

REPORT ON OIL ENGINE MACHINERY.

FRI. 28 JUL. 1922 No. 42085

Received at London Office

FRI. 28 JUL. 1922

Writing Report

19. When handed in at Local Office

26-7-22 Port of Glasgow

Date, First Survey 5-5-20

Last Survey 5-7-1922

Number of Visits 92

Survey held at

Glasgow

on the ~~Single~~ ^{Twin} ~~Triple~~ Screw vessels

Drumra

Tons { Gross 2304.06 Net 1316.70

Built at

Bristol

By whom built

C. Hill & Sons Ltd

Yard No. 146

When built

Engines made at

Glasgow

By whom made

North British Diesel Eng. Works

Engine No. 30

When made

1922

Boilers made at

Annan

By whom made

Cochran & Co. Annan Ltd

Boiler No. 8643

When made

1922

Horse Power

1000

Owners

British India S. Nav. Co. Ltd

Port belonging to

Horse Power as per Rule

185

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Type of Engines

Diesel

2 or 4 stroke cycle

4 Single or double acting

Single

Pressure in cylinders

455 lb. p. sq.

No. of cylinders

6 Each Eng.

No. of cranks

6 Each Eng.

Diameter of cylinders

15"

Stroke

30"

Revolutions per minute

167

Means of ignition

Compression

Kind of fuel used

Above 150° F

Bearing between each crank

Yes

Span of bearings (Page 92, Section 2, par. 7 of Rules)

20 1/2"

Bearing between centres of main bearings

33 1/2"

Is a flywheel fitted

Yes

Diameter of crank shaft journals

as per Rule 9.506

as fitted

9.75

of crank pins

9 3/4"

Breadth of crank webs

as per Rule 18.5

as fitted

Thickness of ditto

as per Rule 5 1/8

as fitted

5 1/8

of flywheel shaft

as per Rule 8.1

as fitted

Diameter of tunnel shaft

as per Rule 7.56

as fitted

7.68

Diameter of thrust shaft

as per Rule 7.94

as fitted

8.25

of screw shaft

as per Rule 8.375

as fitted

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Yes

If the liner is in more than one length are the joints burned

Yes

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

Yes

Are the liners fitted, is the shaft lapped or protected between the liners

Yes

If without liners, is the shaft arranged to run in oil

Water gland fitted to stern tube

None

Length of stern bush

38 1/2"

Diameter of propeller

8' 3"

Propeller

8' 5"

No. of blades

3

state whether moveable

No

Total surface

25.5 square feet

Reversing

Direct

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Yes

Thickness of cylinder liners

1 1/4"

Cylinders fitted with safety valves

Yes

Means of lubrication

Forced oil feed

Are the exhaust pipes and silencers water cooled or lagged with

Insulating material

Yes

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Vessel

Yes

No. of bilge pumps fitted to the main engines

None

Diameter of ditto

5"

Stroke

Electric Motors

Overhauled while the other is at work

No. of auxiliary pumps connected to the main bilge lines

5

How driven

Electric Motors

Pumps

127 Tons per hour

1915

No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room

4-3"

etc.

2250

1915

8-3"

No. of ballast pumps

1

How driven

Electric motor

Sizes of pumps

150 Tons per hour

Is pump fitted with a direct suction from the engine room bilges

Yes

State size

7"

Is a separate auxiliary pump suction fitted in

Room and size

2-4"

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine Room always accessible

Yes

Pipes on Engine Room bulkheads always accessible

Yes

Are all connections with the sea direct on the skin of the ship

Yes

Valves or cocks

Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates

Yes

Charge pipes above or below the deep water line

Both

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Yes

Are cocks, valves and pumps in connection with the machinery accessible at all times

Yes

Are the bilge suction pipes, cocks and valves arranged so as to prevent any

Yes

Is the screw shaft tunnel watertight

Yes

Is it fitted with a watertight door

Yes

Is a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Yes

Air compressors

2

No. of stages

3

Diameters 15 1/2" 13 7/8" 3 3/4" Stroke

14 1/2"

Driven by

Main Engines

Auxiliary air compressors

1

No. of stages

3

Diameters 15 1/8" 8 1/4" 3 3/4" Stroke

8"

Driven by

Electric motor

Small auxiliary air compressors

1

No. of stages

2

Diameters 4 3/4" 1 7/8" Stroke

5"

Driven by

Steam

Engining air pumps

Yes

Diameter

Yes

Stroke

Yes

Driven by

Yes

Auxiliary Diesel Engine crank shafts

as per Rule 6.173

as fitted

6.625

Are the air compressors and their coolers made so as to be easy of access

Yes

RECEIVERS:—No of high pressure air receivers

8

Internal diameter

4-9 3/4"

Cubic capacity of each

2-1.44 cfb.

Seamless, lap welded or riveted longitudinal joint

Seamless

Range of tensile strength

2-3.53 "

Working pressure by Rules

3/8" 1/2"

950 lb.

No. of starting air receivers

2

Internal diameter

54"

Capacity

410 cfb.

Material

Steel

Seamless, lap welded or riveted longitudinal joint

Riveted

Tensile strength

28/32 tons

Thickness

13/16

Working pressure by rules

350 lb.

Is each receiver, which can be isolated,

safety valve as per Rule

one 1/2" dia + fusible plug

Can the internal surfaces of the receivers be examined

Yes

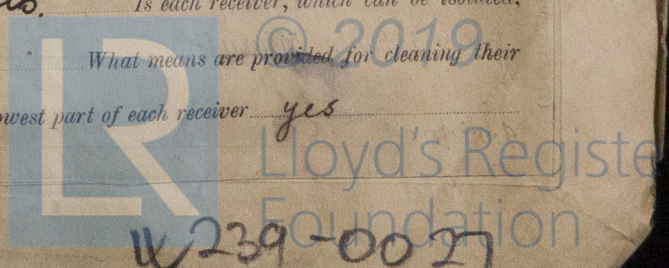
What means are provided for cleaning their

Is there a drain arrangement fitted at the lowest part of each receiver

Yes

SEE GLS. RPT. NO. 42119.

4/9/22



W 239-0027

IS A DONKEY BOILER FITTED? *yes. oil fired* If so, is a report now forwarded? *Previously sent.*
HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	19.4.21 to 21.6.21	✓	900 lb & 30 lb.	M. JS.	
COVERS	1.7.21 to 26.10.21	✓	30 lb.	M. CM.	
JACKETS	31.3.21 to 7.3.22	✓	30 lb.	M. CM.	
PISTON WATER PASSAGES					
MAIN COMPRESSORS—1st STAGE					
2nd ..					
3rd ..					
AIR RECEIVERS—STARTING	9/3/21 to 15/6/21	350 lb.	575 lb.	P.M.E.G.	
INJECTION	19.5.21. 9.6.21	950 lb.	2000 lb.	M.G.H.	
AIR PIPES	22.12.21 / 13.2.22	350 lb.	1050 lb.	H.C. CM.	
FUEL PIPES	✓				
FUEL PUMPS	✓				
SILENCER	✓				
WATER JACKET	✓				
SEPARATE FUEL TANKS	11.5.21. 6.9.21	✓	15 lb.	J.R. HC	

PLANS. Are approved plans forwarded herewith for shafting *no - 26.2.20/15.4.21* Receivers *6.11.20* Separate Tanks *26.10.21*
(If not, state date of approval)

SPARE GEAR

The foregoing is a correct description.

E. Howson.

Manufacturer.

Dates of Survey while building
During progress of work in shops - - 1920. May 5. 19 July 9. Aug 4. Sept 1. 28. 30. Dec 1. 13. 1921. Jan 11. 19. Feb 16. 22. 24. Mar 1. 9. 17. 22. 24. 31. Apr 1. 1. 1922. May 1. 1. 1923. June 1. 1. 1924. July 1. 1. 1925. Aug 1. 1. 1926. Sept 1. 1. 1927. Oct 1. 1. 1928. Nov 1. 1. 1929. Dec 1. 1. 1930. Jan 1. 1. 1931. Feb 1. 1. 1932. Mar 1. 1. 1933. Apr 1. 1. 1934. May 1. 1. 1935. June 1. 1. 1936. July 1. 1. 1937. Aug 1. 1. 1938. Sept 1. 1. 1939. Oct 1. 1. 1940. Nov 1. 1. 1941. Dec 1. 1. 1942. Jan 1. 1. 1943. Feb 1. 1. 1944. Mar 1. 1. 1945. Apr 1. 1. 1946. May 1. 1. 1947. June 1. 1. 1948. July 1. 1. 1949. Aug 1. 1. 1950. Sept 1. 1. 1951. Oct 1. 1. 1952. Nov 1. 1. 1953. Dec 1. 1. 1954. Jan 1. 1. 1955. Feb 1. 1. 1956. Mar 1. 1. 1957. Apr 1. 1. 1958. May 1. 1. 1959. June 1. 1. 1960. July 1. 1. 1961. Aug 1. 1. 1962. Sept 1. 1. 1963. Oct 1. 1. 1964. Nov 1. 1. 1965. Dec 1. 1. 1966. Jan 1. 1. 1967. Feb 1. 1. 1968. Mar 1. 1. 1969. Apr 1. 1. 1970. May 1. 1. 1971. June 1. 1. 1972. July 1. 1. 1973. Aug 1. 1. 1974. Sept 1. 1. 1975. Oct 1. 1. 1976. Nov 1. 1. 1977. Dec 1. 1. 1978. Jan 1. 1. 1979. Feb 1. 1. 1980. Mar 1. 1. 1981. Apr 1. 1. 1982. May 1. 1. 1983. June 1. 1. 1984. July 1. 1. 1985. Aug 1. 1. 1986. Sept 1. 1. 1987. Oct 1. 1. 1988. Nov 1. 1. 1989. Dec 1. 1. 1990. Jan 1. 1. 1991. Feb 1. 1. 1992. Mar 1. 1. 1993. Apr 1. 1. 1994. May 1. 1. 1995. June 1. 1. 1996. July 1. 1. 1997. Aug 1. 1. 1998. Sept 1. 1. 1999. Oct 1. 1. 2000. Nov 1. 1. 2001. Dec 1. 1. 2002. Jan 1. 1. 2003. Feb 1. 1. 2004. Mar 1. 1. 2005. Apr 1. 1. 2006. May 1. 1. 2007. June 1. 1. 2008. July 1. 1. 2009. Aug 1. 1. 2010. Sept 1. 1. 2011. Oct 1. 1. 2012. Nov 1. 1. 2013. Dec 1. 1. 2014. Jan 1. 1. 2015. Feb 1. 1. 2016. Mar 1. 1. 2017. Apr 1. 1. 2018. May 1. 1. 2019. June 1. 1. 2020. July 1. 1. 2021. Aug 1. 1. 2022. Sept 1. 1. 2023. Oct 1. 1. 2024. Nov 1. 1. 2025. Dec 1. 1. 2026. Jan 1. 1. 2027. Feb 1. 1. 2028. Mar 1. 1. 2029. Apr 1. 1. 2030. May 1. 1. 2031. June 1. 1. 2032. July 1. 1. 2033. Aug 1. 1. 2034. Sept 1. 1. 2035. Oct 1. 1. 2036. Nov 1. 1. 2037. Dec 1. 1. 2038. Jan 1. 1. 2039. Feb 1. 1. 2040. Mar 1. 1. 2041. Apr 1. 1. 2042. May 1. 1. 2043. June 1. 1. 2044. July 1. 1. 2045. Aug 1. 1. 2046. Sept 1. 1. 2047. Oct 1. 1. 2048. Nov 1. 1. 2049. Dec 1. 1. 2050. Jan 1. 1. 2051. Feb 1. 1. 2052. Mar 1. 1. 2053. Apr 1. 1. 2054. May 1. 1. 2055. June 1. 1. 2056. July 1. 1. 2057. Aug 1. 1. 2058. Sept 1. 1. 2059. Oct 1. 1. 2060. Nov 1. 1. 2061. Dec 1. 1. 2062. Jan 1. 1. 2063. Feb 1. 1. 2064. Mar 1. 1. 2065. Apr 1. 1. 2066. May 1. 1. 2067. June 1. 1. 2068. July 1. 1. 2069. Aug 1. 1. 2070. Sept 1. 1. 2071. Oct 1. 1. 2072. Nov 1. 1. 2073. Dec 1. 1. 2074. Jan 1. 1. 2075. Feb 1. 1. 2076. Mar 1. 1. 2077. Apr 1. 1. 2078. May 1. 1. 2079. June 1. 1. 2080. July 1. 1. 2081. Aug 1. 1. 2082. Sept 1. 1. 2083. Oct 1. 1. 2084. Nov 1. 1. 2085. Dec 1. 1. 2086. Jan 1. 1. 2087. Feb 1. 1. 2088. Mar 1. 1. 2089. Apr 1. 1. 2090. May 1. 1. 2091. June 1. 1. 2092. July 1. 1. 2093. Aug 1. 1. 2094. Sept 1. 1. 2095. Oct 1. 1. 2096. Nov 1. 1. 2097. Dec 1. 1. 2098. Jan 1. 1. 2099. Feb 1. 1. 2100. Mar 1. 1. 2101. Apr 1. 1. 2102. May 1. 1. 2103. June 1. 1. 2104. July 1. 1. 2105. Aug 1. 1. 2106. Sept 1. 1. 2107. Oct 1. 1. 2108. Nov 1. 1. 2109. Dec 1. 1. 2110. Jan 1. 1. 2111. Feb 1. 1. 2112. Mar 1. 1. 2113. Apr 1. 1. 2114. May 1. 1. 2115. June 1. 1. 2116. July 1. 1. 2117. Aug 1. 1. 2118. Sept 1. 1. 2119. Oct 1. 1. 2120. Nov 1. 1. 2121. Dec 1. 1. 2122. Jan 1. 1. 2123. Feb 1. 1. 2124. Mar 1. 1. 2125. Apr 1. 1. 2126. May 1. 1. 2127. June 1. 1. 2128. July 1. 1. 2129. Aug 1. 1. 2130. Sept 1. 1. 2131. Oct 1. 1. 2132. Nov 1. 1. 2133. Dec 1. 1. 2134. Jan 1. 1. 2135. Feb 1. 1. 2136. Mar 1. 1. 2137. Apr 1. 1. 2138. May 1. 1. 2139. June 1. 1. 2140. July 1. 1. 2141. Aug 1. 1. 2142. Sept 1. 1. 2143. Oct 1. 1. 2144. Nov 1. 1. 2145. Dec 1. 1. 2146. Jan 1. 1. 2147. Feb 1. 1. 2148. Mar 1. 1. 2149. Apr 1. 1. 2150. May 1. 1. 2151. June 1. 1. 2152. July 1. 1. 2153. Aug 1. 1. 2154. Sept 1. 1. 2155. Oct 1. 1. 2156. Nov 1. 1. 2157. Dec 1. 1. 2158. Jan 1. 1. 2159. Feb 1. 1. 2160. Mar 1. 1. 2161. Apr 1. 1. 2162. May 1. 1. 2163. June 1. 1. 2164. July 1. 1. 2165. Aug 1. 1. 2166. Sept 1. 1. 2167. Oct 1. 1. 2168. Nov 1. 1. 2169. Dec 1. 1. 2170. Jan 1. 1. 2171. Feb 1. 1. 2172. Mar 1. 1. 2173. Apr 1. 1. 2174. May 1. 1. 2175. June 1. 1. 2176. July 1. 1. 2177. Aug 1. 1. 2178. Sept 1. 1. 2179. Oct 1. 1. 2180. Nov 1. 1. 2181. Dec 1. 1. 2182. Jan 1. 1. 2183. Feb 1. 1. 2184. Mar 1. 1. 2185. Apr 1. 1. 2186. May 1. 1. 2187. June 1. 1. 2188. July 1. 1. 2189. Aug 1. 1. 2190. Sept 1. 1. 2191. Oct 1. 1. 2192. Nov 1. 1. 2193. Dec 1. 1. 2194. Jan 1. 1. 2195. Feb 1. 1. 2196. Mar 1. 1. 2197. Apr 1. 1. 2198. May 1. 1. 2199. June 1. 1. 2200. July 1. 1. 2201. Aug 1. 1. 2202. Sept 1. 1. 2203. Oct 1. 1. 2204. Nov 1. 1. 2205. Dec 1. 1. 2206. Jan 1. 1. 2207. Feb 1. 1. 2208. Mar 1. 1. 2209. Apr 1. 1. 2210. May 1. 1. 2211. June 1. 1. 2212. July 1. 1. 2213. Aug 1. 1. 2214. Sept 1. 1. 2215. Oct 1. 1. 2216. Nov 1. 1. 2217. Dec 1. 1. 2218. Jan 1. 1. 2219. Feb 1. 1. 2220. Mar 1. 1. 2221. Apr 1. 1. 2222. May 1. 1. 2223. June 1. 1. 2224. July 1. 1. 2225. Aug 1. 1. 2226. Sept 1. 1. 2227. Oct 1. 1. 2228. Nov 1. 1. 2229. Dec 1. 1. 2230. Jan 1. 1. 2231. Feb 1. 1. 2232. Mar 1. 1. 2233. Apr 1. 1. 2234. May 1. 1. 2235. June 1. 1. 2236. July 1. 1. 2237. Aug 1. 1. 2238. Sept 1. 1. 2239. Oct 1. 1. 2240. Nov 1. 1. 2241. Dec 1. 1. 2242. Jan 1. 1. 2243. Feb 1. 1. 2244. Mar 1. 1. 2245. Apr 1. 1. 2246. May 1. 1. 2247. June 1. 1. 2248. July 1. 1. 2249. Aug 1. 1. 2250. Sept 1. 1. 2251. Oct 1. 1. 2252. Nov 1. 1. 2253. Dec 1. 1. 2254. Jan 1. 1. 2255. Feb 1. 1. 2256. Mar 1. 1. 2257. Apr 1. 1. 2258. May 1. 1. 2259. June 1. 1. 2260. July 1. 1. 2261. Aug 1. 1. 2262. Sept 1. 1. 2263. Oct 1. 1. 2264. Nov 1. 1. 2265. Dec 1. 1. 2266. Jan 1. 1. 2267. Feb 1. 1. 2268. Mar 1. 1. 2269. Apr 1. 1. 2270. May 1. 1. 2271. June 1. 1. 2272. July 1. 1. 2273. Aug 1. 1. 2274. Sept 1. 1. 2275. Oct 1. 1. 2276. Nov 1. 1. 2277. Dec 1. 1. 2278. Jan 1. 1. 2279. Feb 1. 1. 2280. Mar 1. 1. 2281. Apr 1. 1. 2282. May 1. 1. 2283. June 1. 1. 2284. July 1. 1. 2285. Aug 1. 1. 2286. Sept 1. 1. 2287. Oct 1. 1. 2288. Nov 1. 1. 2289. Dec 1. 1. 2290. Jan 1. 1. 2291. Feb 1. 1. 2292. Mar 1. 1. 2293. Apr 1. 1. 2294. May 1. 1. 2295. June 1. 1. 2296. July 1. 1. 2297. Aug 1. 1. 2298. Sept 1. 1. 2299. Oct 1. 1. 2300. Nov 1. 1. 2301. Dec 1. 1. 2302. Jan 1. 1. 2303. Feb 1. 1. 2304. Mar 1. 1. 2305. Apr 1. 1. 2306. May 1. 1. 2307. June 1. 1. 2308. July 1. 1. 2309. Aug 1. 1. 2310. Sept 1. 1. 2311. Oct 1. 1. 2312. Nov 1. 1. 2313. Dec 1. 1. 2314. Jan 1. 1. 2315. Feb 1. 1. 2316. Mar 1. 1. 2317. Apr 1. 1. 2318. May 1. 1. 2319. June 1. 1. 2320. July 1. 1. 2321. Aug 1. 1. 2322. Sept 1. 1. 2323. Oct 1. 1. 2324. Nov 1. 1. 2325. Dec 1. 1. 2326. Jan 1. 1. 2327. Feb 1. 1. 2328. Mar 1. 1. 2329. Apr 1. 1. 2330. May 1. 1. 2331. June 1. 1. 2332. July 1. 1. 2333. Aug 1. 1. 2334. Sept 1. 1. 2335. Oct 1. 1. 2336. Nov 1. 1. 2337. Dec 1. 1. 2338. Jan 1. 1. 2339. Feb 1. 1. 2340. Mar 1. 1. 2341. Apr 1. 1. 2342. May 1. 1. 2343. June 1. 1. 2344. July 1. 1. 2345. Aug 1. 1. 2346. Sept 1. 1. 2347. Oct 1. 1. 2348. Nov 1. 1. 2349. Dec 1. 1. 2350. Jan 1. 1. 2351. Feb 1. 1. 2352. Mar 1. 1. 2353. Apr 1. 1. 2354. May 1. 1. 2355. June 1. 1. 2356. July 1. 1. 2357. Aug 1. 1. 2358. Sept 1. 1. 2359. Oct 1. 1. 2360. Nov 1. 1. 2361. Dec 1. 1. 2362. Jan 1. 1. 2363. Feb 1. 1. 2364. Mar 1. 1. 2365. Apr 1. 1. 2366. May 1. 1. 2367. June 1. 1. 2368. July 1. 1. 2369. Aug 1. 1. 2370. Sept 1. 1. 2371. Oct 1. 1. 2372. Nov 1. 1. 2373. Dec 1. 1. 2374. Jan 1. 1. 2375. Feb 1. 1. 2376. Mar 1. 1. 2377. Apr 1. 1. 2378. May 1. 1. 2379. June 1. 1. 2380. July 1. 1. 2381. Aug 1. 1. 2382. Sept 1. 1. 2383. Oct 1. 1. 2384. Nov 1. 1. 2385. Dec 1. 1. 2386. Jan 1. 1. 2387. Feb 1. 1. 2388. Mar 1. 1. 2389. Apr 1. 1. 2390. May 1. 1. 2391. June 1. 1. 2392. July 1. 1. 2393. Aug 1. 1. 2394. Sept 1. 1. 2395. Oct 1. 1. 2396. Nov 1. 1. 2397. Dec 1. 1. 2398. Jan 1. 1. 2399. Feb 1. 1. 2400. Mar 1. 1. 2401. Apr 1. 1. 2402. May 1. 1. 2403. June 1. 1. 2404. July 1. 1. 2405. Aug 1. 1. 2406. Sept 1. 1. 2407. Oct 1. 1. 2408. Nov 1. 1. 2409. Dec 1. 1. 2410. Jan 1. 1. 2411. Feb 1. 1. 2412. Mar 1. 1. 2413. Apr 1. 1. 2414. May 1. 1. 2415. June 1. 1. 2416. July 1. 1. 2417. Aug 1. 1. 2418. Sept 1. 1. 2419. Oct 1. 1. 2420. Nov 1. 1. 2421. Dec 1. 1. 2422. Jan 1. 1. 2423. Feb 1. 1. 2424. Mar 1. 1. 2425. Apr 1. 1. 2426. May 1. 1. 2427. June 1. 1. 2428. July 1. 1. 2429. Aug 1. 1. 2430. Sept 1. 1. 2431. Oct 1. 1. 2432. Nov 1. 1. 2433. Dec 1. 1. 2434. Jan 1. 1. 2435. Feb 1. 1. 2436. Mar 1. 1. 2437. Apr 1. 1. 2438. May 1. 1. 2439. June 1. 1. 2440. July 1. 1. 2441. Aug 1. 1. 2442. Sept 1. 1. 2443. Oct 1. 1. 2444. Nov 1. 1. 2445. Dec 1. 1. 2446. Jan 1. 1. 2447. Feb 1. 1. 2448. Mar 1. 1. 2449. Apr 1. 1. 2450. May 1. 1. 2451. June 1. 1. 2452. July 1. 1. 2453. Aug 1. 1. 2454. Sept 1. 1. 2455. Oct 1. 1. 2456. Nov 1. 1. 2457. Dec 1. 1. 2458. Jan 1. 1. 2459. Feb 1. 1. 2460. Mar 1. 1. 2461. Apr 1. 1. 2462. May 1. 1. 2463. June 1. 1. 2464. July 1. 1. 2465. Aug 1. 1. 2466. Sept 1. 1. 2467. Oct 1. 1. 2468. Nov 1. 1. 2469. Dec 1. 1. 2470. Jan 1. 1. 2471. Feb 1. 1. 2472. Mar 1. 1. 2473. Apr 1. 1. 2474. May 1. 1. 2475. June 1. 1. 2476. July 1. 1. 2477. Aug 1. 1. 2478. Sept 1. 1. 2479. Oct 1. 1. 2480. Nov 1. 1. 2481. Dec 1. 1. 2482. Jan 1. 1. 2483. Feb 1. 1. 2484. Mar 1. 1. 2485. Apr 1. 1. 2486. May 1. 1. 2487. June 1. 1. 2488. July 1. 1. 2489. Aug 1. 1. 2490. Sept 1. 1. 2491. Oct 1. 1. 2492. Nov 1. 1. 2493. Dec 1. 1. 2494. Jan 1. 1. 2495. Feb 1. 1. 2496. Mar 1. 1. 2497. Apr 1. 1. 2498. May 1. 1. 2499. June 1. 1. 2500. July 1. 1. 2501. Aug 1. 1. 2502. Sept 1. 1. 2503. Oct 1. 1. 2504. Nov 1. 1. 2505. Dec 1. 1. 2506. Jan 1. 1. 2507. Feb 1. 1. 2508. Mar 1. 1. 2509. Apr 1. 1. 2510. May 1. 1. 2511. June 1. 1. 2512. July 1. 1. 2513. Aug 1. 1. 2514. Sept 1. 1. 2515. Oct 1. 1. 2516. Nov 1. 1. 2517. Dec 1. 1. 2518. Jan 1. 1. 2519. Feb 1. 1. 2520. Mar 1. 1. 2521. Apr 1. 1. 2522. May 1. 1. 2523. June 1. 1. 2524. July 1. 1. 2525. Aug 1. 1. 2526. Sept 1. 1. 2527. Oct 1. 1. 2528. Nov 1. 1. 2529. Dec 1. 1. 2530. Jan 1. 1. 2531. Feb 1. 1. 2532. Mar 1. 1. 2533. Apr 1. 1. 2534. May 1. 1. 2535. June 1. 1. 2536. July 1. 1. 2537. Aug 1. 1. 2538. Sept 1. 1. 2539. Oct 1. 1. 2540. Nov 1. 1. 2541. Dec 1. 1. 2542. Jan 1. 1. 2543. Feb 1. 1. 2544. Mar 1. 1. 2545. Apr 1. 1. 2546. May 1. 1. 2547. June 1. 1. 2548. July 1. 1. 2549. Aug 1. 1. 2550. Sept 1. 1. 2551. Oct 1. 1. 2552. Nov 1. 1. 2553. Dec 1. 1. 2554. Jan 1. 1. 2555. Feb 1. 1. 2556. Mar 1. 1. 2557. Apr 1. 1. 2558. May 1. 1. 2559. June 1. 1. 2560. July 1. 1. 2561. Aug 1. 1. 2562. Sept 1. 1. 2563. Oct 1. 1. 2564. Nov 1. 1. 2565. Dec 1. 1. 2566. Jan 1. 1. 2567. Feb 1. 1. 2568. Mar 1. 1. 2569. Apr 1. 1. 2570. May 1. 1. 2571. June 1. 1. 2572. July 1. 1. 2573. Aug 1. 1. 2574. Sept 1. 1. 2575. Oct 1. 1. 2576. Nov 1. 1. 2577. Dec 1. 1. 2578. Jan 1. 1. 2579. Feb 1. 1. 2580. Mar 1. 1. 2581. Apr 1. 1. 2582. May 1. 1. 2583. June 1. 1. 2584. July 1. 1. 2585. Aug 1. 1. 2586. Sept 1. 1. 2587. Oct 1. 1. 2588. Nov 1. 1. 2589. Dec 1. 1. 2590. Jan 1. 1. 2591. Feb 1. 1. 2592. Mar 1. 1. 2593. Apr 1. 1. 2594. May 1. 1. 2595. June 1. 1. 2596. July 1. 1. 2597. Aug 1. 1. 2598. Sept 1. 1. 2599. Oct 1. 1. 2600. Nov 1. 1. 2601. Dec 1. 1. 2602. Jan 1. 1. 2603. Feb 1. 1. 2604. Mar 1. 1. 2605. Apr 1. 1. 2606. May 1. 1. 2607. June 1. 1. 2608. July 1. 1. 2609. Aug 1. 1. 2610. Sept 1. 1. 2611. Oct 1. 1. 2612. Nov 1. 1. 2613. Dec 1. 1. 2614. Jan 1. 1. 2615. Feb 1. 1. 2616. Mar 1. 1. 2617. Apr 1. 1. 2618. May 1. 1. 2619. June 1. 1. 2620. July 1. 1. 2621. Aug 1. 1. 2622. Sept 1. 1. 2623. Oct 1. 1. 2624. Nov 1. 1. 2625. Dec 1. 1. 2626. Jan 1. 1. 2627. Feb 1. 1. 2628. Mar 1. 1. 2629. Apr 1. 1. 2630. May 1. 1. 2631. June 1. 1. 2632. July 1. 1. 2633. Aug 1. 1. 2634. Sept 1. 1. 2635. Oct 1. 1. 2636. Nov 1. 1. 2637. Dec 1. 1. 2638. Jan 1. 1. 2639. Feb 1. 1. 2640. Mar 1. 1. 2641. Apr 1. 1. 2642. May 1. 1. 2643. June 1. 1. 2644. July 1. 1. 2645. Aug 1. 1. 2646. Sept 1. 1. 2647. Oct 1. 1. 2648. Nov 1. 1. 2649. Dec 1. 1. 2650. Jan 1. 1. 2651. Feb 1. 1. 2652. Mar 1. 1. 2653. Apr 1. 1. 2654. May 1. 1. 2655. June 1. 1. 2656. July 1. 1. 2657. Aug 1. 1. 2658. Sept 1. 1. 2659. Oct 1. 1. 2660. Nov 1. 1. 2661. Dec 1. 1. 2662. Jan 1. 1. 2663. Feb 1. 1. 2664. Mar 1. 1. 2665. Apr 1. 1. 2666. May 1. 1. 2667. June 1. 1. 2668. July 1. 1. 2669. Aug 1. 1. 2670. Sept 1. 1. 2671. Oct 1. 1. 2672. Nov 1. 1. 2673. Dec 1. 1. 2674. Jan 1. 1. 2675. Feb 1. 1. 2676. Mar 1. 1. 2677. Apr 1. 1. 2678. May 1. 1. 2679. June 1. 1. 2680. July 1. 1. 2681. Aug 1. 1. 2682. Sept 1. 1. 2683. Oct 1. 1. 2684. Nov 1. 1. 2685. Dec 1. 1. 2686. Jan 1. 1. 2687. Feb 1. 1. 2688. Mar 1. 1. 2689. Apr 1. 1. 2690. May 1. 1. 2691. June 1. 1. 2692. July 1. 1. 2693. Aug 1. 1. 2694. Sept 1. 1. 2695. Oct 1. 1. 2696. Nov 1. 1. 2697. Dec 1. 1. 2698. Jan 1. 1. 2699. Feb 1. 1. 2700. Mar 1. 1. 2701. Apr 1. 1. 2702. May 1. 1. 2703. June 1. 1. 2704. July 1. 1. 2705. Aug 1. 1. 2706. Sept 1. 1. 2707. Oct 1. 1. 2708. Nov 1. 1. 2709. Dec 1. 1. 2710. Jan 1. 1. 2711. Feb 1. 1. 2712. Mar 1. 1. 2713. Apr 1. 1. 2714. May 1. 1. 2715. June 1. 1. 2716. July 1. 1. 2717. Aug 1. 1. 2718. Sept 1. 1. 2719. Oct 1. 1. 2720. Nov 1. 1. 2721. Dec 1. 1. 2722. Jan 1. 1. 2723. Feb 1. 1. 2724. Mar 1. 1. 2725. Apr 1. 1. 2726. May 1. 1. 2727. June 1. 1. 2728. July 1. 1. 2729. Aug 1. 1. 2730. Sept 1. 1. 2731. Oct 1. 1. 2732. Nov 1. 1. 2733. Dec 1. 1. 2734. Jan 1. 1. 2735. Feb 1. 1. 2736. Mar 1. 1. 2737. Apr 1. 1. 2738. May 1. 1. 2739. June 1. 1. 2740. July 1. 1. 2741. Aug 1. 1. 2742. Sept 1. 1. 2743. Oct 1. 1. 2744. Nov 1. 1. 2745. Dec 1. 1. 2746. Jan 1. 1. 2747. Feb 1. 1. 2748. Mar 1. 1. 2749. Apr 1. 1. 2750. May 1. 1. 2751. June 1. 1. 2752. July 1. 1. 2753. Aug 1. 1. 2754. Sept 1. 1. 2755. Oct 1. 1. 2756. Nov 1. 1. 2757. Dec 1. 1. 2758. Jan 1. 1. 2759. Feb 1. 1. 2760. Mar 1. 1. 2761. Apr 1. 1. 2762. May 1. 1. 2763. June 1. 1. 2764. July 1. 1. 2765. Aug 1. 1. 2766. Sept 1. 1. 2767. Oct 1. 1. 2768. Nov 1. 1. 2769. Dec 1. 1. 2770. Jan 1. 1. 2771. Feb 1. 1. 2772. Mar 1. 1. 2773. Apr 1. 1. 2774. May 1. 1. 2775. June 1. 1.