ADJUST BY TURNING HANDWHEEL, & ENGAGE SPOOLING DEVICE WITH BULL GEAR BY TURNING ECCENTRIC WHEEL.
6. MOVE SLIDING PINION TO "FORWARD" WITH LEVER.
7. RELEASE DRUM BRAKE.
8. ENGAGE ENGINE CLUTCH & RELEASE CONVERTER BRAKE.
9. HOISTING IS CONTROLLED BY MOTOR THROTTLE.

TO TOW TANKS

1. SET DRUM BRAKES,
2. MOVE SLIDING PINION TO "NEUTRAL" WITH LEVER.
3. RIG BLOCKS & LINE AS SHOWN.

NOTE:-

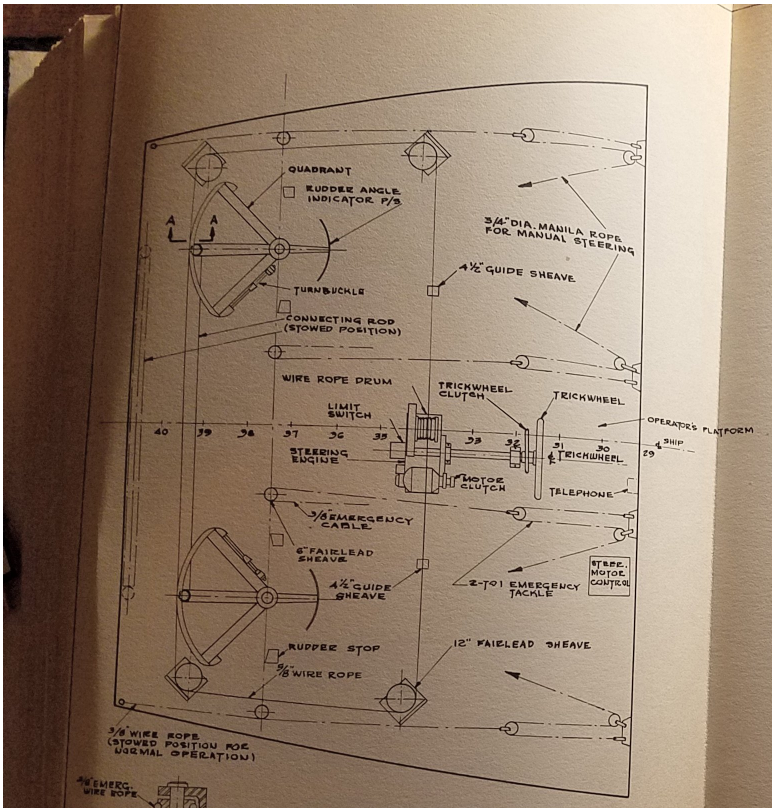
* IF SPOOLING DEVICE GEARING CHATTERS DUE TO HIGH SPEED, DISENGAGE.

LSM CLASS

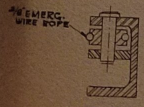
STERN ANCHOR HANDLING GEAR

PLATE IX

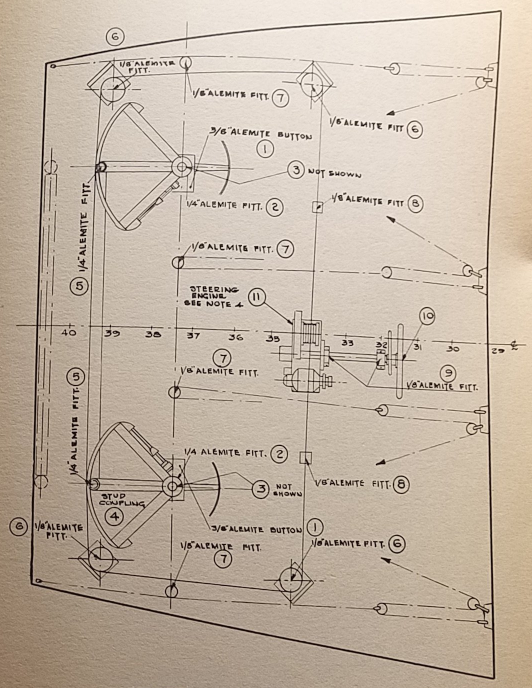
STEERING GEAR
ARRANGEMENT & LUBRICATION



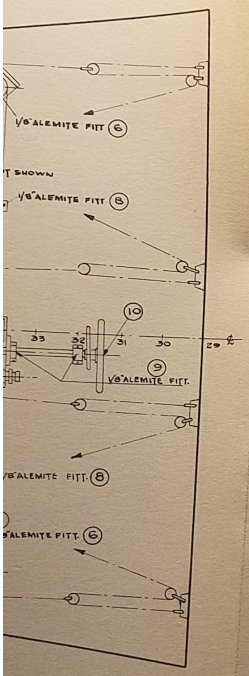
STEERING GEAR ARRANGEMENT

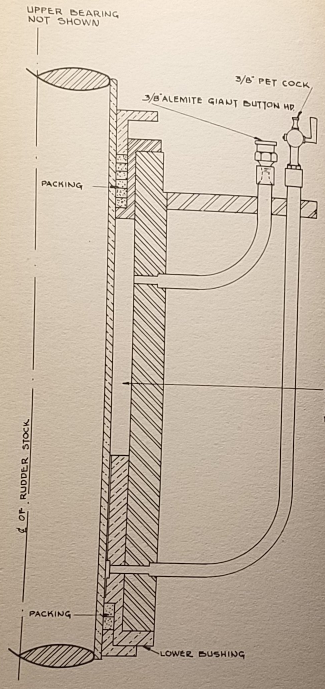


SECTION A-A
SHOWING EMERGENCY TILLER ROPE CONN.



STEERING GEAR LUBRICATION CHART





SECTION THRU RUDDER TRUNK

STEERING GEAR OPERATION

ELECTRIC POWER STEERING
MOTOR CLUTCH IS ENGAGED, TRICKWHEEL CLUTCH IS DISENGAGED, 3/8" EMERGENCY WIRE ROPE IS IN STOWED POSITION.

HAND STEERING WITH TRICKWHEEL
MOTOR CLUTCH IS DISENGAGED, AND TRICKWHEEL CLUTCH IS ENGAGED. 3/8" EMERGENCY WIRE ROPE IS IN STOWED POSITION.

EMERGENCY HAND STEERING.
DISCONNECT 3/8" WIRE ROPE FROM QUADRANTS. REMOVE CONNECTING RODS FROM QUADRANTS & STOW. CONNECT 3/8" EMERGENCY WIRE TO QUADRANTS. STEERING IS ACCOMPLISHED BY 3/4" MANILA ROPE TACKLE

LIMIT SWITCHES FOR POWER STEERING ARE ADJUSTED FOR 35 DEGREE WORKING ANGLE EIGHT & LEFT AT THE STEERING ENGINE. POSITIVE RUDDER STOPS FOR 37 DEGREE ANGLES ARE PROVIDED.

THIS SPACE TO BE FILLED WITH LUBRICANT. TO PREVENT AIR PACKETS. LUBRICANT TO BE PUMPED FIRST INTO VOID SPACE THROUGH LOWER PIPE USING UPPER PIPE AS VENT. FINAL FILLING TO BE MADE THROUGH UPPER PIPE & 3/8" ALEMITE GIANT BUTTON HD.

LUBRICATION CHART TABLE
STEERING GEAR, RUDDER STOCK, BEARINGS, ETC.

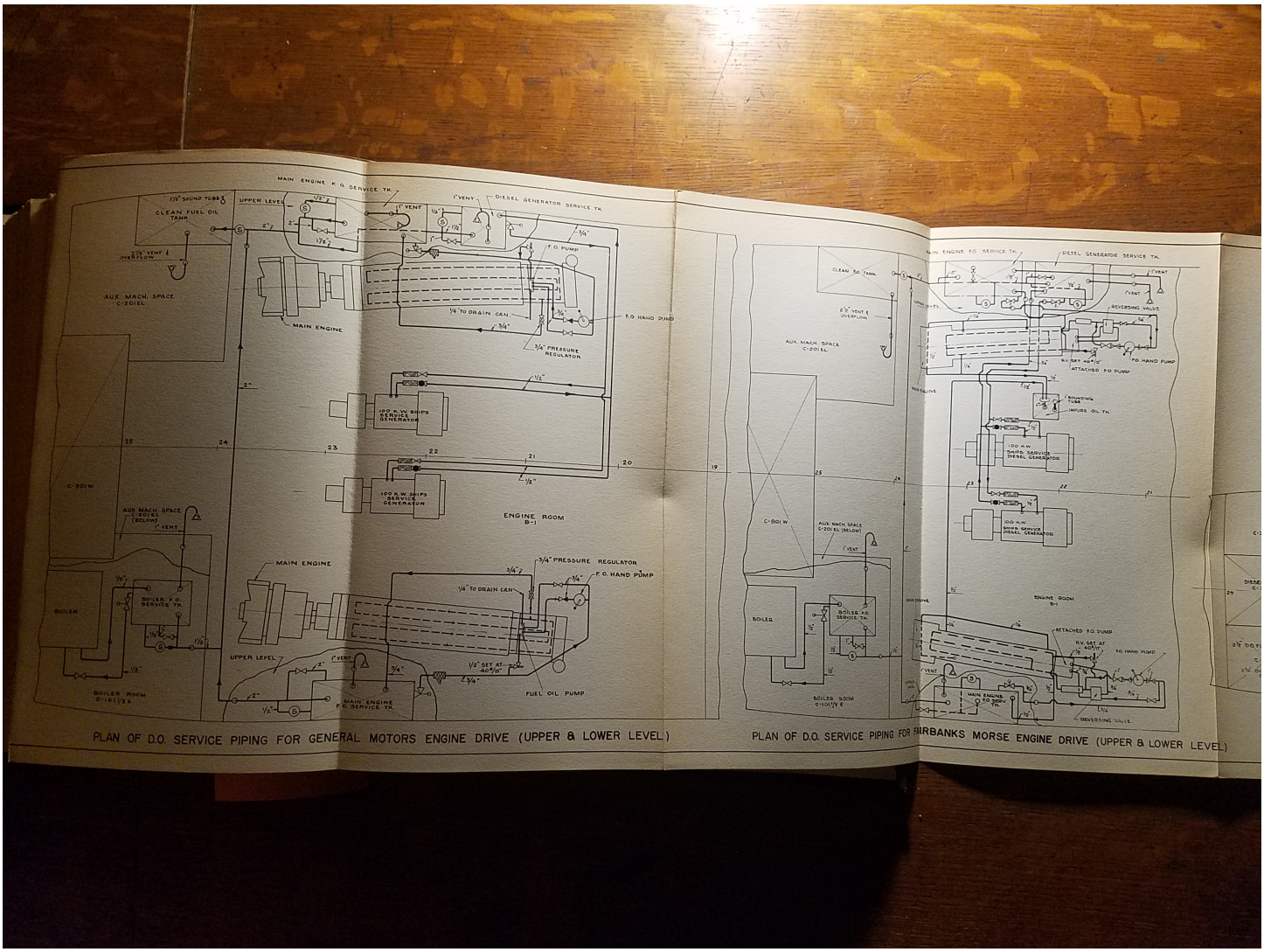
	PART	FITTING NO. TYPE	LUBRICANT		SYMBOL OR SPEC.	FREQUENCY OF APPLICATION
1	LOWER BUSHING FOR RUDDER STOCK BEARING.	2	PRESSURE GREASE		U.S.G.C. GRADE "B"	DAILY
2	BEARING DISK (CARRIER)	2	"	"	"	"
3	UPPER BEARING BUSHING (RUDDER STOCK)	2	"	"	"	"
4	STUD COUPLING (RUDDER ANGLE TRANS.)	2	"	"	"	"
5	CONNECTING ROD PIN.	2	"	"	"	"
6	12" LEAD SHEAVE	4	"	"	"	"
7	6" LEAD SHEAVE (EMERGENCY)	4	"	"	"	WEEKLY
8	4½" GUIDE SHEAVE	2	"	"	"	DAILY
9	TRICKWHEEL SHAFT & BEARING	2	"	"	"	MONTHLY
10	TRICKWHEEL	1	"	"	"	"
11	STEERING ENGINE		-			

NOTES:
1. ITEMS NO. 1 TO 10 INCLUSIVE ARE ALEMITE GREASE FITTINGS.
2. TRICKWHEEL SPROCKET CHAIN DRIVE & CLUTCH MECHANISM TO BE COATED WITH LUBRICANT.
3. FOR ALL PARTS OF EMERGENCY STEERING APPLY LUBRICANT AS REQUIRED.
4. LUBRICATION OF ITEM NO. 11 AS DIRECTED BY SPERRY GYROSCOPE CO. INSTRUCTION BOOK.

LSM CLASS
STEERING GEAR ARRANGEMENT & LUBRICATION

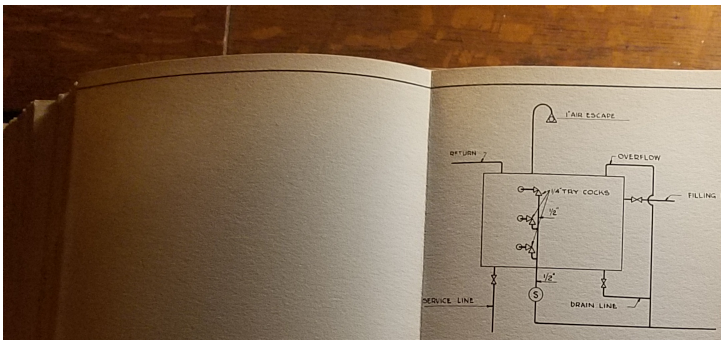
PLATE X

D.O. TRANSFER & D.O. SERVICE PIPING SYSTEMS

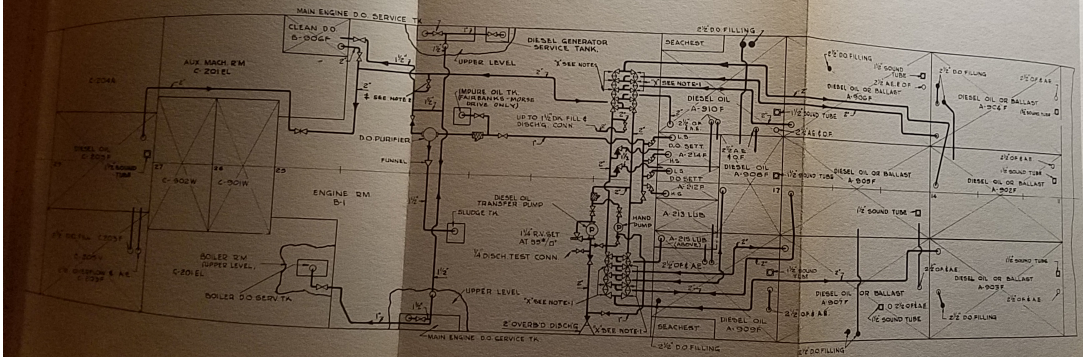


PLAN OF D.O. SERVICE PIPING FOR GENERAL MOTORS ENGINE DRIVE (UPPER & LOWER LEVEL)

PLAN OF D.O. SERVICE PIPING FOR FAIRBANKS MORSE ENGINE DRIVE (UPPER & LOWER LEVEL)



TYPICAL ELEVATION SHOWING CONNS. AT FUEL OIL SERVICE TANKS



PLAN OF D.O. TRANSFER PIPING FOR GSM & FCT MOTOR DRIVES (UPPER & LOWER LEVEL)

LEGEND

- GLOBE STOP & ANGLE STOP VALVE
- GATE VALVE
- CROSS VALVE
- GLOBE & ANGLE STOP CHECK VALVES.
- LIFT CHECK VALVE
- PRESSURE REGULATOR
- SWING CHECK
- RELIEF VALVE
- DISTANTLY OPERATED VALVE
- INVERTED CHECK VALVE
- STRAINER
- SIGHT FLOW
- FUNNELS
- COMBINED FILTER & STRAINER
- FLEXIBLE METALLIC HOSE

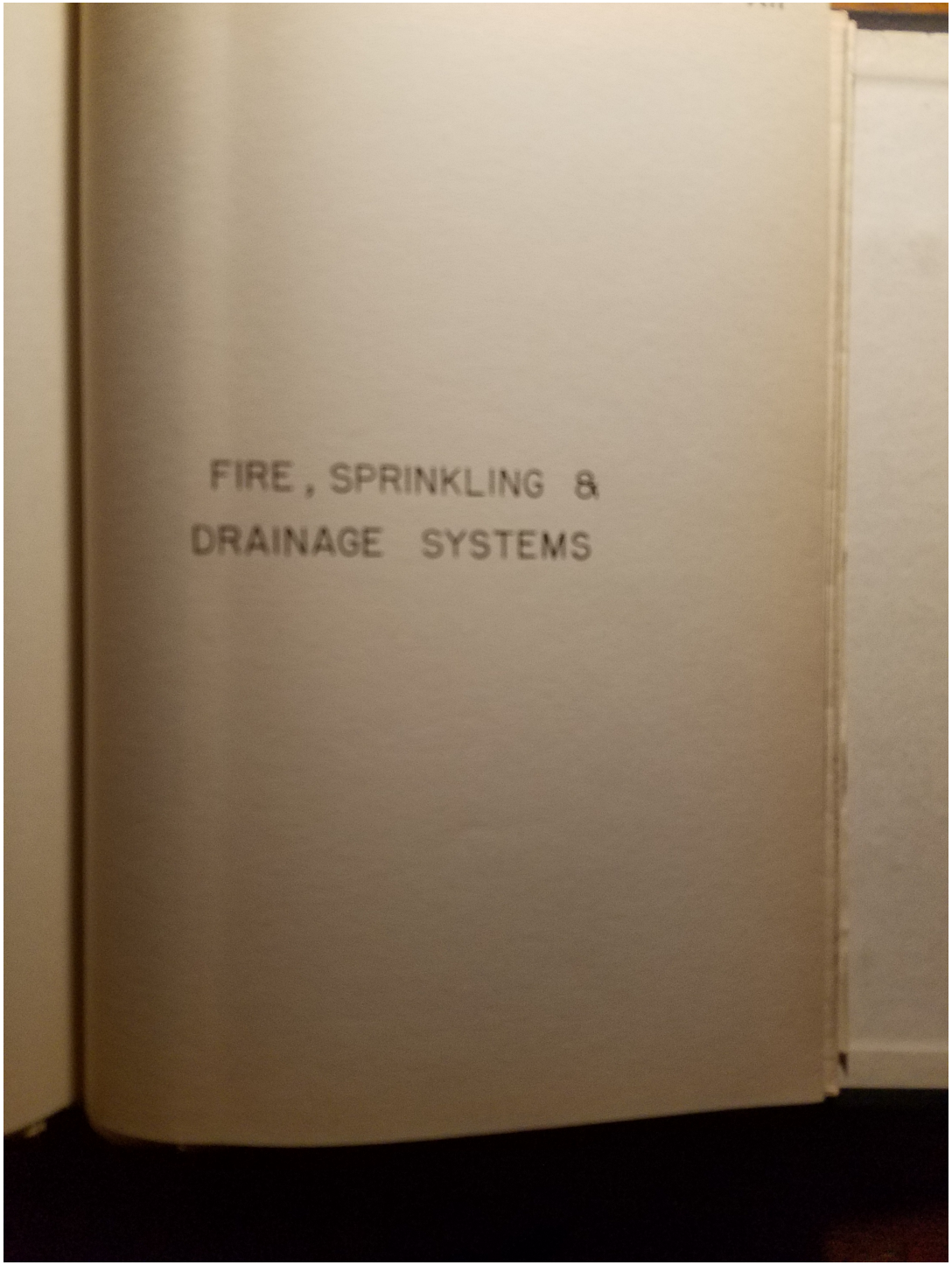
NOTES

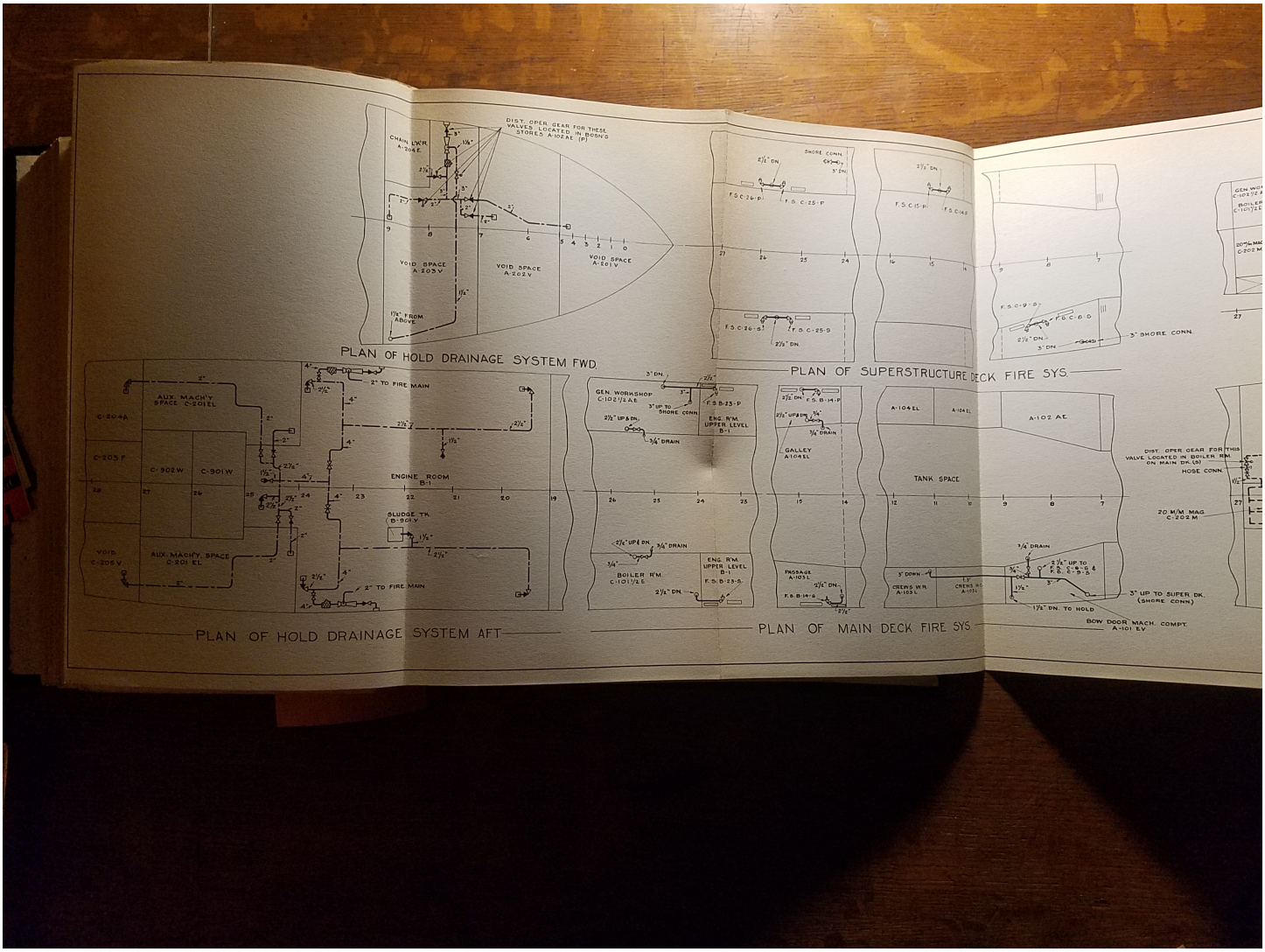
1. VALVES MARKED "X" ARE TO BE LOCKED CLOSED WHEN TANKS CONTAIN BALLAST AND DURING BALLASTING OPERATION.
2. VALVE MARKED "S" TO BE KEPT LOCKED CLOSED EXCEPT WHEN TRANSFERRING OIL TO SERVICE TANKS BY MEANS OF TRANSFER PUMP.

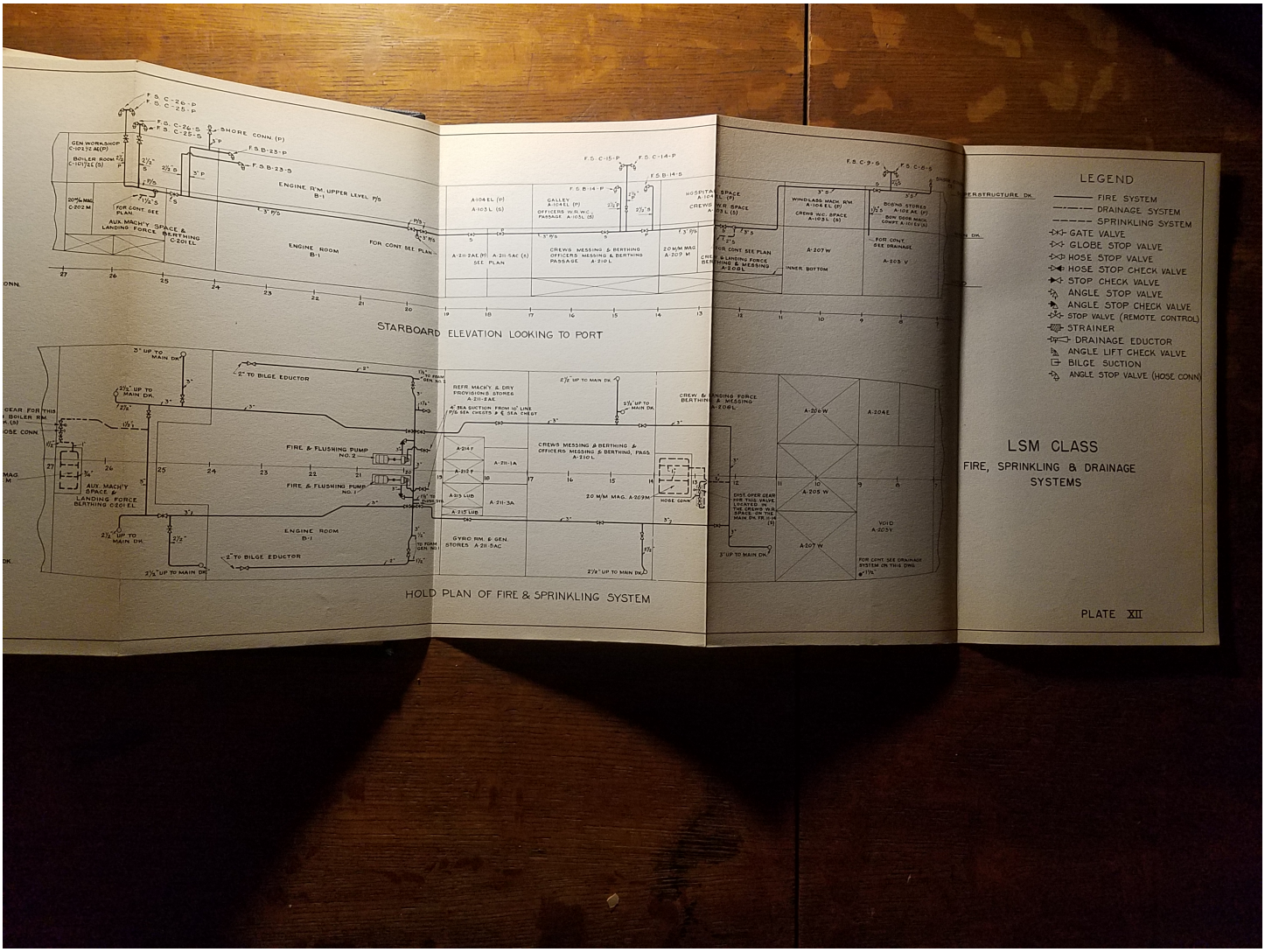
LSM CLASS

D.O. TRANSFER & D.O. SERVICE PIPING SYSTEMS

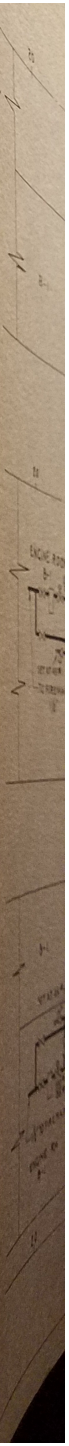
PLATE XI


FIRE, SPRINKLING &
DRAINAGE SYSTEMS


DIST. OPER GEAR FOR THESE VALVES LOCATED IN BOSN'S STORES A-102AE (P)
CHAIN LKR. A-204E
VOID SPACE A-203V
VOID SPACE A-202V
VOID SPACE A-201V
17½" FROM ABOVE
PLAN OF HOLD DRAINAGE SYSTEM FWD.
SHORE CONN.
F.S. C-26-P
F.S. C-25-P
F.S. C-15-P
F.S. C-14-S
F.S. C-26-S
F.S. C-25-S
PLAN OF SUPERSTRUCTURE DECK FIRE SYS.
3" SHORE CONN.
AUX. MACH'Y SPACE C-201 EL
C-204 A
C-203 F
C-902 W
C-901 W
VOID C-205 V
AUX. MACH'Y. SPACE C-201 EL
2" TO FIRE MAIN
ENGINE ROOM B-1
SLUDGE TK. (B-901 V)
2" TO FIRE MAIN
PLAN OF HOLD DRAINAGE SYSTEM AFT
GEN. WORKSHOP C-102½ AE
3" UP TO SHORE CONN
ENG. R'M. UPPER LEVEL B-1
F.S. B-23-P
¾" DRAIN
BOILER R'M. C-101½ E
ENG. R'M. UPPER LEVEL B-1
F.S. B-23-S
GALLEY A-104 EL
F.S. B-14-P
PASSAGE A-103 L
F.S. B-14-S
A-104 EL
A-102 AE
TANK SPACE
CREWS W.R. A-103 L
CREWS W.R. A-101 L
PLAN OF MAIN DECK FIRE SYS.
DIST. OPER GEAR FOR THIS VALVE LOCATED IN BOILER R'M. ON MAIN DK. (S)
HOSE CONN.
20 M/M MAG. C-202 M
3" UP TO SUPER DK. (SHORE CONN.)
1½" DN. TO HOLD
BOW DOOR MACH. COMPT. A-101 EV


STARBOARD ELEVATION LOOKING TO PORT
HOLD PLAN OF FIRE & SPRINKLING SYSTEM
LEGEND
FIRE SYSTEM
DRAINAGE SYSTEM
SPRINKLING SYSTEM
GATE VALVE
GLOBE STOP VALVE
HOSE STOP VALVE
HOSE STOP CHECK VALVE
STOP CHECK VALVE
ANGLE STOP VALVE
ANGLE STOP CHECK VALVE
STOP VALVE (REMOTE CONTROL)
STRAINER
DRAINAGE EDUCTOR
ANGLE LIFT CHECK VALVE
BILGE SUCTION
ANGLE STOP VALVE (HOSE CONN)
LSM CLASS
FIRE, SPRINKLING & DRAINAGE SYSTEMS
PLATE XII

FLUSHING SYSTEM



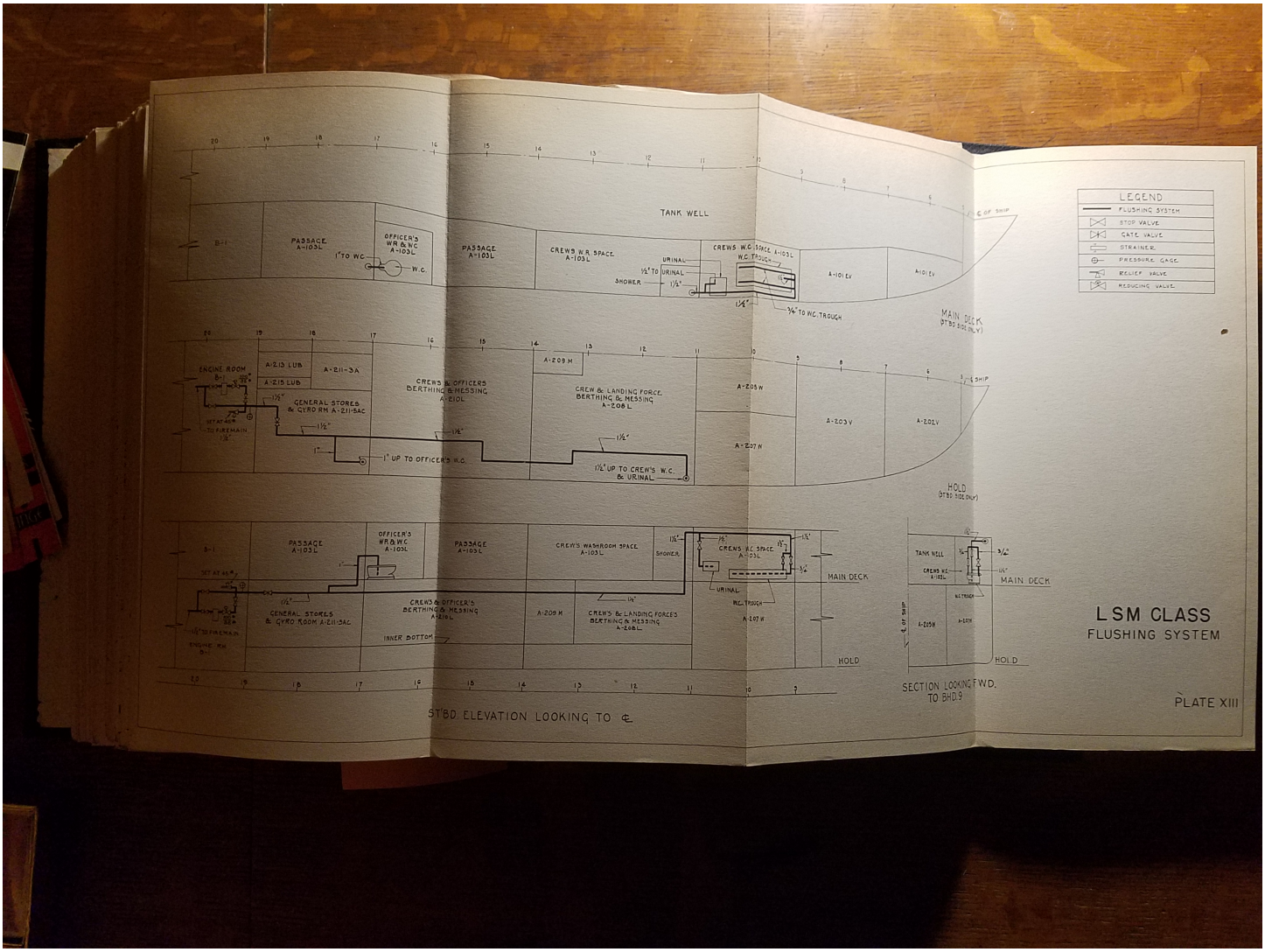
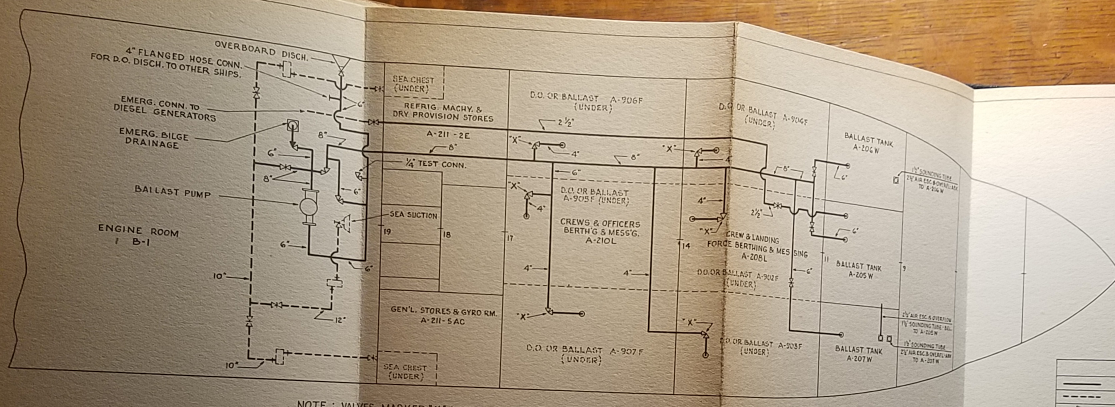

LEGEND
FLUSHING SYSTEM
STOP VALVE
GATE VALVE
STRAINER
PRESSURE GAGE
RELIEF VALVE
REDUCING VALVE
TANK WELL
PASSAGE A-103L
OFFICER'S WR & WC A-103L
1" TO W.C.
W.C.
CREWS W.R. SPACE A-103L
URINAL
1½" TO URINAL
SHOWER
1½"
CREWS W.C. SPACE A-103L
W.C. TROUGH
¾" TO W.C. TROUGH
A-101 EV
MAIN DECK
(PTBD SIDE ONLY)
ENGINE ROOM B-1
A-213 LUB
A-215 LUB
A-211-3A
GENERAL STORES & GYRO RM A-211-5AC
SET AT 45°
TO FIREMAIN
CREWS & OFFICERS BERTHING & MESSING A-210L
A-209 M
CREW & LANDING FORCE BERTHING & MESSING A-208 L
A-205 W
A-203 V
A-201 V
A-207 W
1" UP TO OFFICER'S W.C.
1½" UP TO CREW'S W.C. & URINAL
HOLD
(PTBD SIDE ONLY)
CREW'S WASHROOM SPACE A-103L
SHOWER
CREWS W.C. SPACE A-103L
URINAL
W.C. TROUGH
INNER BOTTOM
TANK WELL
CREWS W.C. A-103L
WATERTIGHT
A-205 M
A-207 M
STBD ELEVATION LOOKING TO ℄
SECTION LOOKING FWD. TO BHD. 9
LSM CLASS
FLUSHING SYSTEM
PLATE XIII

PLATE XIV

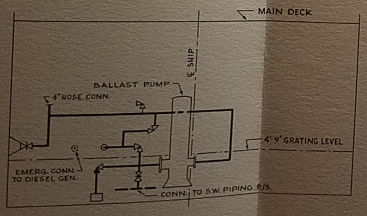
BALLAST SYSTEM



NOTE : VALVES MARKED "X" LOCKED CLOSED WHEN TANKS CONTAIN D.O. OIL.

PLAN OF HOLD

LEGEND
BALLAST PIPING
S.W. PIPING
ANGLE STOP VALVE
GATE VALVE
ANGLE STOP CHECK
MACOMB STRAINER



SECTION LOOKING FWD. TO BHD. 19

TANK DATA			
TANK NO.	LOCATION	BALLAST TONS F.O.	BALLAST TONS S.W.
A-205 W	9 - 11 ON ℄		47
A-206 W	9 - 11 PORT		44
A-207 W	9 - 11 STBD.		44
A-902 F	11 - 14 ON ℄	15	18
A-903 F	11 - 14 STBD.	15	18
A-904 F	11 - 14 PORT	15	18
A-905 F	14 - 17 ON ℄	16	19
A-906 F	14 - 17 PORT	16	20
A-907 F	14 - 17 STBD.	16	20

PUMP DATA				
AUXILIARY	NO. OF UNITS	DRIVE	CAPACITY G.P.M.	DISCHARGE PRESSURE
CLEAN BALLAST PUMP	1	CENTRIFUGAL	1500	25 P.S.I.

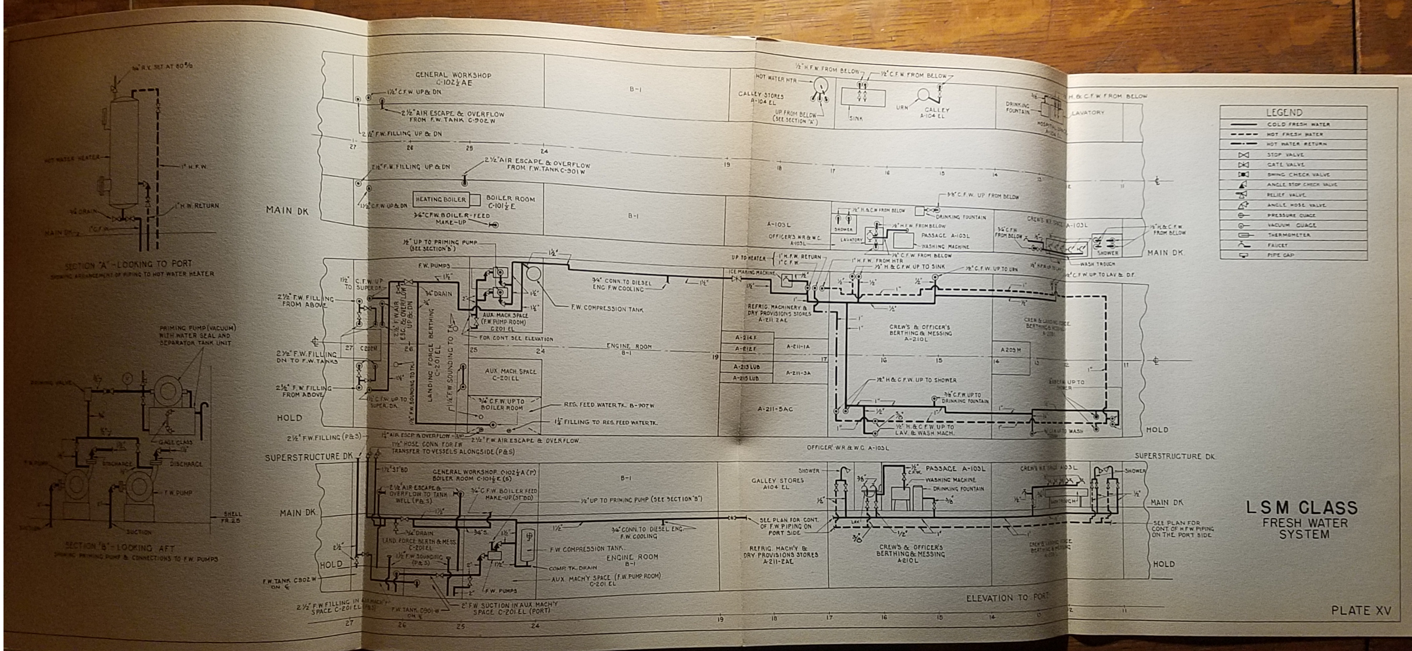
LSM CLASS

BALLAST SYSTEM

PLATE XIV

PLATE XV

FRESH WATER SYSTEM


LEGEND
COLD FRESH WATER
HOT FRESH WATER
HOT WATER RETURN
STOP VALVE
GATE VALVE
SWING CHECK VALVE
ANGLE STOP CHECK VALVE
RELIEF VALVE
ANGLE HOSE VALVE
PRESSURE GUAGE
VACUUM GUAGE
THERMOMETER
FAUCET
PIPE CAP
SECTION "A" - LOOKING TO PORT
SECTION "B" - LOOKING AFT
GENERAL WORKSHOP
BOILER ROOM
ENGINE ROOM
AUX. MACH SPACE
CREW'S & OFFICER'S BERTHING & MESSING
GALLEY STORES
F.W. COMPRESSION TANK
MAIN DK
HOLD
SUPERSTRUCTURE DK
ELEVATION TO PORT
LSM CLASS
FRESH WATER SYSTEM
PLATE XV

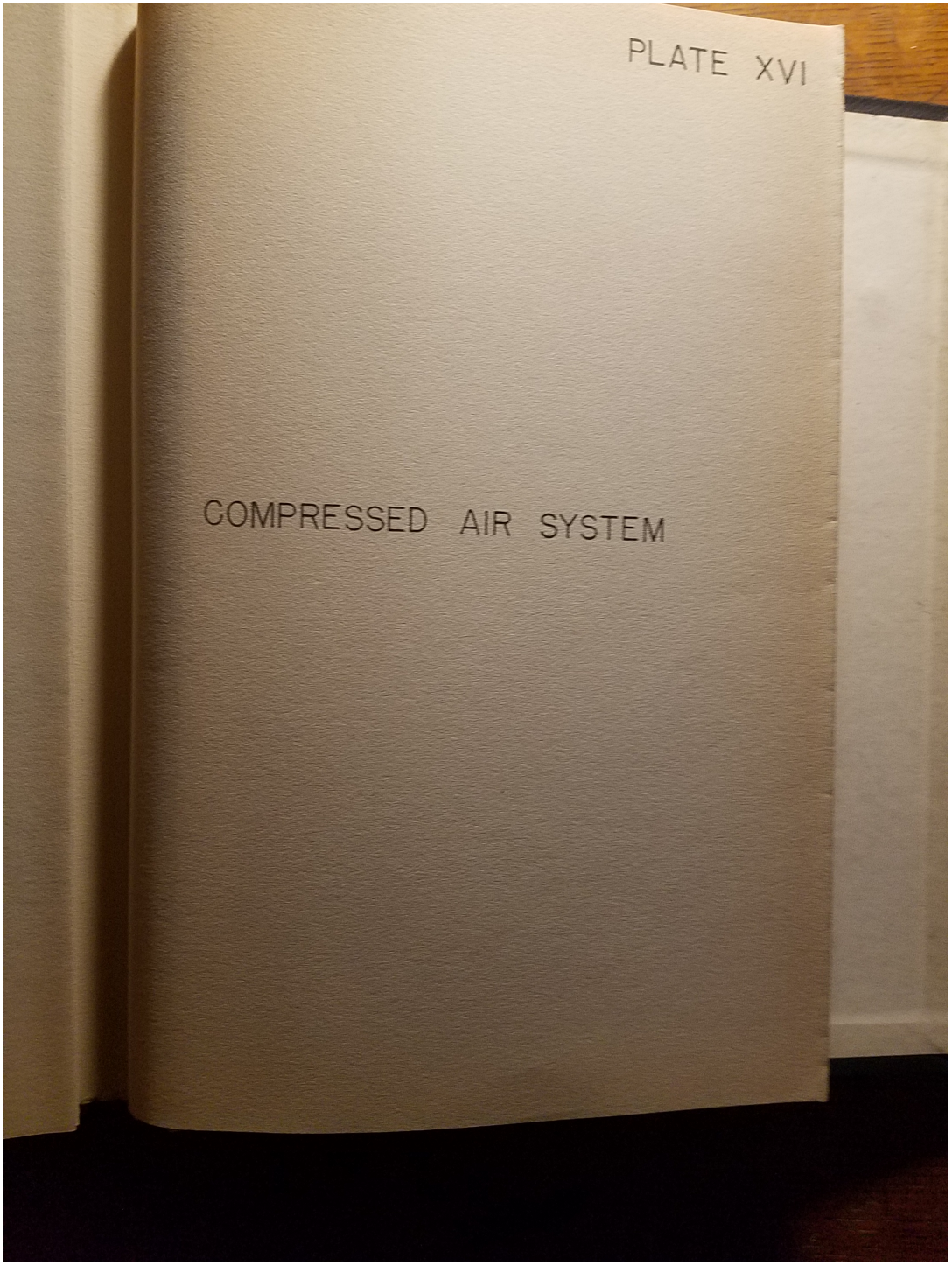
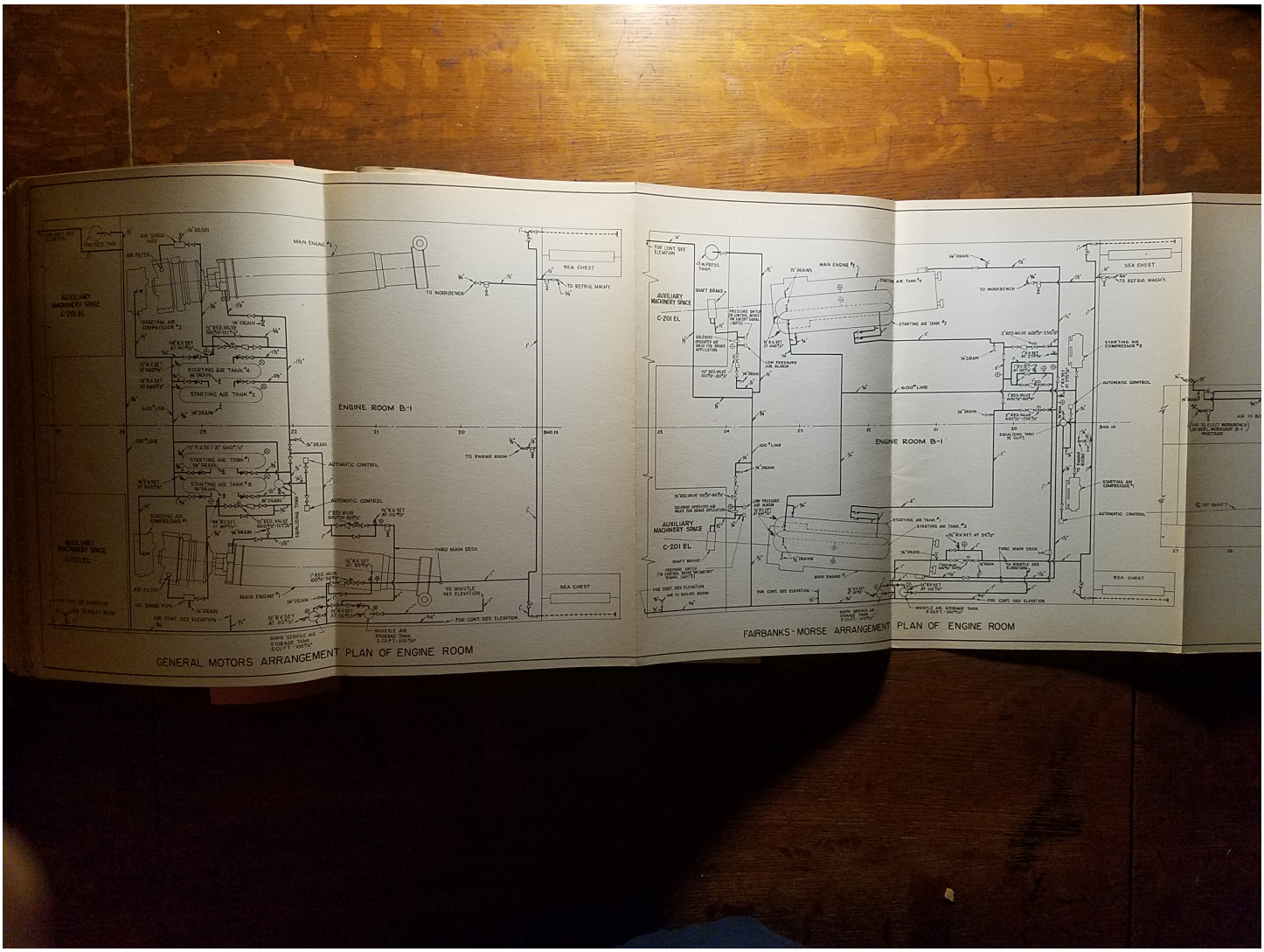
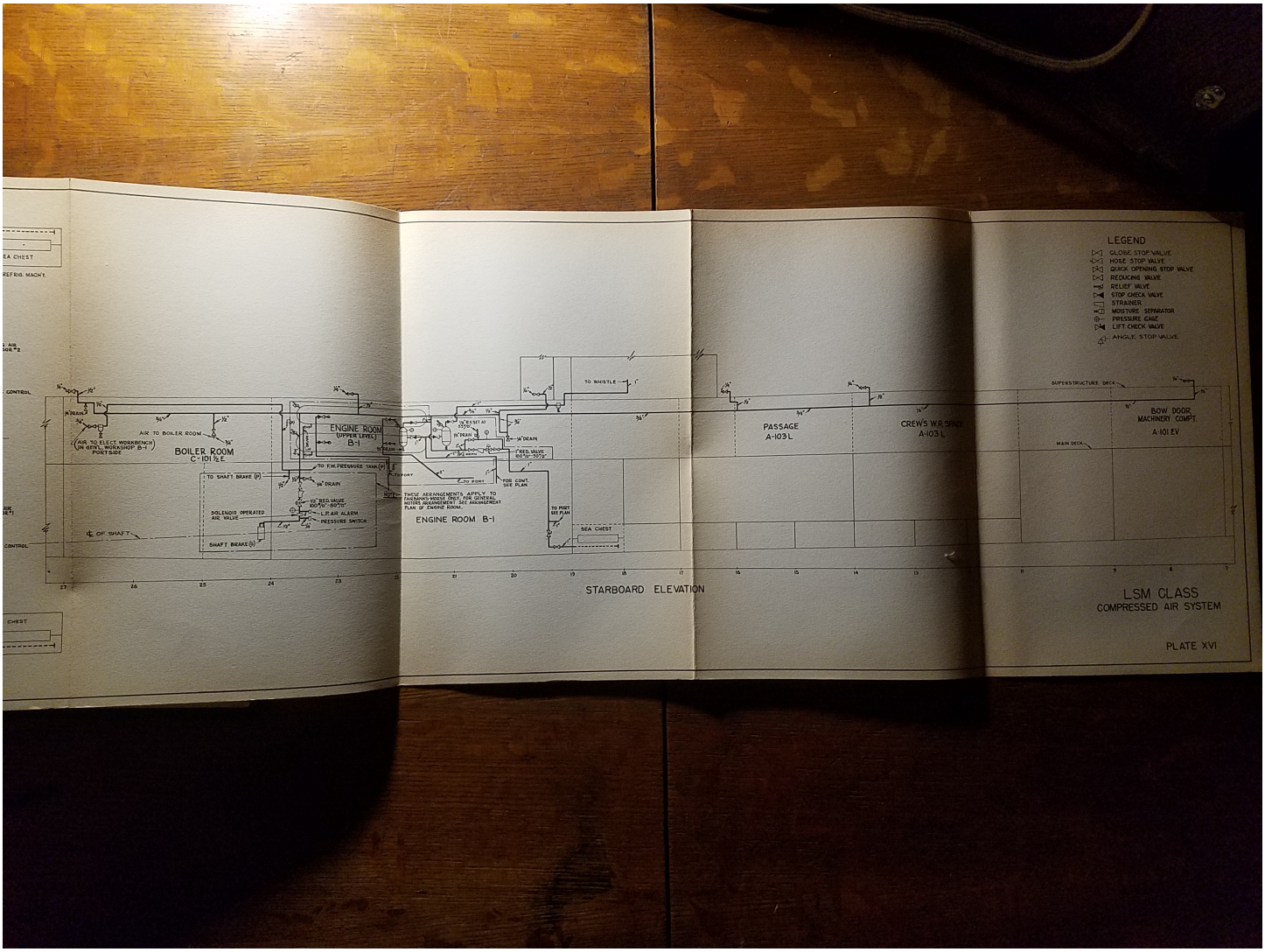


PLATE XVI
COMPRESSED AIR SYSTEM


AUXILIARY MACHINERY SPACE C-201 EL
ENGINE ROOM B-1
MAIN ENGINE #2
STARTING AIR TANK #4
STARTING AIR TANK #2
STARTING AIR TANK #1
STARTING AIR TANK #3
STARTING AIR COMPRESSOR #2
STARTING AIR COMPRESSOR #1
AUTOMATIC CONTROL
SEA CHEST
TO WORKBENCH
TO REFRIG. MACHY.
TO ENGINE ROOM
THRU MAIN DECK
TO WHISTLE SEE ELEVATION
FOR CONT. SEE ELEVATION
SHAFT BRAKE
MAIN ENGINE #1
GENERAL MOTORS ARRANGEMENT PLAN OF ENGINE ROOM
FAIRBANKS-MORSE ARRANGEMENT PLAN OF ENGINE ROOM


LEGEND
GLOBE STOP VALVE
HOLE STOP VALVE
QUICK OPENING STOP VALVE
REDUCING VALVE
RELIEF VALVE
STOP CHECK VALVE
STRAINER
MOISTURE SEPARATOR
PRESSURE GAGE
LIFT CHECK VALVE
ANGLE STOP VALVE
BOILER ROOM
C-101½E
AIR TO BOILER ROOM
AIR TO ELECT WORKBENCH (IN GEN'L WORKSHOP B-1 PORT SIDE
ENGINE ROOM (UPPER LEVEL) B-1
TO WHISTLE
TO SHAFT BRAKE (P)
TO SHAFT BRAKE (S)
SOLENOID OPERATED AIR VALVE
PRESSURE SWITCH
L.P. AIR ALARM
SEA CHEST
TO FIRE SEE PLAN
PASSAGE A-103 L
CREWS W.R. SPACE A-103 L
SUPERSTRUCTURE DECK
MAIN DECK
BOW DOOR MACHINERY COMPT A-101 EV
STARBOARD ELEVATION
ENGINE ROOM B-1
LSM CLASS
COMPRESSED AIR SYSTEM
PLATE XVI

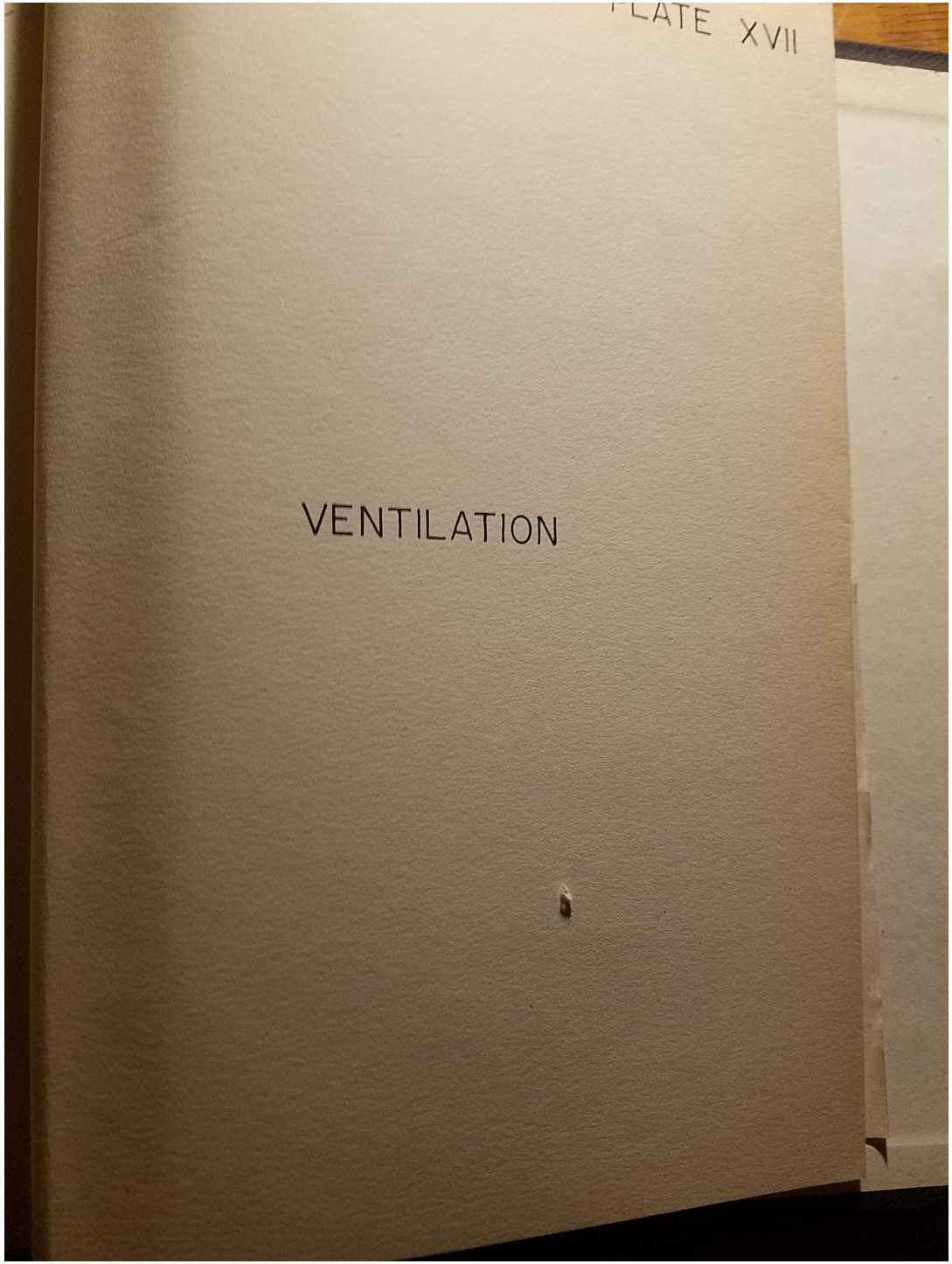
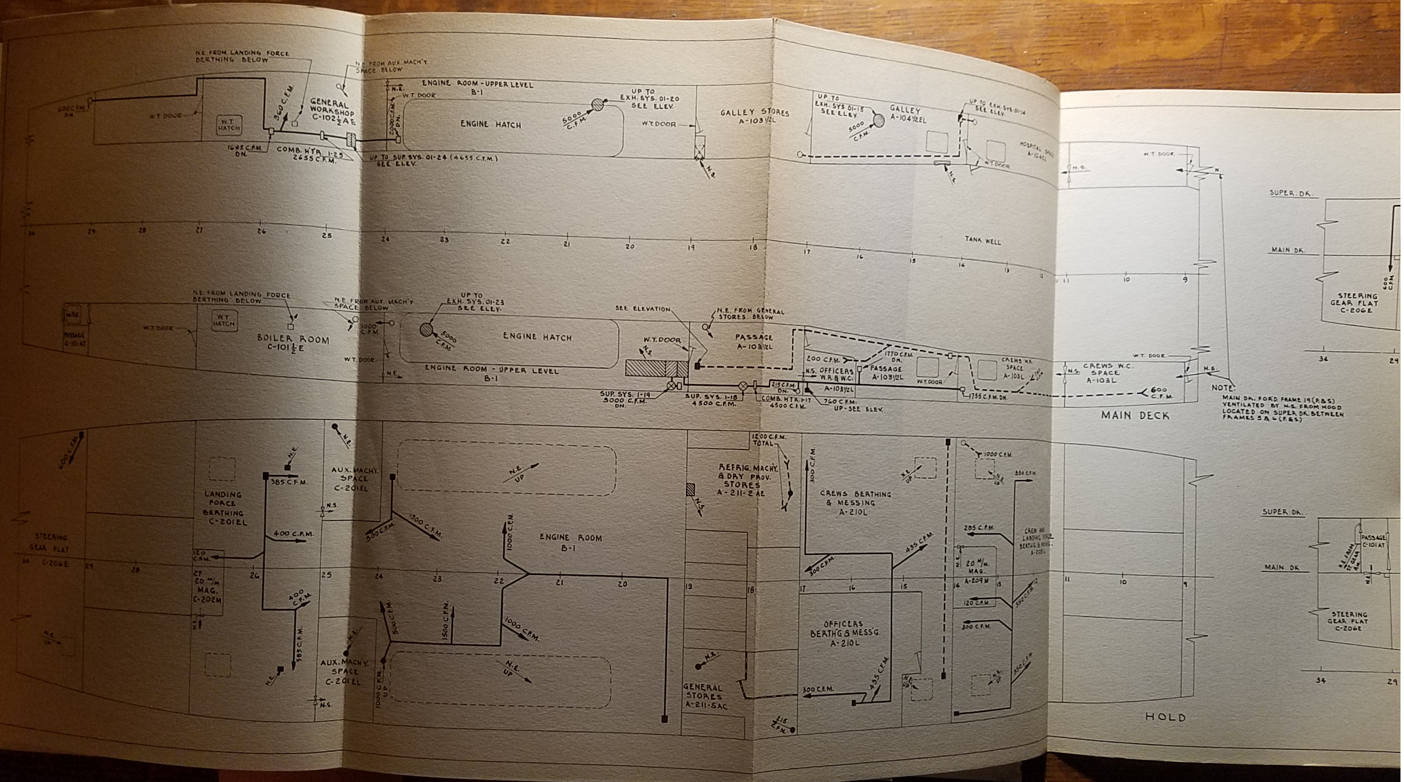


PLATE XVII
VENTILATION


GENERAL WORKSHOP
ENGINE ROOM - UPPER LEVEL
B-1
ENGINE HATCH
GALLEY STORES
GALLEY
TANK WELL
SUPER DK.
MAIN DK.
STEERING GEAR FLAT
BOILER ROOM
ENGINE HATCH
ENGINE ROOM - UPPER LEVEL
B-1
PASSAGE
OFFICERS W.R. & W.C.
CREWS W.C. SPACE
MAIN DECK
LANDING FORCE BERTHING
AUX. MACH'Y SPACE
ENGINE ROOM
B-1
REFRIG. MACHY. & DRY PROV. STORES
CREWS BERTHING & MESSING
A-210L
OFFICERS BERTH'G & MESS'G
A-210L
GENERAL STORES
AUX. MACH'Y SPACE
HOLD

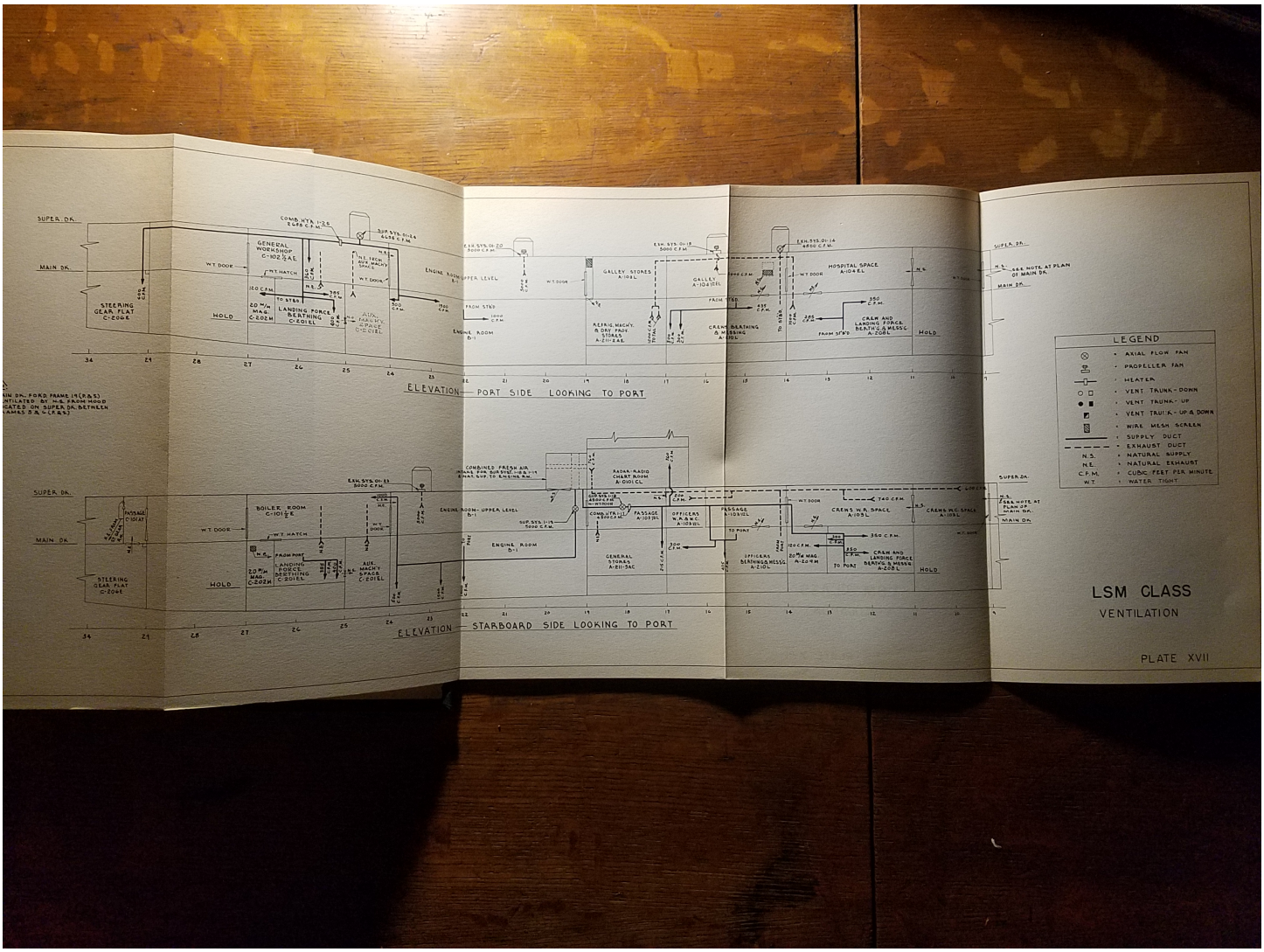
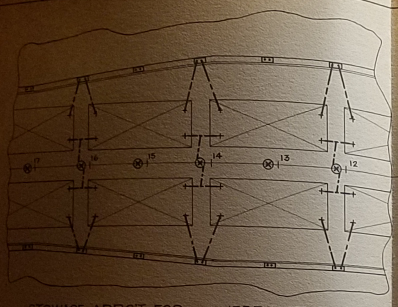
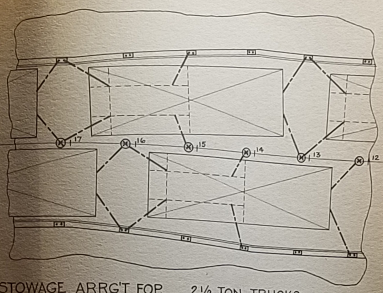

ELEVATION — PORT SIDE LOOKING TO PORT
ELEVATION — STARBOARD SIDE LOOKING TO PORT
LEGEND
AXIAL FLOW FAN
PROPELLER FAN
HEATER
VENT TRUNK - DOWN
VENT TRUNK - UP
VENT TRUNK - UP & DOWN
WIRE MESH SCREEN
SUPPLY DUCT
EXHAUST DUCT
N.S. NATURAL SUPPLY
N.E. NATURAL EXHAUST
C.F.M. CUBIC FEET PER MINUTE
W.T. WATER TIGHT
LSM CLASS
VENTILATION
PLATE XVII

PLATE XVIII

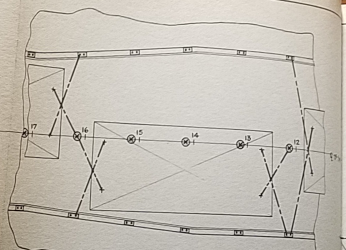
VEHICLE LASHING ARRANGEMENT AND DETAILS



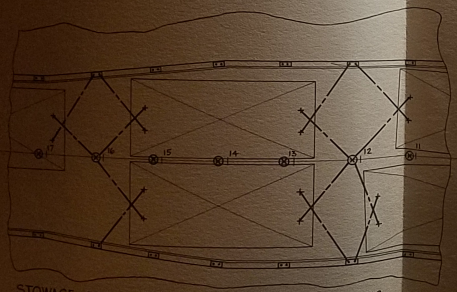
STOWAGE ARRG'T FOR JEEPS OR AUSTIN 8's
STOWED DOUBLE FILE ENDING AT FR. 8 AS SHOWN P/S



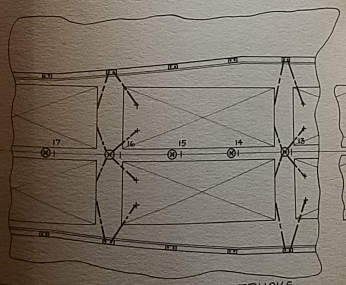
STOWAGE ARRG'T FOP 2½ TON TRUCKS
STOWED DOUBLE FILE AS SHOWN P/S.



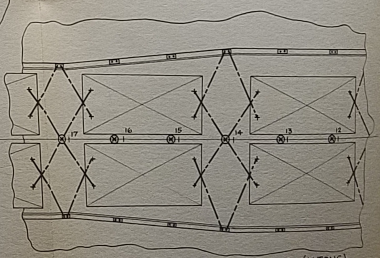
STOWAGE ARRG'T. FOR T-1 TANKS (49 TONS)
FIRST TANK FWD. STOWED ON ℄ OF SHIP & THE OTHER
STOWED SINGLE FILE & STAGGERED AS SHOWN. P/S



STOWAGE ARRG'T FOR M4A4 TANKS 31 TONS
FIRST TWO TANKS FWD. STOWED TOE IN TOWARD RAMP & THE
NEXT TWO STOWED SIDE BY SIDE. THE OTHER ARE
STOWED SINGLE FILE STAGGERED AS SHOWN P/S.



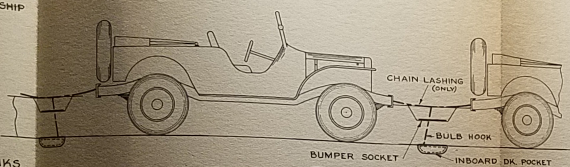
STOWAGE ARRG'T FOR 1½ TON TRUCKS
FRONT END OF FIRST TWO TRUCKS STOWED AT FR 10
&THE OTHER TRUCKS STOWED DOUBLE FILE AS SHOWN P/S



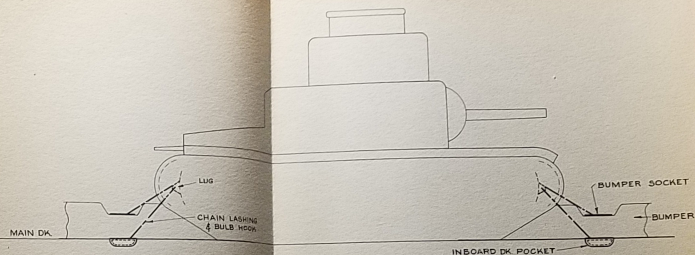
STOWAGE ARRG'T FOR M-3 TANKS (14TONS)
FIRST TWO TANKS FWD. STOWED TOE IN TOWARD RAMP & THE
OTHER TANKS STOWED DOUBLE FILE AS SHOWN P/S

NOTE!
VEHI
TO L

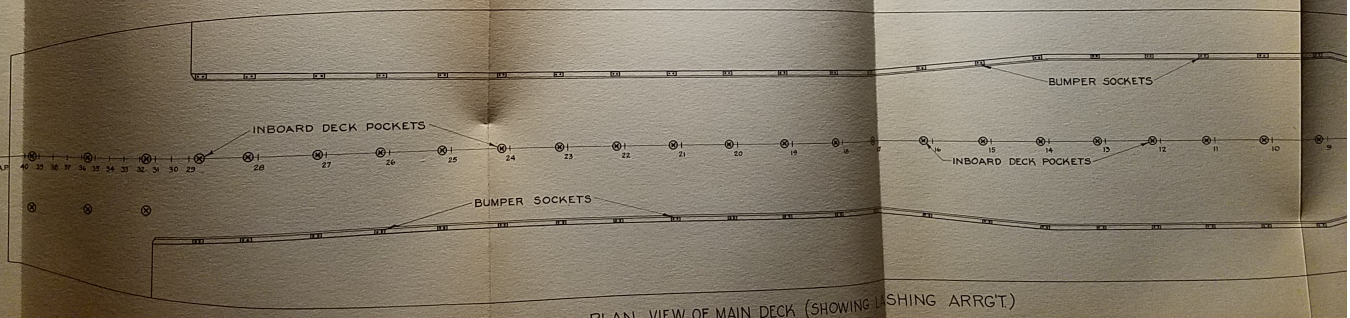
NOTE!
VEHICLES TO BE WELL CHOCKED & BRACED IN ADDITION TO LASHING.



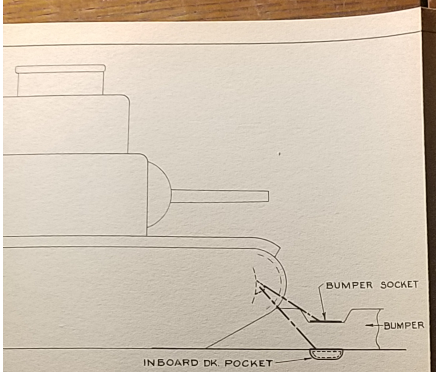
TYPICAL
JEEP STOWAGE - LONGITUDINALLY



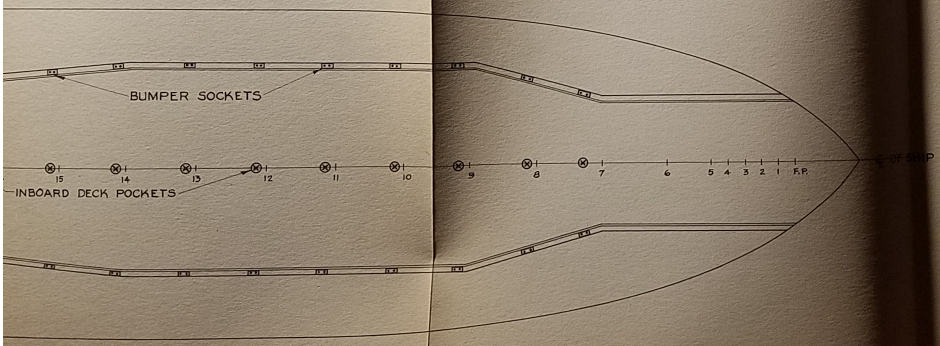
TYPICAL
TANK STOWAGE - LONGITUDINALLY



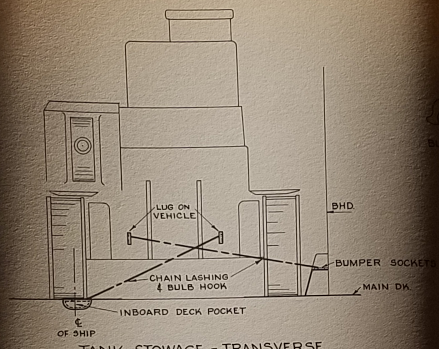
PLAN VIEW OF MAIN DECK (SHOWING LASHING ARRG'T.)



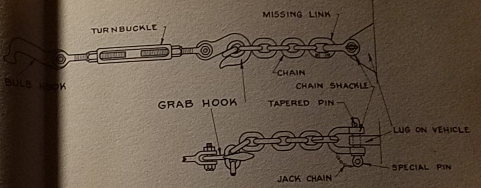
AL
- LONGITUDINALLY



ARRG'T.)



TANK STOWAGE - TRANSVERSE

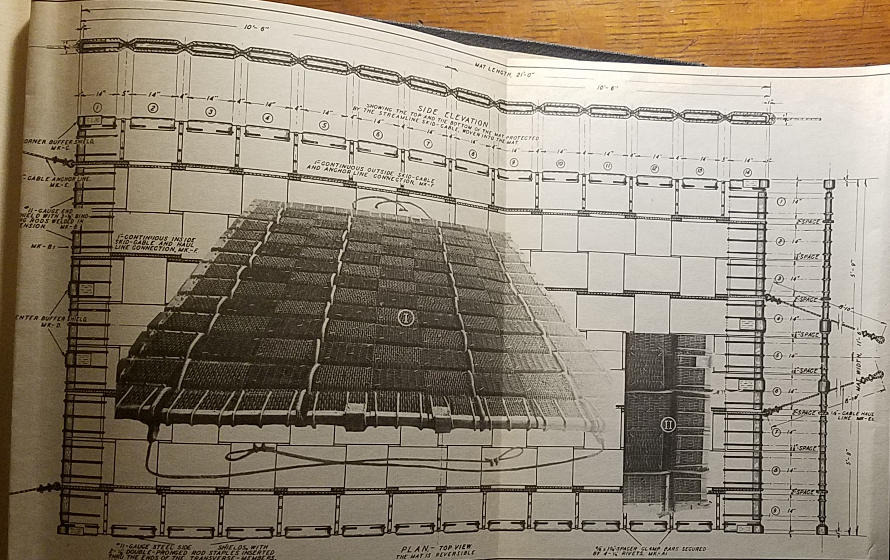


CHAIN LASHING ASSEMBLY

LSM CLASS

VEHICLE LASHING ARRANGEMENT AND DETAILS

PLATE XVIII

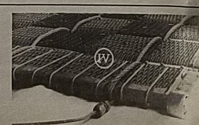


Photograph No. I: The Heavy Duty Woven Wire Mat completely fabricated, painted and ready to be rolled onto core for transportation. The Mat as completed has a width of 11'6" and a length of 21'0" and weighs 3029 lbs., with a cubicle (roll) displacement of 100 cubic feet. (40" diameter x 11'6" long.)

Photograph No. II: Showing the pattern of the weave, the location of the 1" skid cables (Refer to description of MK-F) and the method of anchoring the ends of the longitudinal members around the end transverse members. (Refer to description of MK-B.)

Photograph No. III: Showing the method of fabricating the ends of the transverse members, or the side-shields. (Refer to description MK-A.) Also, the location of the Spacer Bar-clamps described as MK-A1.

Photograph No. IV: Showing the Corner Buffer Plate. (Refer to description of MK-C) and the location and method of connecting the ½" Anchor Line (MK-E) to the outside Skid Cable cable (MK-F).



ASSEMBLY DESCRIPTION

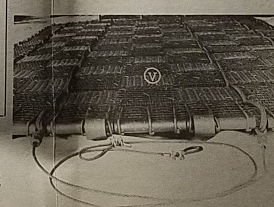
Heavy Duty Woven Wire Mat
Refer to Drawing and Photographs

Both the transverse and the longitudinal members are woven "over and under" in either direction, with spacings as shown on drawings, and are held securely in position by ¼" steel stitches at each intersection.

All the transverse members of the mat (14 members) consist of six (6) 14" width woven wire bands closely nested and wire stretched in a "plank-like" unit. Refer to photograph VIII.) They are then woven "over-and-under" the inner longitudinal members throughout the mat. The outside transverse members, (Nos. 1 and 14) act as tie-offs or anchors for the longitudinal members.

The outside longitudinal members (Nos. 1 and 9) are a continuous single-ply 14" width band, extending around each end of the mat over the tops of the transverse members and coming together on the under center of the mat with a three-foot lap splice; thus making a top and bottom or double outside member. These top and bottom outside members are clipped to the transverse members with a standard end-connection. After the transverse members are clipped in their correct spacings, a spacer bar-clamp is used to clamp the top and bottom outside longitudinal members together at each space between the transverse members. (Refer to photograph III and drawing MK-A1.)

The inner longitudinal members, (Nos. 2-3-4-5-6-7-8) are a single-ply 14" width band woven "over-and-under" the transverse members. They are then folded around the end transverse members back onto themselves, where they are each securely anchored under the End Shields by three ½" steel binding rods welded under tension. (Refer to photograph and drawing MK-B.)



Photograph No. V: Showing the method of armoring the leading edges of the Mat (Refer to description of MK-B) and the location of the Center Buffer Shields (MK-D). Also, the method of connecting the ½" Haul Lines (MK-E 1) to the 1" Skid Cables (MK-F).

HEAVY DUTY WOVEN WIRE MAT —BASKET WEAVE TYPE

Specifications for the woven wire bands used in the mat

Description:

The mat is composed of 14" width woven wire bands, each band consisting of twenty-four #9½ gauge longitudinal wires spaced 19/32 of an inch apart and of #10 gauge transverse wires spaced approximately 2 inches apart. The transverse wires are woven, over and under the longitudinal wires and the ends crimped around the outside longitudinal wires.

Physical Specifications of the Wire:

The longitudinal wires in the woven wire band shall develop a minimum tensile strength of 190,000 pounds per square inch.

The transverse wires shall develop a minimum tensile strength of 130,000 pounds per square inch.

Both the longitudinal and the transverse wires shall be capable of being bent cold around a pin of their own diameter without fracture.

Chemical Specifications of the Wire:

The wire in the woven wire bands shall be cold drawn from steel having the following chemical properties:

	Minimum to	Maximum
Carbon	.55	.65
Manganese	.90	1.10
Phosphorus	under	.04
Sulphur	under	.05
Silicon	.10	.20

HEAVY DUTY WOVEN WIRE MATS.
U.S. NAVY SPECIFICATIONS.

DESIGN AND DRAWINGS BY:- [signature]

CHECKED BY:- [signature]
Lieut. John S. Eversole USNR
Bureau of Ships - Landing Craft

PHOTOSTATIC ARRANGEMENTS BY:- [signature]

MANUFACTURERS

Basic Materials	Fabrication
Pittsburgh Steel Company	Tri-State Engineering Co.
Pittsburgh, Pa.	Washington, Pa.
[signature]	[signature]

DRAWING NUMBER 118-A. SERIES No 6. JUNE 5,- 1943.
ASSIGNED TO:-
Bureau of Ships - Landing Craft