

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 14 JUN 1947

Date of writing Report 30<sup>th</sup> May 1947 When handed in at Local Office 11-6-47 Port of BELFAST

No. in Survey held at Belfast Date, First Survey 22 Aug 1946 Last Survey 29 May 1947  
Reg. Book. (Number of Visits 25)

87888 on the ss. "LOCHGARTH" Tons { Gross 8617  
Net 5131

Built at Belfast By whom built Messrs Harland & Wolff Ltd. Yard No. 1328 When built 1946-47

Owners Royal Mail Lines Ltd. Port belonging to London

Electrical Installation fitted by Messrs Harland & Wolff Ltd. Contract No. 1328 When fitted 1946-47

Is vessel fitted for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. No

Have plans been submitted and approved Yes System of Distribution Two wire Voltage of supply for Lighting 220

Heating 220 Power 220 Direct or Alternating Current, Lighting Direct Power Direct Alternating Current state periodicity Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off Yes Are turbine emergency governors fitted with a

trip switch as per Rule Yes Generators, are they compound wound Yes are they level compounded under working conditions Yes

If not compound wound state distance between generators and from switchboard Where more than one generator is fitted are they

arranged to run in parallel Yes are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole

negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes Have certificates of

test for machines under 100 kw. been supplied and the results found as per rule Yes Are the lubricating arrangements and the construction

of the generators as per rule Yes Position of Generators 2 Diesel Generators Starboard Tank Top 1 Turbo

Generator Port Tank Top is the ventilation in way of generators satisfactory Yes are they clear of inflammable material Yes if situated

near unprotected combustible material state distance from same horizontally and vertically are the generators protected from mechanical

injury and damage from water, steam and oil Yes are the bedplates and frames earthed Yes and the prime movers and generators in metallic

contact Yes Switchboards, where are main switchboards placed Motor Room aft. at Lower Deck Level

are they in accessible positions, free from inflammable gases and acid fumes Yes are they protected from mechanical injury and damage from water, steam

and oil Yes if situated near unprotected combustible material state distance from same horizontally and vertically what insulation

material is used for the panels Sindango if of synthetic insulating material is it an Approved Type Yes if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Is the frame effectually earthed Yes

Is the construction as per Rule Yes including accessibility of parts Yes absence of fuses on the back of the board Yes individual fuses

to pilot and earth lamps, voltmeters, etc. Yes locking of screws and nuts Yes labelling of apparatus and fuses Yes fuses on the "dead"

side of switches Yes Description of Main Switchgear for each generator and arrangement of equaliser switches 2-1500 amp circuit

Breaker D.P. with E.C. Switch. O/L, T/L & Reverse current for 2 Diesel Generators and 1-3000 amp

circuit Breaker D.P. with E.C. Switch. O/L, T/L & Reverse current for the Turbo Generator

and for each outgoing circuit 250 amps and over D.P. overload circuit breakers with time lag

Under 250 amps D.P., S.T., Q.B., Knife Switch

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 12

ammeters 2 voltmeters synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection Yes Earth Testing, state means provided 2 Lamp system with D.P. switch and fuses

Switches, Circuit Breakers and Fuses, are they as per Rule Yes are the fuses an approved type Yes are all fuses labelled as

per Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested 1400A N1

protection devices connected on the pole opposite to the equaliser connection Yes have they been tested under working conditions, and at what current

did they operate 1500A N2 1400A N3 4000A N5 are the reversed current

Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule Yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules Yes if otherwise than as per Rule are they of an approved type

state maximum fall of pressure between bus bars and any point under maximum load 12.8 Volts are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends Yes



with insulating compound or waterproof insulating tape. Yes Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage. Yes Are cables laid under machines or floorplates. Yes if so, are they adequately protected. Yes Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. State how the cables are supported and protected. Lead covered cable clipped to perforated plating and bulkhead in accommodation etc. in wood cleats in troughing across open deck and in galvanised iron pipes to winches

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Refrigerated chambers, are the cables and fittings as per Rule. Yes

Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. Yes where unarmoured cables pass through beams, etc., are the holes effectively bushed. Yes and with what material. Lead Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes Emergency Supply, state position. — and method of control. —

Navigation Lamps, are they separately wired. Yes controlled by separate double pole switches. Yes and fuses. Yes Are the switches and fuses in a position accessible only to the officers on watch. Yes is an automatic indicator fitted. Yes Secondary Batteries, are they constructed and fitted as per Rule. Yes are they adequately ventilated. Yes what is the battery capacity in ampere hours. 150

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. Yes Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. No if so, how are they protected. —

are all fittings suitably ventilated. Yes and where are the controlling switches fitted. — are all fittings constructed and installed as per Rule. Yes Searchlight Lamps, No. of. — whether fixed or portable. — are their fittings as per Rule. —

Heating and Cooking, is the general construction as per Rule. Yes are the frames effectually earthed. Yes are heaters in the accommodation of the convection type. Yes Motors, are all motors constructed and installed as per Rule. Yes and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil. Yes if situated near unprotected combustible material state minimum distance from same horizontally. — and vertically. — Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment. Yes

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. — Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. Yes Control Gear and Resistances, are they constructed and fitted as per Rule. Yes Lightning Conductors, where required are they fitted as per Rule. — Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with. — are all fuses of the cartridge type. —

Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. — Are the cables lead covered as per Rule. — Spare Gear, if the vessel is for open sea service have spares been provided as per Rule. Yes are they suitably stored in dry situations. Yes Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. Yes

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	300	225	1334	420	6 cylinder Diesel Engine	Diesel Oil	150°F (minimum)
	1	600	225	2666	750	Turbine Engine	—	—
EMERGENCY	—	—	—	—	—	—	—	—
ROTARY TRANSFORMER	—	—	—	—	—	—	—	—

GENERATOR CABLES.

DESCRIPTION	KILOWATTS	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (feet plus return feet).	INSULATED WITH	HOW PROTECTED.
		No. in Parallel	Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR NO. 1	600	3	4 x 1/4	2666	3150	72	Rubber	insulation in protective casing
EQUALISER NO. 1	—	2	4 x 1/4	—	2300	72	Rubber	insulation in protective casing
Main Generator NO. 2	300	3	9/1-103	1334	1383	75	Rubber	H.R.
Main Generator NO. 3	300	3	9/1-103	1334	1383	80	Rubber	H.R.
" " Equaliser NO. 2	—	2	9/1-103	—	922	75	Rubber	H.R.
" " " NO. 3	—	2	9/1-103	—	922	80	Rubber	H.R.
EMERGENCY GENERATOR	—	—	—	—	—	—	—	—
ROTARY TRANSFORMER MOTOR	—	—	—	—	—	—	—	—
" " GENERATOR	—	—	—	—	—	—	—	—

Lighting & Heating, Etc. Cables (cont.)

Description	No. in Parallel	Conductors	Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES	APPROX. LENGTH (feet plus return feet).	INSULATED WITH	HOW PROTECTED.
Lighting Dist. Box No. 17	1	7/029	7	15	650	Rubber	H.R.
S & F Box No. 18 Refrig. Fans	1	19/052	26	14	180	Do.	Do.
Large Lighting Boxes Nos. 19 and 30	1	19/052	55.5	64	430	Do.	Do.
Do Do Box No. 21	1	7/036	18.2	24	228	Do.	Do.
S & F Box No. 22	1	7/064	40.2	46	184	Do.	Do.
Dist. Box No. 23 Heating	1	19/064	57	83	156	Do.	Do.
Heating Dist. Box No. 24	1	19/064	68	83	92	Do.	Do.
Lighting Dist. Box No. 25	1	7/029	13.7	15	104	Do.	Do.
Heating Dist. Box No. 26	1	19/064	68	83	84	Do.	Do.
Lighting Dist. Box No. 27	1	7/029	11.4	15	40	Do.	Do.
Heating Dist. Box No. 28	1	19/052	57	64	40	Do.	Do.
Large Lighting Dist. Box No. 29	1	7/036	5.6	24	68	Do.	Do.
Heating Dist. Box No. 31	1	7/044	27	31	400	Do.	Do.
Lighting Dist. Box No. 34	1	7/029	13.7	15	200	Do.	Do.
S & F Box No. 36 Refrig. Fans	1	37/072	124	152	80	Do.	Do.
S & F Box No. 37 Brine Healer	1	37/072	148.5	152	32	Do.	Do.
S & F Box No. 38 Refrig. Fans	1	19/064	56	83	196	Do.	Do.
Lighting Dist. Box No. 39	1	7/029	7	15	400	Do.	Do.
E.R. Lighting Dist. Box No. 40	1	7/029	11.5	15	132	Do.	Do.
Do Do Do Do No. 41	1	7/029	9.7	15	112	Do.	Do.
Do Do Do Do No. 42	1	7/029	13.4	15	168	Do.	Do.
Do Do Do Do No. 43	1	7/029	4.7	15	30	Do.	Do.
Section Box No. 44 E.R. Lighting	1	19/052	60	64	120	Do.	Do.
S & F Box No. 45 Ventilation	1	19/064	60	83	45	Do.	Do.
S & F Box No. 46 Vacuum Refrig.	1	7/064	4.5	46	120	Do.	Do.
S & F Box No. 48 L.O. Purifiers	1	7/029	8.4	15	60	Do.	Do.
S & F Box No. 47 Workshop	1	7/044	29.8	31	210	Do.	Do.
S & F Box No. 49 Ventilation	1	19/064	60	83	45	Do.	Do.

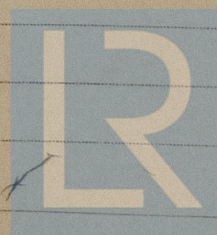
Motor Cables (cont.)

all Important Motors to Be enumerated	No	B.H.P.							
Edible Cargo Oil Pump	1	21	1	19/064	82	83	✓ 140	Do.	Do.
Air compressor (Diesel)	1	4.5	1	7/044	30	31	✓ 100	Do.	Do.
Diesel Oil Transfer Pump	1	2.25	1	7/029	11	15	✓ 120	Do.	Do.
Low Boiler Blower	1	3	1	7/029	13	15	✓ 120	Do.	Do.
Boiler blower d.f.p.	1	1	1	3/029	5	5	✓ 90	Do.	Do.
Supply Fans	3	3.5	1	7/029	14	15	✓ 150	Do.	Do.
Supply Fan	1	4.5	1	7/036	17	24	✓ 240	Do.	Do.
Supply Fan	1	0.5	1	2c3/029	2.8	5	✓ 180	Do.	Do.
Dri-Hold Vent Units	6	2.0	1	3/036	9	10	✓ 180	Do.	Do.
Propellor Exhaust Fan	1	0.5	1	2c3/029	2.8	5	✓ 180	Do.	Do.
17½" Refrig Fans	2	1.75	1	3/036	8	10	✓ 150	Do.	Do.
23" Refrig Fans	6	3	1	7/029	13	15	✓ 160	Do.	Do.
25" Refrig Fans	4	5	1	7/036	21	24	✓ 180	Do.	Do.
27½ Refrig Fans	4	5.75	1	7/044	23	31	✓ 180	Do.	Do.
L.O. 2 Compressors	3	85	1	61/103	330	332	✓ 90	Do.	Do.
Large Brine Pumps	4	7	1	7/044	31	31	✓ 24	Do.	Do.



Motor cables (cont.)									
All Important Motors to be enumerated	No	B.H.P.	Conductors		Maximum Current in circuit	Approximate Length (feet plus Return H)	Insulated Vult.	How Protected	
			No in parallel per cable	Section or size of conductors					
Small Brine Pump	1	4	1	7/036	165	24 ✓ 24	Rubber	H.R.	
Portable Boat Winch	2	6	1	7/036	24	24 ✓ 100	Do.	Do.	
Domestic Refrigerators	3	0.5	1	3/029	2.8	5 ✓ 45	Do.	Do.	

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Lloyd's Register  
Foundation



## MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS ...							
Masterboard "A" Winches	1	37/0.93	210	214 ✓	352	Rubber	H.R.
Masterboard "B" Domestic	1	37/1.03	204	240 ✓	150	Do.	Do.
Masterboard "B" Heating & Ventilation	2	91/0.93	753	768 ✓	150	Do.	Do.
Masterboard "B" Lighting	1	37/0.93	204	214 ✓	150	Do.	Do.
Masterboard "C" Winches & Windlass	1	61/0.93	265	288 ✓	600	Do.	Do.
Masterboard "D" Winches	1	127/0.93	487	512 ✓	360	Do.	Do.
Masterboard "E" Compressors	2	91/1.03	860	922 ✓	420	Do.	Do.
Masterboard "E" Refrig. Tanks, Brine Pumps	1	127/1.03	510	595 ✓	420	Do.	Do.
Masterboard "F" E.R. Auxiliaries Etc.	1	61/0.93	268	288 ✓	60	Do.	Do.
Masterboard "G" E.R. Auxiliaries Unass.	1	61/0.93	171	288 ✓	60	Do.	Do.
Masterboard "G" E.R. Auxiliaries Unass.	1	61/0.93	285	288 ✓	60	Do.	Do.
Masterboard "G" E.R. Auxiliaries Etc.	1	61/0.93	279	288 ✓	60	Do.	Do.

## LIGHTING AND HEATING, ETC., CABLES.

WIRELESS ...	1	19/0.64	30	83 ✓	270	Rubber	H.R.
NAVIGATION LIGHTS S & Z Box No 1 & 1A	1	19/0.62	36	64 ✓	480	Do.	Do.
LIGHTING AND HEATING Dist. Box No 2...	1	7/0.64	37	46 ✓	355	Do.	Do.
Heating Dist. Box No 3	1	7/0.64	49	46 ✓	320	Do.	Do.
Lighting Dist. Box No 4	1	7/0.29	9	15 ✓	320	Do.	Do.
Heating Dist. Box No 5	1	7/0.64	37	46 ✓	305	Do.	Do.
Heating Dist. Boxes Nos 6, 6A, 6B.	1	19/0.64	77	83 ✓	245	Do.	Do.
Lighting Dist. Box No 7	1	7/0.29	11	15 ✓	260	Do.	Do.
Heating Dist. Box No 8	1	7/0.64	43	46 ✓	208	Do.	Do.
Lighting Dist. Box No 9.	1	7/0.29	8	15 ✓	208	Do.	Do.
S & Z Box No 10	1	19/0.83	84	118 ✓	138	Do.	Do.
S & Z Box No 11	1	19/0.52	58	64 ✓	144	Do.	Do.
S & Z Box No 12	1	7/0.36	20	24 ✓	144	Do.	Do.
Heating Dist. Box No 13	1	19/0.64	68	83 ✓	80	Do.	Do.
Lighting Dist. Box No 14	1	7/0.29	12	15 ✓	76	Do.	Do.
Heating Dist. Box No 15	1	19/0.72	68	97 ✓	12	Do.	Do.
Lighting Dist. Box No 16	1	7/0.29	13	15 ✓	12	Do.	Do.

## MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Main Circulating Pump	2	77	1	61/1.03	290	332 ✓	180	Do.
Steering Gear	2	55	1	37/1.03	212	240 ✓	540	Do.
Induced Draught Fan	2	36	1	37/0.72	137	152 ✓	450	Do.
Forced Draught Fan	2	33	1	37/0.64	127	130 ✓	390	Do.
L.O. Pump	2	34	1	37/0.72	131	152 ✓	105	Do.
Ballast and Fire Service Pump	1	33	1	37/0.64	127	130 ✓	210	Do.
Bidge Pump	1	16	1	19/0.52	63	64 ✓	120	Do.
Gen. Service & Sanitary Pump	1	24	1	19/0.72	94	97 ✓	140	Do.
Refrig. S.W. Circ. Pump	2	18	1	19/0.64	72	83 ✓	156	Do.
O.F. Transfer Pumps	2	11	1	7/0.64	45	46 ✓	138	Do.
S.W. Pump (Ship's Use)	1	5	1	7/0.36	22	24 ✓	140	Do.
Vapour Exh. Fan	2	1.4	1	3/0.36	5.6	5 ✓	90	Do.
Water Extraction Pumps	2	20	1	19/0.64	77	83 ✓	160	Do.
O.F. Pressure Pumps	2	8.5	1	7/0.52	35	37 ✓	140	Do.
Chilled Water Exh. Pumps	2	3	1	7/0.29	13	15 ✓	30	Do.
Condensate Pumps	2	1.5	1	3/0.36	7	10 ✓	30	Do.
32" Dia. Torpedo Fan	6	4.5	1	7/0.36	20	24 ✓	240	Do.
L.O. Purifiers	3	0.5	1	3/0.29	2.8	5 ✓	45	Do.
6" Lathe	1	1.5	1	3/0.36	7.8	10 ✓	30	Do.
Drilling Machine	1	3.0	1	7/0.29	13	15 ✓	30	Do.
Grinding Machine	1	2.0	1	3/0.36	9	10 ✓	60	Do.
3 Ton Cargo Winches	14	34	1	19/0.83	131	142 ✓	186	Do (1/2 hour rating)
5/10 Ton Cargo Winches	2	55	1	37/0.83	208	247 ✓	30	Do (Do)
6 Ton Cargo Winches	2	68	1	37/1.03	260	351 ✓	140	Do (Do)
Windlass	1	70	1	37/1.03	265	283 ✓	180	Do (1 hour rating)
S.W. Circ. Pump (Diesel)	1	7.5	1	7/0.44	30	31 ✓	126	Do.
F.W. Circ. Pump (Diesel)	1	4.5	1	7/0.36	18	24 ✓	126	Do.
Evaporator Feed Pump	1	2.25	1	7/0.29	11.8	15 ✓	162	Do.
Turning Motor	1	15	1	19/0.52	59	64 ✓	130	Do.



*The foregoing is a correct description.*

Date \_\_\_\_\_

COMPASSES.

39 feet

30 feet

The nearest cables to the compasses are as follows:—

A cable carrying ..... 5 ..... Amperes ..... 8 ..... feet from standard compass ..... 8 ..... feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power.

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

The maximum deviation due to electric currents was found to be 0.48 degrees on Am course in the case of the

standard compass, and no degrees on any course in the case of the steering compass.

*Builder's Signature.*

Date, 5. 6. 47

Is this installation a duplicate of a previous case? not If so, state name of vessel

Plans. Are approved plans forwarded herewith no If not, state date of approval

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

Motor makers but certificates have not been received for Hindustan Steaming Co. and Pigeonhole but fans. The Builders' state that these will be forwarded as soon as they receive them.

The Electrical Equipment of this vessel has been fitted in board under special survey, noted under the working conditions and found satisfactory. The materials and workmanship are good.

[illegible]

07 08 015 081 082 083 084 085 086 087 088 089 090 091 092 093 094 095 096 097 098 099 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 108

*[Faint handwritten notes at the bottom of the page, possibly bleed-through from the reverse side.]*

38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 106

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10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

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0E 01 7 3/08 1 2 9

Total Capacity of Generators	12.90	V	2	Kilowatts.
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[illegible]

When applied for, *PSOP* *1* *0.5* *1* *ambush grill*

*[Handwritten notes and markings are visible across the top of the page, including "8-23-70", "8-24", "8-25", and "Chism".]*

Travelling Expenses (if any) if	When received.	By whom	For what purpose	Amount	Received by	Signature	Remarks
10	125	10	10	10	10	10	10

1	10	1	3/11/62	505	583	180	100
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Committee's Minute

10	20	30	40	50	60	70	80	90	100
10	20	30	40	50	60	70	80	90	100

Assigned 7/1/2021