

LLOYD'S CLASS 100 A. 1. WITH FREEBOARD.

N.B. ALL SECTIONS USED THROUGHOUT THE SHIP ARE
REVISED BRITISH STANDARD SECTIONS.

| PRINCIPAL DIMENSIONS | | | |
|-----------------------------------|--------------|--------|--|
| LENGTH | (L) | 445'0" | |
| BREADTH MOULDED | (B) | 60'6" | |
| DEPTH | TO UPPER DE. | 40'9" | |
| LOADED DRAUGHT (FROM TOP OF KEEL) | | 28'0" | |
| DEPTH 'D' FOR SCANTLING NUMERALS | (D) | 40'75" | |

| SCANTLING NUMERALS | | | |
|--------------------------------------|---------|----------------------------|--|
| 1 ST LONGITUDINAL NUMERAL | (LxO) | = 445'0" x 10'75" = 18,134 | |
| 2 ND | Lx(B-D) | = 445'0" x 10'25" = 45,056 | |
| PROPORTION TO UPPER DE. | Y/D | = 445'0" / 10'75" = 10.92 | |

| EQUIPMENTS & EQUIPMENT NUMBER | | | |
|-------------------------------|-------|--|--|
| EQUIPMENT NUMBER | 46196 | | |
| LETTER | dt | | |

| EQUIPMENTS | | | |
|---------------------------------------|-----------|-------------------|--|
| 3-BOWER ANCHORS STOCKLESS, COLLECTIVE | | 232 | |
| STREAM ANCHOR ORDINARY EX-STOCK | | 233 | |
| STUD CHAIN CABLE | 300 FMS | 234 | |
| STEEL WIRE FOR STREAM ANCHOR | 120 | 44 CIR (24 WIRES) | |
| TOW LINE STEEL WIRE | 130 | 52 CIR (DR) | |
| HAWSER MANILA | 2-100 FMS | 8 CIR | |
| WARPS | 2-100 FMS | 8 CIR | |

| FORGING & CASTING | | | |
|--------------------------|--|----------------|--|
| STEM (ROLLED MILD STEEL) | | 10 1/2 x 2 1/2 | |
| STERN FRAME AS PER PLAN | | | |

| KEEL & SHELL PLATING | | | |
|----------------------|----------------------------------|--------------|--|
| KEEL PLATE | | 55 x 85 ~ 75 | |
| BOTTOM | | 67 ~ 52 | |
| SIDE | | 65 ~ 49 | |
| BOSS | | .75 | |
| FILE SIDE PLATE | | .44 | |
| SHEER STRAKE | 63 x 78 (RULE SIZE 52 x 74) ~ 49 | | |
| BELOW SHEER STRAKE | 65 (RULE SIZE 52 x 70) ~ 49 | | |

| ENGINE CASING | | | |
|---------------|--|------------------------------------|--|
| COAMING PLATE | | 30' x 34' WHERE EXPOSED | |
| CASING | | 26' x 30' | |
| COAMING ANGLE | | 3 x 3 x 30A 3 x 3 x 34A | |
| STIFFENERS | | 3 x 2 1/2 x 30A 3 x 3 SPACED APART | |

| DECK HOUSES | | | |
|---------------|------------------------|-----------------|---------------------|
| | UPPER DECK | BRIDGE DECK | BOAT DECK |
| COAMING PLATE | .30 | .28 | .25 |
| HOUSE PLATE | .25 | .25 | .25 |
| COAMING ANGLE | 6 x 3 x 32A | 6 x 3 x 32A | 6 x 3 x 32A |
| TOP | 3 x 3 x 30A | 3 x 3 x 28A | 2 1/2 x 2 1/2 x 25A |
| STIFFENERS | 3 1/2 x 2 1/2 x 32A | 3 x 2 1/2 x 30A | 3 x 2 1/2 x 25A |
| SPACING | SPACED ABOUT 23' APART | | |

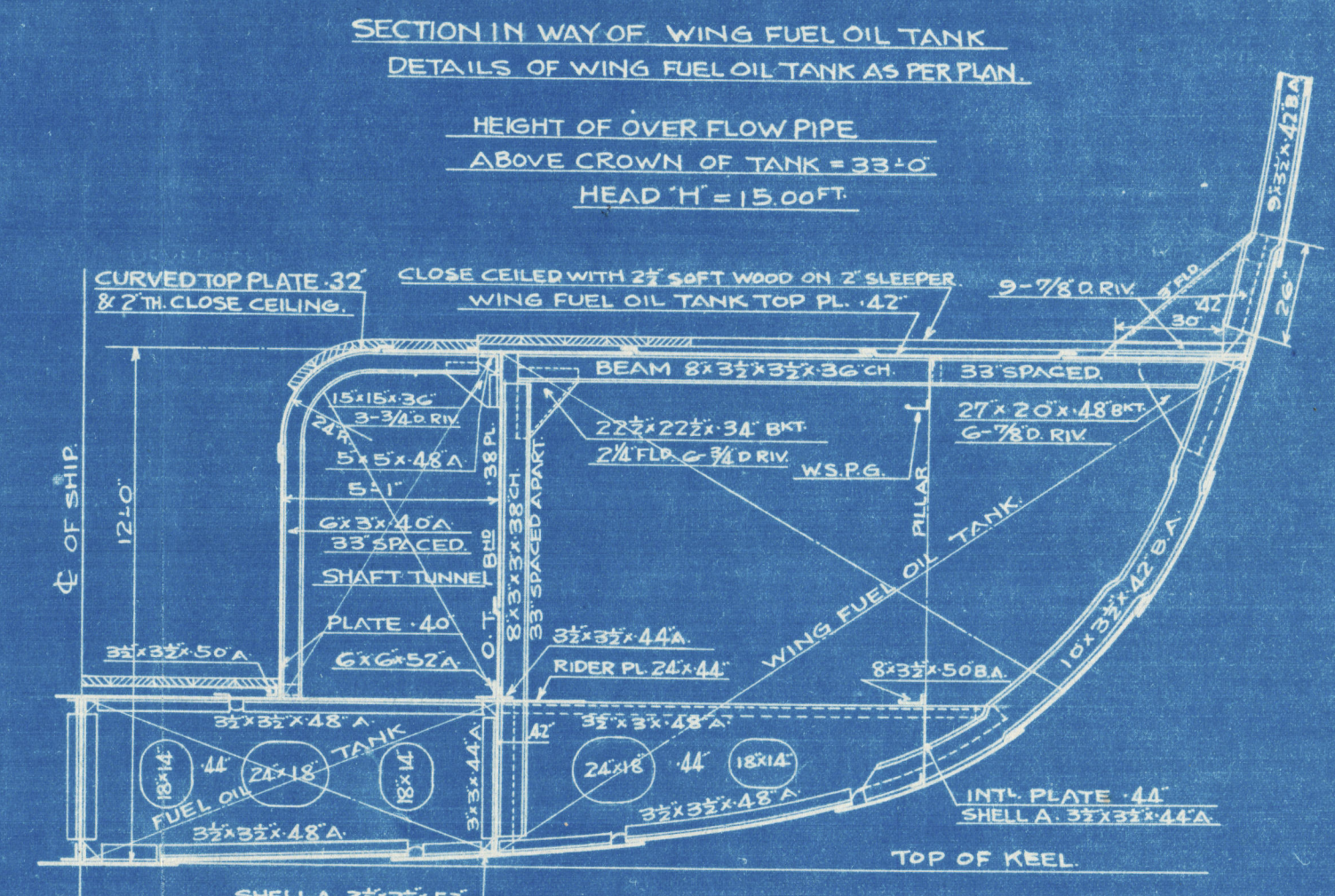
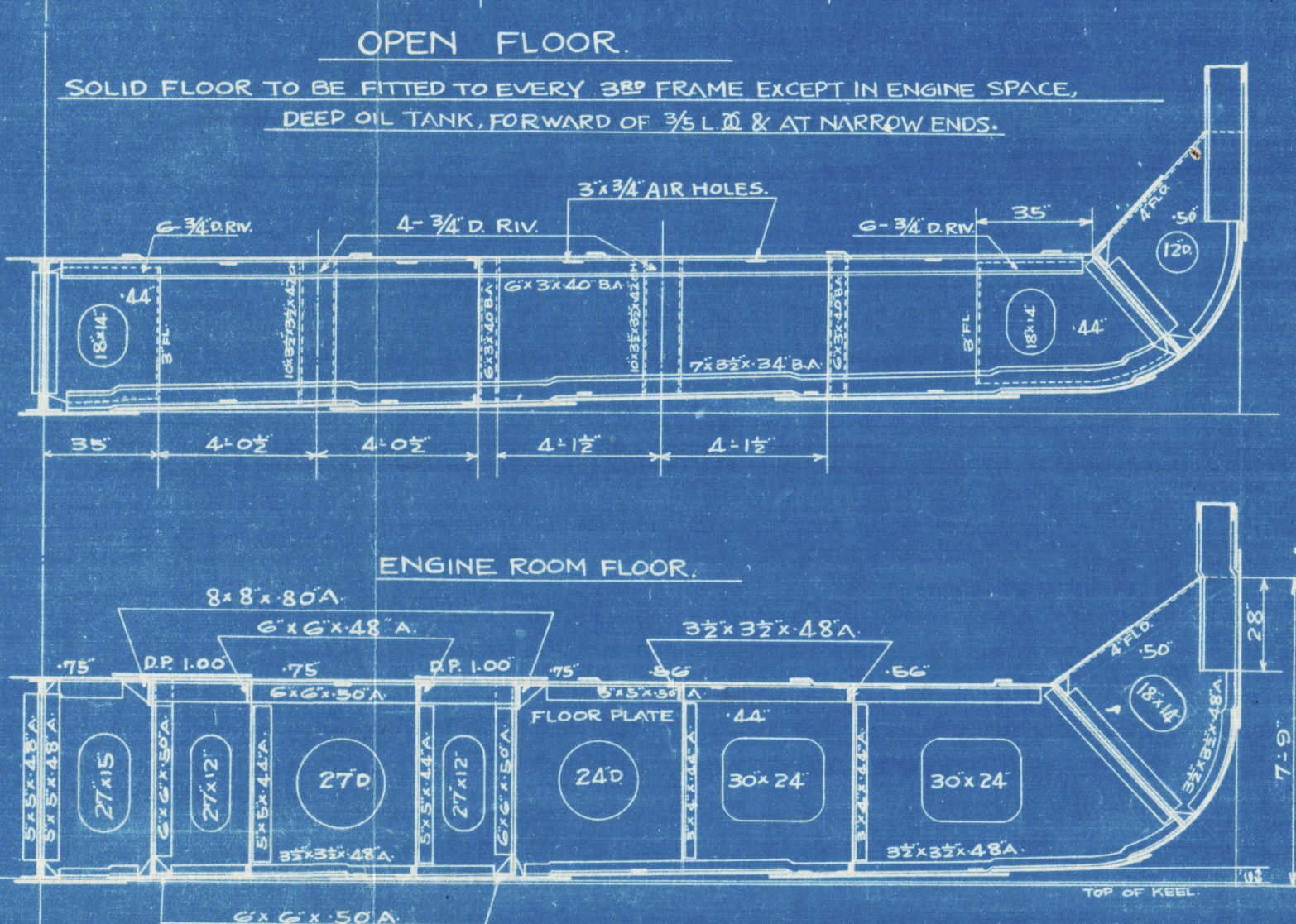
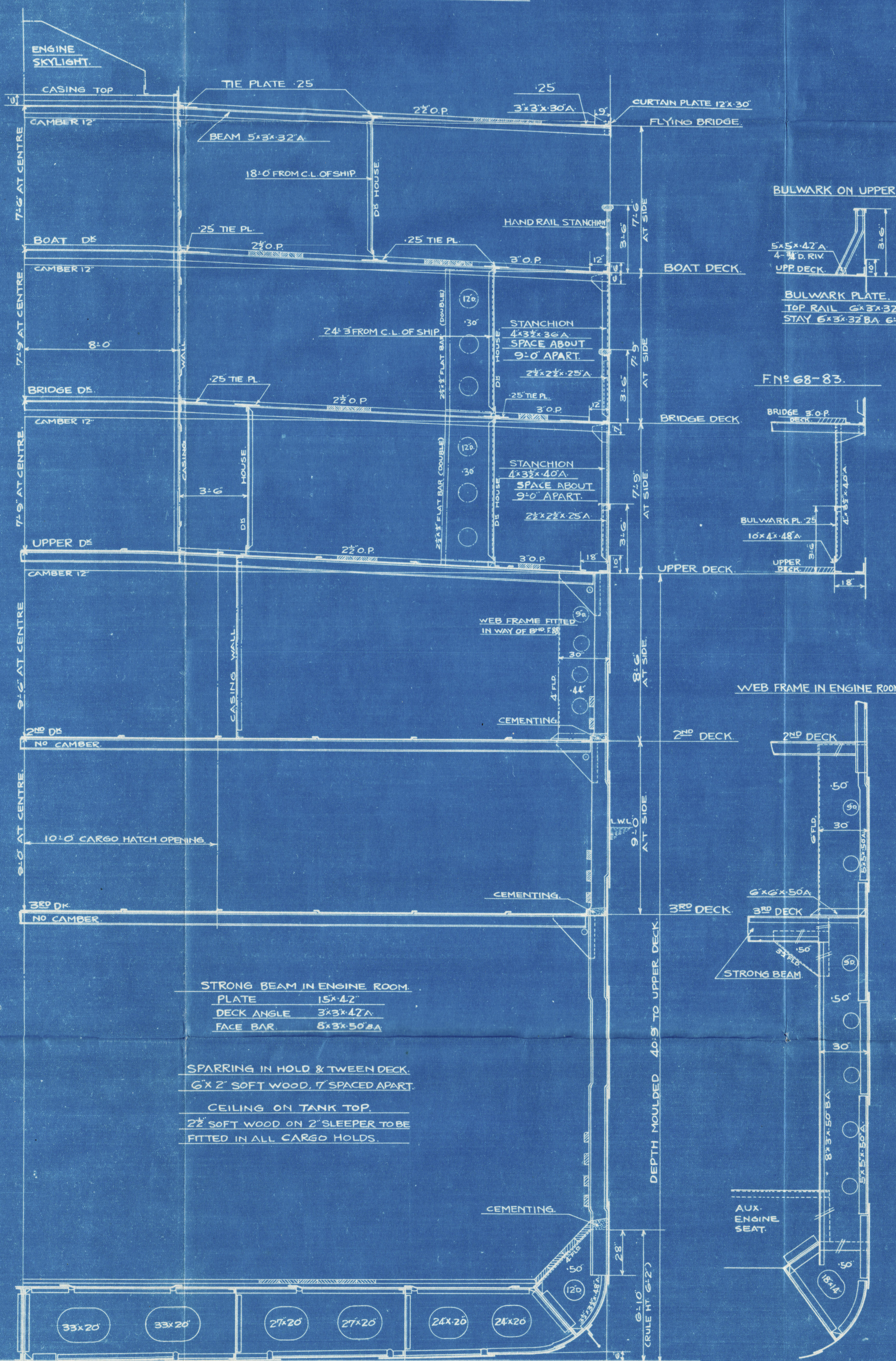
| BILGE KEEL (115-G AMIDSHIPS) | | | |
|------------------------------|--|-----------------|--|
| BULB PLATE | | 10 1/2 x 50 | |
| CONNECTING BAR | | 5 x 3 1/2 x 50A | |
| DEPTH OF GIRDER | | 13 | |

| DOUBLE BOTTOM | | | |
|---------------|--------------|-------------------|--------------|
| | 1/2 L @ ENDS | ENGINE SPACE | REMARKS |
| CENTRE | PLATE | 46 x 67 ~ 48 | 60 x 62 |
| GIRDER | KEEL ANGLE | 5 1/2 x 56 ~ 60DA | 5 1/2 x 66DA |
| | TOP | 3 1/2 x 56 ~ 52DA | 3 1/2 x 56DA |
| SIDE | VERT. PL | 3 1/2 x 48A | 5 1/2 x 48A |
| | PLATE | .44 | .44 |
| GIRDER | TOP ANGLE | 3 1/2 x 48A | 3 1/2 x 48A |
| | BOTTOM | 3 1/2 x 48A | 3 1/2 x 48A |
| SOLID | VERT. PL | 3 1/2 x 42A | 3 1/2 x 42A |
| | PLATE | .44 | .44 |
| FLOOR | FRAME | 3 1/2 x 48A | 3 1/2 x 48A |
| | RIV FRAME | 3 1/2 x 48A | 3 1/2 x 48A |
| W.T. | PLATE | .52 | .52 |
| | BOUNDARY | 3 1/2 x 52A | 3 1/2 x 52A |
| FLOOR | STIFFENER | 3 1/2 x 48A | 3 1/2 x 48A |
| | ML STRAKE | 56 x 56 ~ 46 | .75 |
| INNER | OTHER | .48 ~ 42 | .56 |
| | MARGIN PL | 40 x 56 | .56 |
| BOTTOM | TOP SHELL | 5 1/2 x 56A | 5 1/2 x 56A |
| | PLATE | .56 | .56 |

(I) DETAILS OF SCANTLING UNDER MAIN ENGINE SEATING AS PER SKETCHES
NB 1/2 TANK TOP PLATES FITTED TRANSVERSELY IN WAY OF BULKHEAD EXCEPT
MARGIN PLATE & MIDDLE LINE STRAKE.

STRENGTHENING OF BOTTOM FORWARD
FROM FORWARD OF 3/4 L @ COLLISION BULKHEAD
PITCH OF RIVET IN FRAME TO BE 5 x D (TWO COMPLETE ROW ON BOTH
FLANGES). FRAME ANGLE 5 x 5 x 48 FROM MARGIN PLATE TO
MARGIN PLATE.
INT'L ADDITIONAL SIDE GIRDER TO BE FITTED AT 4-0' APART & 2' HT.
GIRDER EXTENDING AS FAR FORWARD AS PRACTICABLE.
FLOOR PLATE OR INT'L SIDE GIRDERS ARE NOT TO BE FLANGED
SHELL PLATING, THREE STRAKES NEXT THE KEEL TO HAVE MIDSHIP
THICKNESS .67 MAINTAINED (FORWARD TO COLLISION BULK)

| RIVETING NOTE (EDGE CONNECTION) | | | |
|---------------------------------|---------|---------|--|
| KEEL PLATE | 2R | 2R | |
| BOTTOM PLATE | | | |
| SIDE PLATE | | | |
| SHEER STRAKE | | | |
| BELOW STRAKE | 2R | 2R | |
| FILE SIDE PL | | 1R | |
| ML STRAKE | 2R | 2R | |
| MARGIN PLATE | 2R | 2R | |
| UPPER STRINGER | 1R | 1R | |
| PLATE | | | |
| ALL OTHER DS PL | 1R | 1R | |
| | 1/2 L @ | AT ENDS | |



| DECKS | | | |
|-------------------|---------------------|--------------------|--------------------|
| | BOAT DECK | BRIDGE DECK | FILE DECK |
| STRINGER PLATE | 27 x 30 | 30 x 37 | 30 x 37 |
| ANGLE | 3 x 3 x 30A | 3 x 3 x 32A | 3 x 3 x 34A |
| SHELL ANGLE | | | |
| G.WATER WAY ANGLE | FLAT BAR .46 WELDED | | |
| DE PLATE | .25 | TIE PLATE | .25 |
| CURTAIN PLATE | 12 x 30 | BULWARK PL. .25 | |
| WOOD PLANK | 3 1/2 x 3 1/2 x 30 | 3 1/2 x 3 1/2 x 30 | 3 1/2 x 3 1/2 x 30 |

| TANK SIDE BRACKETS | | | |
|---------------------------|-------------|----------------|----------------|
| | NEAR & HOLD | ENGINE ROOM | 15% FROM STEM |
| PLATE | | | .50 |
| GUSSET PLATE | | CONTINUOUS | CONTINUOUS |
| TO FRAME | | 22 x 7/8 D RIV | 15 x 7/8 D RIV |
| TO GUSSET | | 8 x 7/8 D RIV | 7 x 7/8 D RIV |
| TO MARGIN PLATE | | 15 x 7/8 D RIV | 22 x 7/8 D RIV |
| VANSE ON MARGIN PL | | 5 x 5 x 48A | 5 x 5 x 48A |
| ON FLOOR PL | | 5 x 5 x 48A | 5 x 5 x 48A |
| GUSSET PLATE | | .56 | .48 |
| NO OF RIV IN WAY TO FRAME | | 22 x 7/8 D RIV | 15 x 7/8 D RIV |
| OF TANK TOP PLATE | | 20 x 7/8 D RIV | 15 x 7/8 D RIV |

| FRAMINGS | | | |
|--------------------|-------------|----|--|
| | FRAME SPACE | | |
| BOTH PEAKS | | 24 | |
| FORWARD OF 3/4 L @ | | 27 | |
| ELSE WHERE | | 33 | |

| FRAMING DEPTH (d) | | | |
|-----------------------|------------|---------------|--|
| | ACTUAL (d) | CORRECTED (d) | |
| IN WAY OF ENGINE ROOM | 18 1/2 | 18 1/2 | |
| HOLD | 19 1/2 | 19 1/2 | |
| WING F.O. TANK | 8 1/2 | 19 1/2 | |
| DEEP FRAME SYSTEM | 23 1/2 | 23 1/2 | |

| RIVETING NOTE (END CONNECTION) | | | |
|--------------------------------|-------------|-------------|----|
| | 1/2 L @ | AT ENDS | |
| KEEL PLATE | LAPPED & 4R | LAPPED & 3R | |
| BOTTOM | | 4R | 3R |
| SIDE | | 3R | 3R |
| SHEER STRAKE | | 4R | 3R |
| BELOW | | 4R | 3R |
| FILE SIDE PLATE | | | 1R |
| INNER BOTTOM :- | | | |
| ML STRAKE | LAPPED & 3R | LAPPED & 2R | |
| OTHER | 4R | 2R | |
| MARGIN PLATE | | 3R | |
| CENTRE GIRDER | 4R | 3R | |
| UPPER DE STRINGER PL | 4R | 3R | |
| PLATE | 4R | 3R | |
| 2ND DE STRINGER PL | 3R | 2R | |
| PLATE | 3R | 1R | |
| 3RD DE STRINGER PL | 1R | 1R | |
| PLATE | 1R | 1R | |
| FILE DE STRINGER PL | | 1R | |
| PLATE | | 1R | |
| BRIDGE DE STRINGER PL | LAPPED & 1R | | |
| PLATE | 1R | | |
| BOAT DE STRINGER PL | 1R | | |
| PLATE | 1R | | |

"FINAL PLAN"
M.T. "TOKAI MARU".
Nagasaki Report No. 1743.

MIDSHIP SECTION
SCALE 1/4 INCH TO 1 FOOT.
(445-0 x 60-6 x 40-9)
(FINISHED PLAN)



1916/23
1920
1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-2222-2223-2224-2225-2226-2227-2228-2229-2230-2231-2232-2233-2234-2235-2236-2237-2238-2239-2240-2241-2242-2243-2244-2245-2246-2247-2248-2249-2250-2251-2252-2253-2254-2255-2256-2257-2258-2259-2260-2261-2262-2263-2264-2265-2266-2267-2268-2269-2270-2271-2272-2273-2274-2275-2276-2277-2278-2279-2280-2281-2282-2283-2284-2285-2286-2287-2288-2289-2290-2291-2292-2293-2294-2295-2296-2297-2298-2299-2300-2301-2302-2303-2304-2305-2306-2307-2308-2309-2310-2311-2312-2313-2314-2315-2316-2317-2318-2319-2320-2321-2322-2323-2324-2325-2326-2327-2328-2329-2330-2331-2332-2333-2334-2335-2336-2337-2338-2339-2340-2341-2342-2343-2344-2345-2346-2347-2348-2349-2350-2351-2352-2353-2354-2355-2356-2357-2358-2359-2360-2361-2362-2363-2364-2365-2366-2367-2368-2369-2370-2371-2372-2373-2374-2375-2376-2377-2378-2379-2380-2381-2382-2383-2384-2385-2386-2387-2388-2389-2390-2391-2392-2393-2394-2395-2396-2397-2398-2399-2400-2401-2402-2403-2404-2405-2406-2407-2408-2409-2410-2411-2412-2413-2414-2415-2416-2417-2418-2419-2420-2421-2422-2423-2424-2425-2426-2427-2428-2429-2430-2431-2432-2433-2434-2435-2436-2437-2438-2439-2440-2441-2442-2443-2444-2445-2446-2447-2448-2449-2450-2451-2452-2453-2454-2455-2456-2457-2458-2459-2460-2461-2462-2463-2464-2465-2466-2467-2468-2469-2470-2471-2472-2473-2474-2475-2476-2477-2478-2479-2480-2481-2482-2483-2484-2485-2486-2487-2488-2489-2490-2491-2492-2493-2494-2495-2496-2497-2498-2499-2500-2501-2502-2503-2504-2505-2506-2507-2508-2509-2510-2511-2512-2513-2514-2515-2516-2517-2518-2519-2520-2521-2522-2523-2524-2525-2526-2527-2528-2529-2530-2531-2532-2533-2534-2535-2536-2537-2538-2539-2540-2541-2542-2543-2544-2545-2546-2547-2548-2549-2550-2551-2552-2553-2554-2555-2556-2557-2558-2559-2560-2561-2562-2563-2564-2565-2566-2567-2568-2569-2570-2571-2572-2573-2574-2575-2576-2577-2578-2579-2580-2581-2582-2583-2584-2585-2586-2587-2588-2589-2590-2591-2592-2593-2594-2595-2596-2597-2598-2599-2600-2601-2602-2603-2604-2605-2606-2607-2608-2609-2610-2611-2612-2613-2614-2615-2616-2617-2618-2619-2620-2621-2622-2623-2624-2625-2626-2627-2628-2629-2630-2631-2632-2633-2634-2635-2636-2637-2638-2639-2640-2641-2642-2643-2644-2645-2646-2647-2648-2649-2650-2651-2652-2653-2654-2655-2656-2657-2658-2659-2660-2661-2662-2663-2664-2665-2666-2667-2668-2669-2670-2671-2672-2673-2674-2675-2676-2677-2678-2679-2680-2681-2682-2683-2684-2685-2686-2687-2688-2689-2690-2691-2692-2693-2694-2695-2696-2697-2698-2699-2700-2701-2702-2703-2704-2705-2706-2707-2708-2709-2710-2711-2712-2713-2714-2715-2716-2717-2718-2719-2720-2721-2722-2723-2724-2725-2726-2727-2728-2729-2730-2731-2732-2733-2734-2735-2736-2737-2738-2739-2740-2741-2742-2743-2744-2745-2746-2747-2748-2749-2750-2751-2752-2753-2754-2755-2756-2757-2758-2759-2760-2761-2762-2763-2764-2765-2766-2767-2768-2769-2770-2771-2772-2773-2774-2775-2776-2777-2778-2779-2780-2781-2782-2783-2784-2785-2786-2787-2788-2789-2790-2791-2792-2793-2794-2795-2796-2797-2798-2799-2800-2801-2802-2803-2804-2805-2806-2807-2808-2809-2810-2811-2812-2813-2814-2815-2816-2817-2818-2819-2820-2821-2822-2823-2824-2825-2826-2827-2828-2829-2830-2831-2832-2833-2834-2835-2836-2837-2838-2839-2840-2841-2842-2843-2844-2845-2846-2847-2848-2849-2850-2851-2852-2853-2854-2855-2856-2857-2858-2859-2860-2861-2862-2863-2864-2865-2866-2867-2868-2869-2870-2871-2872-2873-2874-2875