

1 set of bolts and nuts for the crank shaft coupling.

1 set of bolts and nuts for the intermediate shaft coupling.

List of Spare Gear for the machinery of

Oil Twin Screw Motor Vessel "B O R I N G I A" of Copenhagen.

9 oil fuel injectors Burmeister & Wain's Yard No. 560 etc. ready for

Engines Nos. 1637 & 1638.

7 Copenhagen Report No.

Main Diesel oil engines:-

1 cylinder cover with studs and nuts for fastening of valves,
cylinder liners, water jacket etc.

1 complete set of studs and nuts for one cylinder cover.

1 cylinder liner.

2 safety valves complete for the cylinders.

7 safety valve springs.

1 piston with piston rings and studs & nuts for fastening of
piston rod.

1 piston rod complete.

24 piston rings.

3 piston scraping rings.

1 scraping ring with spring for the piston rods.

6 springs for the piston rod scraping rings.

1 telescopic cooling pipe complete for one piston.

1 pair of main bearing brasses.

4 main bearing studs and nuts.

starting air valves.

2 crank pin bearing top brasses.

1 starting air valve bottom brass.

4 " " " " bolts and nuts.

4 crosshead bearing bottom brasses.

3 safety discs for the starting air line.

2 " " " " top brasses.

Oil fuel pressure pumps bolts and nuts.

7 plunger pistons with rings.

© 2019

Lloyd's Register
Foundation

W151-00 67(117)
W151-00 67(117)
W151-00 67(117)

2.

- 1 set of bolts and nuts for one crank shaft coupling.
- 1 set of bolts and nuts for one intermediate shaft coupling.

Oil fuel injection valves.

- 9 oil fuel injection valves complete with springs etc. ready for use.
- 4 oil fuel injection valves spindles.
- 7 bottom parts for the valve chests.
- 7 springs for the valves.
- 2 spindles with unions for the overflow valves.
- 3 safety caps.
- 1 shield cap.
- 1 guide roller with bolt for the valve lifting gear.
- 1 length of "Garlock" packing sufficient for 6 valves.

Air inlet valves.

- 3 air inlet valves complete with springs etc. ready for use.
- 7 springs of each size used for the valves.

Exhaust valves.

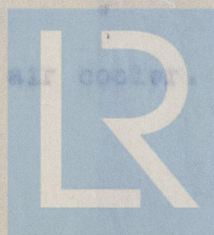
- 14 exhaust valves complete with springs etc. ready for use.
- 4 exhaust valve discs.
- 7 springs of each size used for the valves.
- 1 guide roller with bolt for the valve lifting gear.
- 7 springs for the valve lifting levers.
- 3 thermometer connecting pieces.

Starting air valves.

- 2 starting air valves complete with springs etc. ready for use.
- 1 spring of each size used for the valves.
- 1 guide roller with bolt for the valve lifting gear.
- 3 safety discs for the starting air line.

Oil fuel pressure pumps.

- 7 plunger pistons with bushes.



© 2019

Lloyd's Register
Foundation

W151-00 611217

4.3.

- 7 suction valve discs.
- 7 delivery " "
- 7 springs for the suction valves.
- 7 " " " delivery valves.
- 1 safety valve complete.

1 safety valve spring.

Cam shaft drive.

2 intermediate chain wheels.

1 chain wheel for the main crank shaft.

1 chain wheel for the chain tightener.

1 cog wheel.

1 cog wheel for the cam shaft.

Main engine bilge pump.

1 suction valve complete.

1 delivery " "

1 spring for the suction valves.

1 " " " delivery "

1 " " " escape valve.

Main air compressor.

4 L.P. piston rings.

5 I.P. " " " " " " " " " " " "

1 I.P. " " " " " " " " " " " "

7 H.P. " " " " " " " " " " " "

1 H.P. " " " " " " " " " " " "

14 L.P. suction valves complete with springs etc. ready for use.

12 L.P. delivery " " " " " " " " " " " "

2 I.P. suction " " " " " " " " " " " "

2 I.P. delivery " " " " " " " " " " " "

2 H.P. suction " " " " " " " " " " " "

2 H.P. delivery " " " " " " " " " " " "

1 safety valve for the L.P. air cooler.



© 2019

Lloyd's Register Foundation

W151-0061(317)
W151-0061(317)

4.

- 1 safety valve for the I.P. air cooler.
- 1 " " " " H.P. air valve system.
- 3 springs for the safety valves.
- 2 safety caps for the H.P. water cooling jackets.
- 1 H.P. air cooling coil with flange and union ready for use.
- 8 valve spindles of various sizes suitable for the valves on the high pressure injection air bottles.
- A number of springs of each size used suitable for the main engines and the main air compressors.

Auxiliary Diesel oil engines.

- 1 combined cylinder cover with liner complete with studs and nuts for fastening of water jackets etc.
- 1 water cooling jacket for cylinder liner complete.
- 1 complete set of studs and nuts for one cylinder cover.
- 1 spring for the safety valves on cylinder covers.
- 1 trunk piston complete.
- 1 piston ring.
- 3 piston scraping rings.
- 2 pair of main bearing brasses.
- 2 main bearing studs and nuts.
- 1 pair of crank pin bearing brasses.
- 2 crank pin bearing bolts and nuts.
- 2 crosshead bearing gudgeon pins.
- 1 crosshead bearing gudgeon bush.

Air inlet valves.

- 1 air inlet valve complete with spring etc. ready for use.
- 6 springs for the valves.

Exhaust valves.

- 4 exhaust valves complete with springs etc. ready for use.
- 2 exhaust valve discs.
- 6 springs for the valves.



© 2019

Lloyd's Register
Foundation

W151-0061(417)

3 L.P. suction valves complete ready for use.
Starting air valves.

3 L.P. delivery

1 starting air valve complete with springs etc. ready for use.

1 I.P. suction

3 springs for the valves.

1 I.P. delivery

1 H.P. oil fuel injection valves.

1 H.P. delivery

5 oil fuel injection valves complete with springs etc. ready for

2 H.P. air cooling coils with flanges and unions ready for use.

A number of springs of each size used on the valves.

2 oil fuel injection valve spindles.

3 springs for the valves.

A number of circulating valve complete.

1 spindle for circulating valves.

A quantity of oil fuel pressure pump.

1 oil fuel pressure pump complete regulating shaft, levers, etc.
 ready for use.

1 pump crosshead.

1 trunk piston.

1 bush.

1 stuffing box.

6 stuffing box packing rings.

1 suction valve complete.

1 wind 1 delivery " "

2 gu 2 springs for suction valves.

2 " " delivery valves.

Bilge and Sanitary pump

2 " " escape valves.

1 suction valve complete with seat and gasket.

1 sp. Auxiliary air compressors.

1 ball pair of crank pin bearing brasses.

2 crank pin bearing bolts and nuts.

Cooling water pumps.

4 L.P. piston rings.

2 ball bearings

5 I.P. piston rings.

2 I.P. piston scraping rings.

7 H.P. piston rings.

1 roller bearing.

1 H.P. piston scraping ring.



© 2019

Lloyd's Register
 Foundation

W151-0061(517)

6.

3 L.P. suction valves complete ready for use.

3 L.P. delivery " " " " "

1 I.P. suction valve " " " " "

1 I.P. delivery " " " " "

1 H.P. suction " " " " "

1 H.P. delivery " " " " "

2 H.P. air cooling coils with flanges and unions ready for use.

A number of springs of each size used suitable for the auxiliary engines and auxiliary air compressors.

A number of assorted india rubber rings of each size used at the main and auxiliary engines and air compressors.

A quantity of "KRUPP's" and "Palmetto" packing materials.

Various lengths of steel and copper pipes of each size used for the fuel delivery and injection air pipes to the main and auxiliary power cylinders, and the air delivery from main and auxiliary compressors to the air receivers with unions, cone-ends, flanges etc. suitable for each.

A quantity of assorted bolts and nuts.

Ballast pump.

1 wing for the rotor.

2 guide blocks for wings.

Bilge and Sanitary pump.

1 suction valve complete with seat and spring.

1 spring for escape valve.

1 ball bearing.

Cooling water pumps.

2 ball bearings.

Lubricating oil pumps.

1 roller bearing.



© 2019

Lloyd's Register
Foundation

W151-0061(617)

195/8. on the Twin

Built at

7.

Engines 1 spring for escape valve.

Donkey Boilers made at Breach Works by which the engine is driven.

Brake Ho. oil fuel transfer pump.

1 spring for escape valve.

Trade for which vessel is intended

Fresh water sanitary pump.

3 ball bearings.

1 spring for the safety valve on starting air receiver.

1 propeller shaft with nut and key.

2 cast iron propellers.

Donkey Boiler.

1 safety valve spring.

1 feed check valve disc.

6 water gauge glasses with packings.

1 atomizer for the oil fuel burner.

Generators.

1 set of carbon brushes.

1/2 " " brush holders.

Electro motors.

1 set of carbon brushes and 1/2 set of brush holders for
each of the 30 H.P., 15 H.P., 9 H.P., 8 H.P., 3 H.P. &
2 H.P. electro motors.

5 ball bearings of various size used for electro motors.

A quantity of fuses, switches, contact fingers, lamps,
lamp holders, fittings etc. suitable for the electric
installation.

16 H.P. electro motor for the oil pump to the hydraulic
steering gear.

One armature with shaft complete.

1/2 set of carbon brushes.

1/2 set of brush holders.

Auxiliary Air Compressor.

Small Auxiliary Air Compressor.

Suctioning Air Pumps, No.

Auxiliary Engines crank shafts, diameter

as per Rule
as fitted

Please see the separate report herewith.

1558-11-10-1929
AIPMRO 1/2 x 1/2
1/2 x 1/2
1/2 x 1/2



© 2019

Lloyd's Register
Foundation

W151-00611717

Copenhagen Report N^o 8227

379

Register
ation

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 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. 84

• qumq Yt&t insa t&t&w n&e r&t

2 ptt perlinis.

1. probetter anstet mit unu and key.

DOUGLAS BOTTEL.

1. Языки программирования.

I need check with you.

• agnikasq ntiw aasaslg agusag retaw d

I submit that the only way to

• 8101 6T9M9D

• send to the printer.

* * * * *

ETECLO MOLOLA.

each of the 30 N.P., 11 N.P., 8 N.P., 3 N.P. &

С.Н.Р. егесло шотоз.

•rotom ottsale tot bea eze snortsy to agnized lled d
•sugal ,aregnit jcatnos ,renotwa ,seaut to yctinsup a
Sittsede ent tot eldsitua .ote agnititit ,areblon qumel

•noislant

TO H.B. EFFECTS WOULD NOT BE OF THE NATURE OF

1898 and 1903.

que nuncio me suadere conpetere.

• General Notes to the

• Steblon David To Jes &

87(117)1200-12XU

Deep tank, aft, **BETWEEN TUNNEL**

1070

No. 1
beg. 1
1966

Bull
Ingie
Donl
Broh
Nom
Tydd
L
axim
van e
wobh
ranh
lywl
ube
rom
opell
1981

Holl
depp
e al
l fro
e all
re the
re the
re the
but p
but p
but p
e all
the a
mper
a woc
ain
exhib
nall
ave