

# REPORT ON BOILERS.

No. 12446.

Received at London Office

-2 DEC 1931

Port, 25 November 1931 When handed in at Local Office

19 Port of **AMSTERDAM**

held at **AMSTERDAM**

Date, First Survey 4 June 1930 Last Survey 24 November 1931

Steel Twin Screw Vessel **"MAJA"**

(Number of Visits 10) Tons { Gross 8268 Net 4867

Built at **Krimpen**

By whom built **N.V.C.v.d.Giessen & Zonen's Scheps.** Ward No. 618 When built 1931

**Amsterdam**

By whom made **Werkspoor N.V.**

Engine No. - When made 1931

**Amsterdam**

By whom made **Werkspoor N.V.**

Boiler No. - When made 1931

Power 713

Owner **Petroleum Maats. "La Cereña"**

Port belonging to **The Hague**

## BULAR BOILERS—MAIN, AUXILIARY, OR—DONKEY.

of Steel Thyssen (Letter for Record 2)

Surface of Boilers 1452 sq. ft. Is forced draught fitted Yes Coal or Oil fired oil fired

Position of Boilers 2 Horizontal main boilers Working Pressure 150 lb.

Working pressure to 175 lb. Date of test 14.5.31 No. of Certificate 2054, 545 Can each boiler be worked separately Yes

Rate in each Boiler 4 No. and Description of safety valves to each boiler Two spring loaded

Set of valves per boiler { per Rule 11.29 inch as fitted 11.2 Pressure to which they are adjusted 150 lb. Are they fitted with easing gear Yes

By boilers, state whether steam from main boilers can enter the donkey boiler 4

Clearance between boilers or uptakes and bunkers or woodwork 2' 6" Is oil fuel carried in the double bottom under boilers 4

Clearance between shell of boiler and tank top plating Interspersed Is the bottom of the boiler insulated Yes

Shell dia. of boilers 3200 in. Length 3200 in. Shell plates: Material Steel Tensile strength 29 1/2 - 35 tons

Are the shell plates welded or flanged No Description of riveting: circ. seams { end Abt riveted inter. 4

Diameter of rivet holes in { circ. seams 25 in. Pitch of rivets { 84 in. long. seams 25 in. 180 in.

Strength of circ. end seams { plate 40 rivets 45 Percentage of strength of circ. intermediate seam { plate 4 rivets 4

Strength of longitudinal joint { plate 80.8 % rivets 78.5 % combined 88 % Working pressure of shell by Rules 154 lb.

Stays { outer 19 in. inner 19 in. No. and Description of Furnaces in each Boiler 2 Morrison's furnaces

Material Steel Tensile strength 24/30 tons Smallest outside diameter 84 in.

In part { top 4 bottom 4 Thickness of plates { crown 11 in. bottom 11 in. Description of longitudinal joint Welded

Stiffening rings on furnace or c.c. bottom 4 Working pressure of furnace by Rules 180 lb.

Steam space: Material Steel Tensile strength 24-30 tons Thickness 23 in. Pitch of stays 400 in. x 400 in.

Secured Double nutted Working pressure by Rules 152 lb.

Material { front Steel back Steel Tensile strength { 24-30 tons Thickness { 23 in. 18 in.

Stay tubes in nests 250 in. Pitch across wide water spaces 360 in. Working pressure { front 155 lb. back 200 lb.

Combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder

160 in. x 52 in. Length as per Rule 650 in. Distance apart 200 in. No. and pitch of stays

2 x 110 in. Working pressure by Rules 165 lb. Combustion chamber plates: Material Steel

Thickness: Sides 14 in. Back 14 in. Top 14 in. Bottom 14 in.

to ditto: Sides 210 in. x 185 in. Back 215 in. x 189 in. Top 210 in. x 200 in. Are stays fitted with nuts or riveted over riveted over

Pressure by Rules 160 lb. Front plate at bottom: Material Steel Tensile strength 24-30 tons

23 in. Lower back plate: Material Steel Tensile strength 24-30 tons Thickness 23 in.

at wide water space 330 in. x 150 in. Are stays fitted with nuts or riveted over nutted

Pressure 330 lb. Main stays: Material Steel Tensile strength 28-32 tons

Body of stay, or threads 2 3/8 in. No. of threads per inch 8 Area supported by each stay 250 sq. inch

Pressure by Rules 154 lb. Screw stays: Material Steel Tensile strength 24/30 tons

Turned off part, or threads 1 3/8 in. No. of threads per inch 11 Area supported by each stay 162 sq. inch.



Working pressure by Rules 165 lb Are the stays drilled at the outer ends Yes Margin stays: Diameter 1 1/2" { At turned off part, 1 1/2"  
No. of threads per inch 11 Area supported by each stay 61 sq. inch Working pressure by Rules 200 lb { Over threads  
Tubes: Material Lapland iron External diameter 2 3/4" { Plain 2 3/4" Thickness 1/4" No. of threads per inch 11 { Stay 2 3/4"  
Pitch of tubes 100 in Working pressure by Rules 215 lb Manhole compensation: Size of opening in  
shell plate 340 in x 440 in Section of compensating ring 16 sq. inch No. of rivets and diameter of rivet holes 28 - 15 in  
Outer row rivet pitch at ends 78 in Depth of flange if manhole flanged 80 in Steam Dome: Material Steel  
Tensile strength < Thickness of shell < Description of longitudinal joint <  
Diameter of rivet holes < Pitch of rivets < Percentage of strength of joint { Plate <  
Internal diameter < Working pressure by Rules < Thickness of crown < Rivets < No. and diameter of  
stays < Inner radius of crown < Working pressure by Rules <  
How connected to shell < Size of doubling plate under dome < Diameter of rivet holes and pitch  
of rivets in outer row in dome connection to shell <

Type of Superheater < Manufacturers of { Tubes <  
Number of elements < Material of tubes < Steel castings < Internal diameter and thickness of tubes <  
Material of headers < Tensile strength < Thickness < Can the superheater be shut off and  
the boiler be worked separately < Is a safety valve fitted to every part of the superheater which can be shut off from the boiler <  
Area of each safety valve < Are the safety valves fitted with easing gear < Working pressure as per  
Rules < Pressure to which the safety valves are adjusted < Hydraulic test pressure:  
tubes < castings < and after assembly in place < Are drain cocks or valves fitted  
to free the superheater from water where necessary <

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,

**WERKSPOR N.V.**

Manufacturer

Dates of Survey { During progress of 1910/11 1911/12 1912/13 1913/14 1914/15 1915/16 1916/17 1917/18 1918/19 1919/20 1920/21 1921/22 1922/23 1923/24 1924/25 1925/26 1926/27 1927/28 1928/29 1929/30 1930/31 1931/32 1932/33 1933/34 1934/35 1935/36 1936/37 1937/38 1938/39 1939/40 1940/41 1941/42 1942/43 1943/44 1944/45 1945/46 1946/47 1947/48 1948/49 1949/50 1950/51 1951/52 1952/53 1953/54 1954/55 1955/56 1956/57 1957/58 1958/59 1959/60 1960/61 1961/62 1962/63 1963/64 1964/65 1965/66 1966/67 1967/68 1968/69 1969/70 1970/71 1971/72 1972/73 1973/74 1974/75 1975/76 1976/77 1977/78 1978/79 1979/80 1980/81 1981/82 1982/83 1983/84 1984/85 1985/86 1986/87 1987/88 1988/89 1989/90 1990/91 1991/92 1992/93 1993/94 1994/95 1995/96 1996/97 1997/98 1998/99 1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09 2009/10 2010/11 2011/12 2012/13 2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22 2022/23 2023/24 2024/25 2025/26 2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2040/41 2041/42 2042/43 2043/44 2044/45 2045/46 2046/47 2047/48 2048/49 2049/50 2050/51 2051/52 2052/53 2053/54 2054/55 2055/56 2056/57 2057/58 2058/59 2059/60 2060/61 2061/62 2062/63 2063/64 2064/65 2065/66 2066/67 2067/68 2068/69 2069/70 2070/71 2071/72 2072/73 2073/74 2074/75 2075/76 2076/77 2077/78 2078/79 2079/80 2080/81 2081/82 2082/83 2083/84 2084/85 2085/86 2086/87 2087/88 2088/89 2089/90 2090/91 2091/92 2092/93 2093/94 2094/95 2095/96 2096/97 2097/98 2098/99 2099/00 2100/01 2101/02 2102/03 2103/04 2104/05 2105/06 2106/07 2107/08 2108/09 2109/10 2110/11 2111/12 2112/13 2113/14 2114/15 2115/16 2116/17 2117/18 2118/19 2119/20 2120/21 2121/22 2122/23 2123/24 2124/25 2125/26 2126/27 2127/28 2128/29 2129/30 2130/31 2131/32 2132/33 2133/34 2134/35 2135/36 2136/37 2137/38 2138/39 2139/40 2140/41 2141/42 2142/43 2143/44 2144/45 2145/46 2146/47 2147/48 2148/49 2149/50 2150/51 2151/52 2152/53 2153/54 2154/55 2155/56 2156/57 2157/58 2158/59 2159/60 2160/61 2161/62 2162/63 2163/64 2164/65 2165/66 2166/67 2167/68 2168/69 2169/70 2170/71 2171/72 2172/73 2173/74 2174/75 2175/76 2176/77 2177/78 2178/79 2179/80 2180/81 2181/82 2182/83 2183/84 2184/85 2185/86 2186/87 2187/88 2188/89 2189/90 2190/91 2191/92 2192/93 2193/94 2194/95 2195/96 2196/97 2197/98 2198/99 2199/00 2200/01 2201/02 2202/03 2203/04 2204/05 2205/06 2206/07 2207/08 2208/09 2209/10 2210/11 2211/12 2212/13 2213/14 2214/15 2215/16 2216/17 2217/18 2218/19 2219/20 2220/21 2221/22 2222/23 2223/24 2224/25 2225/26 2226/27 2227/28 2228/29 2229/30 2230/31 2231/32 2232/33 2233/34 2234/35 2235/36 2236/37 2237/38 2238/39 2239/40 2240/41 2241/42 2242/43 2243/44 2244/45 2245/46 2246/47 2247/48 2248/49 2249/50 2250/51 2251/52 2252/53 2253/54 2254/55 2255/56 2256/57 2257/58 2258/59 2259/60 2260/61 2261/62 2262/63 2263/64 2264/65 2265/66 2266/67 2267/68 2268/69 2269/70 2270/71 2271/72 2272/73 2273/74 2274/75 2275/76 2276/77 2277/78 2278/79 2279/80 2280/81 2281/82 2282/83 2283/84 2284/85 2285/86 2286/87 2287/88 2288/89 2289/90 2290/91 2291/92 2292/93 2293/94 2294/95 2295/96 2296/97 2297/98 2298/99 2299/00 2300/01 2301/02 2302/03 2303/04 2304/05 2305/06 2306/07 2307/08 2308/09 2309/10 2310/11 2311/12 2312/13 2313/14 2314/15 2315/16 2316/17 2317/18 2318/19 2319/20 2320/21 2321/22 2322/23 2323/24 2324/25 2325/26 2326/27 2327/28 2328/29 2329/30 2330/31 2331/32 2332/33 2333/34 2334/35 2335/36 2336/37 2337/38 2338/39 2339/40 2340/41 2341/42 2342/43 2343/44 2344/45 2345/46 2346/47 2347/48 2348/49 2349/50 2350/51 2351/52 2352/53 2353/54 2354/55 2355/56 2356/57 2357/58 2358/59 2359/60 2360/61 2361/62 2362/63 2363/64 2364/65 2365/66 2366/67 2367/68 2368/69 2369/70 2370/71 2371/72 2372/73 2373/74 2374/75 2375/76 2376/77 2377/78 2378/79 2379/80 2380/81 2381/82 2382/83 2383/84 2384/85 2385/86 2386/87 2387/88 2388/89 2389/90 2390/91 2391/92 2392/93 2393/94 2394/95 2395/96 2396/97 2397/98 2398/99 2399/00 2400/01 2401/02 2402/03 2403/04 2404/05 2405/06 2406/07 2407/08 2408/09 2409/10 2410/11 2411/12 2412/13 2413/14 2414/15 2415/16 2416/17 2417/18 2418/19 2419/20 2420/21 2421/22 2422/23 2423/24 2424/25 2425/26 2426/27 2427/28 2428/29 2429/30 2430/31 2431/32 2432/33 2433/34 2434/35 2435/36 2436/37 2437/38 2438/39 2439/40 2440/41 2441/42 2442/43 2443/44 2444/45 2445/46 2446/47 2447/48 2448/49 2449/50 2450/51 2451/52 2452/53 2453/54 2454/55 2455/56 2456/57 2457/58 2458/59 2459/60 2460/61 2461/62 2462/63 2463/64 2464/65 2465/66 2466/67 2467/68 2468/69 2469/70 2470/71 2471/72 2472/73 2473/74 2474/75 2475/76 2476/77 2477/78 2478/79 2479/80 2480/81 2481/82 2482/83 2483/84 2484/85 2485/86 2486/87 2487/88 2488/89 2489/90 2490/91 2491/92 2492/93 2493/94 2494/95 2495/96 2496/97 2497/98 2498/99 2499/00 2500/01 2501/02 2502/03 2503/04 2504/05 2505/06 2506/07 2507/08 2508/09 2509/10 2510/11 2511/12 2512/13 2513/14 2514/15 2515/16 2516/17 2517/18 2518/19 2519/20 2520/21 2521/22 2522/23 2523/24 2524/25 2525/26 2526/27 2527/28 2528/29 2529/30 2530/31 2531/32 2532/33 2533/34 2534/35 2535/36 2536/37 2537/38 2538/39 2539/40 2540/41 2541/42 2542/43 2543/44 2544/45 2545/46 2546/47 2547/48 2548/49 2549/50 2550/51 2551/52 2552/53 2553/54 2554/55 2555/56 2556/57 2557/58 2558/59 2559/60 2560/61 2561/62 2562/63 2563/64 2564/65 2565/66 2566/67 2567/68 2568/69 2569/70 2570/71 2571/72 2572/73 2573/74 2574/75 2575/76 2576/77 2577/78 2578/79 2579/80 2580/81 2581/82 2582/83 2583/84 2584/85 2585/86 2586/87 2587/88 2588/89 2589/90 2590/91 2591/92 2592/93 2593/94 2594/95 2595/96 2596/97 2597/98 2598/99 2599/00 2600/01 2601/02 2602/03 2603/04 2604/05 2605/06 2606/07 2607/08 2608/09 2609/10 2610/11 2611/12 2612/13 2613/14 2614/15 2615/16 2616/17 2617/18 2618/19 2619/20 2620/21 2621/22 2622/23 2623/24 2624/25 2625/26 2626/27 2627/28 2628/29 2629/30 2630/31 2631/32 2632/33 2633/34 2634/35 2635/36 2636/37 2637/38 2638/39 2639/40 2640/41 2641/42 2642/43 2643/44 2644/45 2645/46 2646/47 2647/48 2648/49 2649/50 2650/51 2651/52 2652/53 2653/54 2654/55 2655/56 2656/57 2657/58 2658/59 2659/60 2660/61 2661/62 2662/63 2663/64 2664/65 2665/66 2666/67 2667/68 2668/69 2669/70 2670/71 2671/72 2672/73 2673/74 2674/75 2675/76 2676/77 2677/78 2678/79 2679/80 2680/81 2681/82 2682/83 2683/84 2684/85 2685/86 2686/87 2687/88 2688/89 2689/90 2690/91 2691/92 2692/93 2693/94 2694/95 2695/96 2696/97 2697/98 2698/99 2699/00 2700/01 2701/02 2702/03 2703/04 2704/05 2705/06 2706/07 2707/08 2708/09 2709/10 2710/11 2711/12 2712/13 2713/14 2714/15 2715/16 2716/17 2717/18 2718/19 2719/20 2720/21 2721/22 2722/23 2723/24 2724/25 2725/26 2726/27 2727/28 2728/29 2729/30 2730/31 2731/32 2732/33 2733/34 2734/35 2735/36 2736/37 2737/38 2738/39 2739/40 2740/41 2741/42 2742/43 2743/44 2744/45 2745/46 2746/47 2747/48 2748/49 2749/50 2750/51 2751/52 2752/53 2753/54 2754/55 2755/56 2756/57 2757/58 2758/59 2759/60 2760/61 2761/62 2762/63 2763/64 2764/65 2765/66 2766/67 2767/68 2768/69 2769/70 2770/71 2771/72 2772/73 2773/74 2774/75 2775/76 2776/77 2777/78 2778/79 2779/80 2