

Rpt. 4b.

# REPORT ON OIL ENGINE MACHINERY.

No. 12375-6  
13 AUG 1931

Received at London Office

Date of writing Report *4 Aug* 19 *31* When handed in at Local Office 19 *31* Port of *AMSTERDAM*  
No. in Survey held at *AMSTERDAM* Date, First Survey *14 February* Last Survey *30 July* 19 *31*  
Reg. Book. Number of Visits *39*

*11007* on the *Single* *Twin* *Triple* *Quadruple* Screw vessel *"ANGELINA"* Tons Gross *2086* Net *1028*

Built at *AMSTERDAM* By whom built *N.V. Nederlandsche Dok My* Yard No. *38* When built *1931*  
Engines made at *AMSTERDAM* By whom made *WERKSPoor* Engine No. When made *1931*  
Donkey Boilers made at *Amsterdam* By whom made *Werkspoor* Boiler No. When made *1931*  
Brake Horse Power *1 x 520* Owners *Ned Ind Tank Stoomboot My* Port belonging to *s'Gravenhage*  
Nom. Horse Power as per Rule *1 x 143* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*  
Trade for which vessel is intended

**ENGINE, &c.**—Type of Engines *Direct Engines* 2 or 4 stroke cycle *Single or double acting*  
Maximum pressure in cylinders *500 lb.* Diameter of cylinders *400 mm* Length of stroke *800 mm* No. of cylinders *6 x 2* No. of cranks *6*  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *550 mm* Is there a bearing between each crank *yes*  
Revolutions per minute *140* Flywheel dia. *1680* Weight *3000 kg* Means of ignition *Self ignition* Kind of fuel used *Diesel oil*  
Crank Shaft, dia. of journals *as per Rule 254 mm* as fitted *260 mm* Crank pin dia. *260 mm* Crank Webs Mid. length breadth *496 mm* Thickness parallel to axis *100-145 mm*  
Flywheel Shaft, diameter *as per Rule 160 mm* as fitted *160 mm* Intermediate Shafts, diameter *as per Rule 190 mm* as fitted *190 mm* Thrust Shaft, diameter at collars *as per Rule 200 mm* as fitted *200 mm*  
Tube Shaft, diameter *as per Rule 215 mm* as fitted *215 mm* Is the *tube* *screw* shaft fitted with a continuous liner *yes*  
Bronze Liners, thickness in way of bushes *as per Rule 15/16 mm* as fitted *15/16 mm* Thickness between bushes *as per rule 15/16 mm* as fitted *15/16 mm* Is the after end of the liner made watertight in the propeller boss *yes* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *one length*  
the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *tight fit*  
two liners are fitted, is the shaft lapped or protected between the liners *no* Is an approved Oil Gland or other appliance fitted at the after end of the tube *yes*  
aft. *no* If so, state type *no* Length of Bearing in Stern Bush next to and supporting propeller *856 mm*

Propeller, dia. *2400 mm* Pitch *1060 mm* No. of blades *3* Material *Bronze* whether Moveable *Solid* Total Developed Surface *21.45* sq. feet  
Method of reversing Engines *Compound air* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication *oil*  
Thickness of cylinder liners *35 mm* Are the cylinders fitted with safety valves *yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *non conducting* Is the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *about*

Cooling Water Pumps, No. *2* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *yes*  
Bilge Pumps worked from the Main Engines, No. *2* Diameter *45 mm* Stroke *230 mm* Can one be overhauled while the other is at work *yes*  
Pumps connected to the Main Bilge Line { No. and Size *2 main engine pumps, ballast pumps 8" x 9" x 10"*  
How driven *ballast pumps, steam driven*  
Ballast Pumps, No. and size *1 8" x 8" x 10"* Lubricating Oil Pumps, including Spare Pump, No. and size *2 ballast pumps 35 mm 1 oil 6" x 4" x 8" steam driven*  
Are two independent means arranged for circulating water through the Oil Cooler *yes* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces *1 off 2 1/2" 4 off 2 1/2"*  
In Holds, &c. *1 off 2 1/2" 1 off 2 1/2" 1 off 2 1/2" 1 off 2 1/2" 1 off 2 1/2" 1 off 2 1/2"*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *one 2 1/2"*  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *yes* Are the Bilge Suctions in the Machinery Spaces *yes*  
ed from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *yes*  
Are all Sea Connections fitted direct on the skin of the ship *yes* Are they fitted with Valves or Cocks *Both*  
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates *yes* Are the Overboard Discharges above or below the deep water line *about*  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel *yes* Are the Blow Off Cocks fitted with a spigot and brass covering plate *yes*  
What pipes pass through the bunkers *no* How are they protected *no*  
What pipes pass through the deep tanks *no* Have they been tested as per Rule *no*

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *yes*  
Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another *yes* Is the Shaft Tunnel watertight *no* Is it fitted with a watertight door *no* worked from *no*  
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *no*  
Main Air Compressors, No. *2* No. of stages *3* Diameters *350 x 310 x 80 mm* Stroke *330 mm* Driven by *main engine*  
Auxiliary Air Compressors, No. *1* No. of stages *3* Diameters *Reavell* Stroke *185 mm* Driven by *main engine*  
Small Auxiliary Air Compressors, No. *1* No. of stages *2* Diameters *Reavell* Stroke *15 mm* Driven by *steam*  
Scavenging Air Pumps, No. *2* Diameter *no* Stroke *no* Driven by *no*

Auxiliary Engines crank shafts, diameter *as per Rule 135 mm* as fitted *135 mm 110 mm 110 mm 110 mm 110 mm 110 mm*

**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*  
Can the internal surfaces of the receivers be examined *yes* What means are provided for cleaning their inner surfaces *hand holes*  
Is there a drain arrangement fitted at the lowest part of each receiver *yes*  
High Pressure Air Receivers, No. *1* Cubic capacity of each *285 Liter* Internal diameter *400 mm* thickness *18 mm*  
Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength *50/60 kg* Working pressure by Rules *105 kg*  
Starting Air Receivers, No. *2* Total cubic capacity *600 mm* Internal diameter *50 mm* thickness *18 mm*  
Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength *29 kg-54 mm* Working pressure by Rules *354 kg*

W1042-0092



If so, is a report now forwarded? *Yes*

SPARE GEAR Yes, also for ammunition  
supplied as Please see List attached.  
Per Rules.

**WERKSPOR N.V.**

*Manufacturer.*

Completion of fitting sea connections	15/11/51	Completion of pumping arrangements	2/12/51	Engines tried under working conditions	30/4/51		
Crank shaft, Material	Steel	Identification Mark	F.S. 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.	Propeller shaft, Material	Steel	Identification Mark	F.S. 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. 75

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes

If so, have the requirements of the Rules been complied with Yes

Is this machinery duplicate of a previous case? Yes

If so, state name of vessel *M. V. Helster, Coast Reg. No. 1210*

*General Remarks* (State quality of workmanship, opinions as to class, &c.)

The engines have been constructed under special survey in accordance with the approved plans and Secretary's letter. Motions tested on engine and unbroken shaft, in our opinion eligible to be recorded + L. M. C. 4. 31.

The amount of Entry Fee	...	£ 48.-	:	When applied for,
Special	...	£ 814.80	:	19.
Donkey Boiler Fee	...	£ 44.40	:	When received,
Travelling Expenses (if any)	...	£ 45.64	:	31/8/19.

Committee's Minute

*Assigned*

CERTIFICATE WRITTEN

*Engineer Surveyor to Lloyd's Register of Shipping.*

Lloyd's Register  
Foundation

Has the Steer been tested as required -