

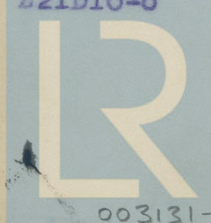
Lloyds.

ENGINE NO. 1384.

7th April 1930.

List of Spare Gear for Main Engine.

Part	Symbol No.	Drg. No.	No. off each Engine.
<u>Working cylinder cover complete with all valves, valve seats, springs etc. fitted to it comprising :-</u>			
Cylinder cover (top part)	Z14D2	O.1732	1
Cylinder cover (bottom part)	Z14D26	MPB 112	1
Casing for fuel valve.	Z14D50	MPB 113	1
Fuel valve complete.	Z16D2	MPB 408	1
Fuel delivery non-return valve complete.	Z16D4	MPB 404	1
INJECTION AIR NON RETURN VALVE Safety and compression release valve complete.	Z16D6	MPB 413	1
	Z18D2	MPB 704	1
Indicator valve complete	Z19D2	STD 500	1
<u>Working Cylinder liner complete.</u>	Z5D2	MPA1247	1
<u>Working Cylinder Piston & Skirt complete, comprising :-</u>			
Piston Head.	Z10D2	MPA 509	1
" " INTERNAL CASTING	Z10D46	MPA 511	1
" " Nuts.	Z10D2-1	MPA 509	6
" " Studs.	Z10D2-2	MPA 509	6
" Skirt	Z10D4	MPA 510	1
" Rings.	Z10D8-1	MPA 510	8
Stop Pins.	Z10D8-2	MPA 510	8
<u>Working Cylinder Piston complete comprising :-</u>			
Piston Head.	Z10D2	MPA 509	1
" " INTERNAL CASTING	Z10D46	MPA 511	1
" " Studs	Z10D2-2	MPA 509	6
" " Nuts.	Z10D2-1	MPA 509	6
" " Rings	Z10D8-1	MPA 521	5
<u>Bevel Gear wheel of each size used comprising :-</u>			
Cam Shaft Wheel.	Z22D4-4	O.1690	1
Vertical Shaft Wheel.	Z22D4-3	O.1690	1
Cam Shaft Wheel.	Z21D10-8	O.1690	1



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Lloyd's Register
Foundation

003131-003137-0042

Part.	Symbol No.	Drg. No.	No. off each Engine.
<u>Main Bearing Spares Comprising :-</u>			
Bottom half bearing (short)	Z1D12-5	0.1689	1
" " " (long)	Z1D12-1	0.1688	1
Main Bearing Studs	Z1D12-11	0.1658	2
" " Nuts.	Z1D12-15	0.1658	2
" " (Compressor) Studs.	Z45D4-8	0.1675	2
" " " Nuts.	Z45D4-12	0.1675	2

Main Connecting Rod Spares comprising :-

Top end top half.	Z9D2-15	0.1700	2
Top end bottom half bushes.	Z9D2-24	0.1700	2
Top end bolts.	Z9D2-18	0.1740	2
Top end nuts.	Z9D2-19	0.1700	2
Bottom end top half.	Z9D2-1	0.1699	1
Bottom end bottom half.	Z9D2-2	0.1699	1
Bottom end bolts.	Z9D2-4	0.1740	2
Bottom end nuts.	Z9D2-5	0.1699	2
Shims for bottom end bearing.	Z9D2-3	0.1699	2 sets
Liners for bottom of rod.	Z9D2-12	MPA 413	8

Compressor Connecting Rod Spares, comprising :-

Top end top half.	Z48D20-15	0.1475	1
Top end bottom half.	Z48D20-16	0.1475	1
Shims for top end bearing.	Z48D20-17	0.1475	2 sets
Top end bolts.	Z48D20-18	0.1740	2
Top end nuts.	Z48D20-19	0.1475	2
Bottom end top half.	Z48D20-1	0.1665	1
Bottom end bottom half.	Z48D20-2	0.1665	1
Shims for bottom end bearing.	Z48D20-3	0.1665	2 sets
Bottom end bolts.	Z48D20-4	0.1740	2
Bottom end nuts.	Z48D20-5	0.1665	2
Liners for bottom of rod.	Z48D20-12	MPF 604	5



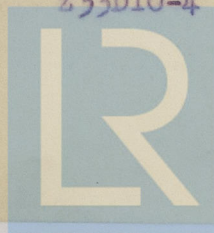
Part	Symbol No.	Drg. No.	No. off each Engine.
<u>Scavenge Pump Connecting Rod Spares, comprising :-</u>			
Top end top half.	Z55D6-15	0.1677	1
Top end bottom half.	Z55D6-16	0.1677	1
Shims for top end bearing.	Z55D6-17	0.1677	2 sets
Bottom end top half.	Z55D6-1	0.1668	1
Bottom end bottom half.	Z55D6-2	0.1668	1
Shims for bottom end bearing.	Z55D6-3	0.1668	2 sets
<u>Fuel Pump Complete for One Cylinder, comprising :-</u>			
Housing top.	Z23D2-286	0.1788	1
Housing.	Z23D2-1	0.1788	1
Plunger.	Z23D2-28	MPE 206	1
Plunger guide.	Z23D2-30	MPE 206	1
Guide block.	Z23D2-182	MPE 206	1
Guide block pin.	Z23D2-183	MPE 206	1
Spring cap.	Z23D2-188	MPE 207	1
Spring.	Z23D2-191	MPE 207	1
Drain.	Z23D2-189	MPE 206	1
Eccentric shoe for One	Z23D2-184	MPE 207	1
Eccentric.	Z23D2-200	MPE 207	1
<u>Compressor Valves & Valve Seats.</u>			
H.P. compressor suction valves.	Z48D2-8	0.1752	1
H.P. compressor delivery valves.	Z48D2-15	0.1752	1
M ₂ P compressor suction valves.	Z48D8-5	0.1752	3
M ₂ P compressor delivery valves.	Z48D8-12	0.1752	3
M ₁ P compressor suction valves.	Z48D4-8	0.1752	4
M ₁ P Compressor delivery valves.	Z48D4-15	0.1752	4
L.P. compressor suction valves.	Z48D10-10	0.1752	9
L.P. " delivery "	Z48D10-17	0.1752	8
H.P. " suction valve seat.	Z48D2-9	0.1752	1
H.P. " Delivery " "	Z48D2-15	0.1752	1

Part.	Symbol No.	Drg. No.	No. off each Engine.
<u>Compressor Valves &c. (Contd.)</u>			
M ₂ P Compressor Suction valve seats.	Z48D8-6	0.1752	3
M ₂ P Compressor delivery valve seats.	Z48D8-13	0.1752	3
M ₁ P Compressor Suction Valve seats.	Z48D4-9	0.1752	4
M ₁ P Compressor delivery valve seats.	Z48D4-16	0.1752	4
L.P. Compressor suction valve seats.	Z48D10-11	0.1752	9
L.P. Compressor delivery valve seats.	Z48D10-18	0.1752	8
Coupling bolts for crankshaft to thrustshaft.	Z8D4-9	0.1701	8
Coupling bolt nuts.	Z8D4-10	0.1701	8
Booster Scavenging pump valves.	Z55D12-3	P.1632	24
" " valve springs.	Z55D12-8	MPB 408	1
Fuel valve complete.	Z16D2	MPB 408	1
Safety and compression release valve complete.	Z18D2	MPB704	1
Safety valve for injection air receiver complete.	ZDA80-38 ZDA80-39 ZDA80-40 ZDA80-41 ZDA80-42	SHEET D A 18	1
Safety valve for starting air receiver complete.	ZEA 52		1
Main scavenging pump suction valves.	Z34D42-6	STU 101	9
Main scavenging pump suction valve springs.	Z34D42-7	STU 303	12
Main scavenging pump disch. valves.	Z34D44-6	STU 101	9
Main scavenging pump disch. valve springs.	Z34D44-7	STU 303	12
Scavenge Trunk Valve Plates	Z34D14-1	MPH 717	230
Thrust Block Pads.	Z802-5	MPA 727	6
Safety valve for L.P. inter- cooler complete.	ZDA 68	SHEET DA.	1



Part.	Symbol No.	Drg. No.	No. off each Engine.
<u>Compressor valves &c. (Contd):-</u>			
Safety valve for 2nd M.P. intercooler complete.	ZDA 72	SHEET DA	1
Safety valve for 1st M.P. intercooler complete.	ZDA 70	SHEET DA	1
			1
<u>Main Engine Piston Rings -</u>			
, Plain piston rings 670 x 11.9 x 22	Z10D8-1	MPA 521	15
Piston skirt rings 670 x 11.9 x 22.	Z10D8-1	MPA 521	9
Scavenge pump piston ring, 1100 x 19.9 x 34.	Z55D2-1	O.1723	1
L.P. compressor piston rings, 650 x 13.9 x 19.	Z48D22-1	MPF 126	3
M.P. compressor piston rings, 1580 x 11.9 x 16	Z48D16-1	MPF 130	4
M ₂ P compressor piston rings, 480 x 10.9 x 15.	Z48D16-3	MPF 130	4
M ₂ P COMPRESSOR PISTON RING 480x11.9x15	Z48D16-1	MPF 130	CNE
H.P. compressor piston rings, 150 x 7.9 x 4.5.	Z48D14-1	MPF 128	4
H.P. compressor piston rings, 150 x 7.9 x 4.5.	Z48D14-2	MPF 128	4
Main engine piston rod stuffing box wearing rings.	Z4D66-3	MPA 297	6
Main engine piston rod stuffing box pressure rings.	Z4D66-4	MPA 297	3
PWS. stuffing box packing rings.	Z15D2-31	MPL 557	28
" " " " ring springs.	Z15D2-32	MPL 557	28
" telescopic inlet pipes.	Z15D8-12	MPL 551	2
" " " flanges.	Z15D8-14	MPL 551	2
Fuel pump suction valves.	Z23D2-15	MPE 104	2
" " delivery "	Z23D2-16	MPE 104	2
" " " non-return valves.	Z16D4-3	MPB 404	2
Fuel valve spindles.	Z16D2-17	MPB 411	6
" " loose collars.	Z16D2-18	MPB 410	1

Part.	Symbol No.	Drg. No.	No. off each Engine.
[REDACTED]			
Fuel valve spring guides.	Z16D2-10	PB 411	2
" " atomiser.	Z16D2-20	0.1801	1
" " sprayers.	Z16D2-21	0.1801	6
" " sprayer nuts.	Z16D2-22	0.1801	6
" " stuffing box glands.	Z16D2-7	MPB 410	6
Cylinder cover studs.	Z4D32-6	MPA1204	12
" " nuts.	Z4D32-7	MPA1204	12
Inlet ball valves for cylinder lubricator (large)	Z32D2		4
Inlet ball valves for cylinder lubricator (small)	Z32D2		4
Window glasses for cylinder lubricator	Z32D2		8
Oil level glasses for cylinder lubricator.	Z32D2		2
Complete pump element.	Z32D2		1
<i>CYLINDER LUBRICATION NON RETURN VALVES</i>	ZDL56	SKETCH	ONE
<u>Engine Driven Pumps:-</u>			
Jacket pump bucket rings.	Z33D2-1	0.1726	3
Bilge & sanitary " "	Z33D6-1	0.1728	3
Piston cooling pump bucket rings.	Z33D4-1	0.1750	3
Lub. oil pump bucket rings.	Z33D18-49	0.1765	6
Jacket pump suction valve seats.	Z33D8-3	0.1741	2
Jacket pump disch. valve seats.	Z33D8-4	0.1741	2
Jacket pump Kinghorn valves.	Z33D8-5	0.1741	8 sets
Bilge & sanitary pump suction valve seats.	Z33D22-3	0.1742	2
Bilge & sanitary pump discharge valve seats.	Z33D22-4	0.1742	2
Bilge & sanitary pump Kinghorn valves.	Z33D22-5	0.1742	8 sets
Piston cooling pump suction valve seats.	Z33D10-3	0.1758	1
Piston cooling pump discharge valve seats.	Z33D10-4	0.1758	1



Part.	Symbol No.	Drz. No.	No. off each Engine
<u>Engine Driven Pumps (Contd.)</u>			
Piston cooling pump Kinghorn valves.	Z33D10-5	0.1758	4 sets.
Lub. oil pump suction & discharge valve seats.	Z33D18-31	0.1766	2
Lub. oil pump suction & discharge valve seats.	Z33D18-30	0.1766	20
Lub. oil pump suction & discharge valve seats.	 	 	
Brass cones for valve on injection air receiver.	ZDA80-3	SHEET DA 17	5
Brass cones for valves on spare air receiver.	ZDA80-16	SHEET DA 17	1
Brass cones for $\frac{1}{2}$ " H.P. air valves.	ZDA 50-4	SHEET DA	6
Brass cones for $\frac{1}{4}$ " H.P. air valves.	ZDA92-3	SHEET DA	12
10 ft. length of 5" O.D. L.P. discharge pipe.	ZD26 A	SHEET DA 2	1
Flange.	ZD26A-1	0.1817	1
"	ZD26A-2		1
"	ZD28A-1		1
9 ft. length of $3\frac{1}{4}$ " O.D. 1st M.P. suction pipe	ZD30A	SHEET DA2	1
Flange for $3\frac{1}{4}$ " O.D. pipe	ZD30A-1	0.1846	1
Shoulder for $3\frac{1}{4}$ " O.D. pipe.	ZDA226	SHEET DA	1
15 ft. length of 3" O.D. 1st M.P. discharge pipe.	ZD32A	SHEET DA2	1
Flange for 3" O.D. pipe	ZD32A-1	0.1846	1
Flange " 3" " "	ZD32A-3	0.1846	1
10 ft. length of $2\frac{5}{8}$ " O.D. 2nd. M.P. suction pipe.	ZD34A	SHEET DA2	1
Shoulder for $2\frac{5}{8}$ " O.D. pipe	ZDA230	SHEET DA	1
" " $2\frac{5}{8}$ " " "	ZDA284	SHEET DA	1
10 ft length of $2\frac{5}{32}$ " O.D. 2nd MP. discharge pipe.	ZD36A	SHEET DA2	1
Shoulder for $2\frac{5}{32}$ " O.D. pipe	ZDA286	SHEET DA	1
Shoulder for $2\frac{5}{32}$ " O.D. pipe	ZDA232	SHEET DA	1
7 ft. length of $1\frac{11}{16}$ " O.D. injection air pipe.	ZD64A	SHEET DA2	1
Shoulder for $1\frac{11}{16}$ " O.D. pipe.	ZDA292	SHEET DA	1
" " $1\frac{11}{16}$ " " "	ZDA368	SHEET DA	1

