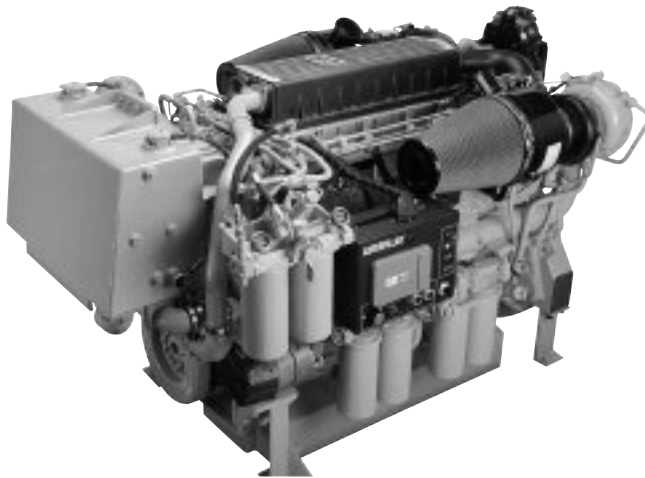




**C32 ACERT™ Keel Cooled
Marine Auxiliary/ Generator Set**

Images shown may not reflect actual engines



**C32 ACERT™ Heat Exchanger Cooled
Marine Auxiliary/ Generator Set**

SPECIFICATIONS

V-12, 4-Stroke-Cycle-Diesel

Emissions IMO/CCNR Tier 2 Compliant
Displacement 32.1 L (1959 in³)
Rated Engine Speed 1500-1800
Bore 145 mm (5.7 in.)
Stroke 162 mm (6.4 in.)
Aspiration Twin Turbocharged-Aftercooled
Governor Electronic
Cooling System Keel Cooled or
Heat Exchanger (optional)
Weight, Net Dry (approx.) 3220 kg (7100 lb)
Refill Capacity
Cooling System
Heat Exchanger (optional) 80 L (21.1 gal)
Keel Cooled (JW circuit) 120 L (31.7 gal)
Keel Cooled (Aftercooler) 40 L (10.5 gal)
Lube Oil System (refill) 138 L (36.5 gal)
Oil Change Interval 500 hr
Caterpillar Diesel Engine Oil 10W30 or 15W40
Rotation (from flywheel end) Counterclockwise
Flywheel and flywheel housing SAE No. 0
Flywheel Teeth 136

C32 ACERT Generator Set Ratings

*available Keel Cooled or Heat Exchanger
Cooled (optional):*

590 bkW (791 bhp) @ 1500 rpm
688 bkW (923 bhp) @ 1500 rpm
874 bkW (1172 bhp) @ 1500 rpm

683 bkW (916 bhp) @ 1800 rpm
781 bkW (1047 bhp) @ 1800 rpm
994 bkW (1333 bhp) @ 1800 rpm

STANDARD ENGINE EQUIPMENT

Air Inlet System

Corrosion-resistant sea water aftercooler core; air cleaner/fumes disposal (closed system) w/service indicator; turbocharger, jacket water-cooled turbine housing; turbocharger inlet, OD straight connection

Control System

Electronic governing (A4 ECU), electronic throttle position sensor; cold mode start strategy; programmable low idle; electronic diagnostics and fault logging; fuel/air ratio control; momentary start/stop logic; high temp braided engine harness with 70-pin customer connector and service tool connector

Cooling System

Oil cooler; gear-driven, centrifugal jacket water pump; gear-driven, bronze impeller, non self-priming sea water/auxiliary pump; keel cooling — separate circuit, includes expansion tank for both circuits; thermostat and housing; JW connections — ID weld flange

Exhaust System

Watercooled exhaust manifold and turbocharger; ID round flanged outlet

Fuel System

Fuel filter — RH service on port, LH service on starboard; manual fuel priming pump; fuel transfer pump

Instrumentation

Graphic unit (Marine Power Display); internal override and control switches; 24-pin customer connector; local keyswitch for power on/off; start/stop buttons, local stop button; backup ECU ready/active light; overspeed shutdown notification light; remote stop notification light

Lube System

Crankcase breather; oil filter, spin-on, RH service on port, LH service on starboard; oil filler, RH service on port, LH service on starboard; center deep sump oil pan; dipstick, RH service on port, LH service on starboard; oil pump, gear-driven

Mounting System

Front support — adjustable

Protection System

A4 ECU Electronic Monitoring System, remote stop pushbutton

General

Crankshaft vibration damper; lifting eyes; RH or LH service options; literature; side access block; single groove v-belt crankshaft pulley

OPTIONAL EQUIPMENT

Engine

Battery charger, 10 A; charging alternator, 24V 75 amp; jacket water flange kit; load sharing interface module; exhaust elbow, dual; exhaust elbow, flexible fitting (dry); muffler spark arresting; exhaust outlet flange; duplex fuel filter — RH and LH service; fuel cooler; water separator filter; duplex oil filter — RH and LH service; prelube solenoid

Cooling System

Heat exchanger — titanium plate with integral expansion tank and thermostat housing; coolant recovery system (heat exchanger model)

Monitoring System

Marine Power Display system

Starting System

Battery set — 24V, dry; jacket water heater, 120V or 240V; electric starting motor (24V) — RH and LH service; air starting motor — RH and LH service; air pressure regulator

Power Take-Offs

Hydraulic pump drives — RH rear and LH rear service

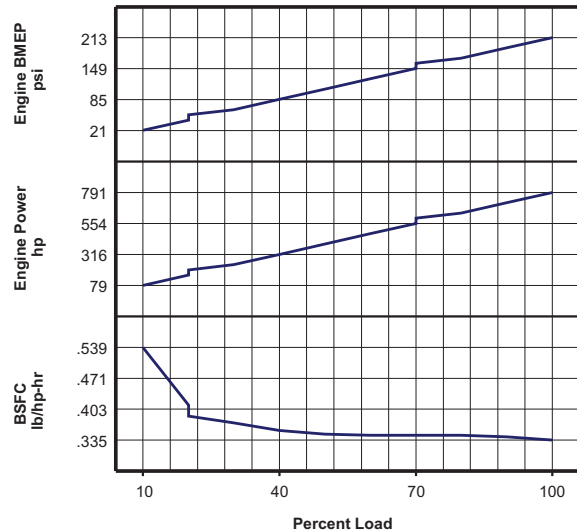
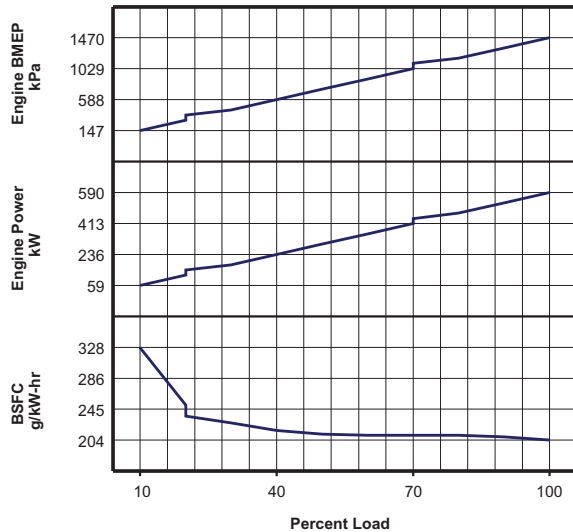
General

Wiring harness, fuel and oil spray shielding, adapter kit, damper guard/belt guard, filter cover kit, tool set

C32 ACERT Auxiliary/Generator Set Engine Performance Data

590 ekW (791 bhp) @ 1500 rpm
DM9599-01

IMO/CCNR Tier 2 Certified



Engine Power ekW	Percent Load	Engine BMEP kPa	BSFC g/kW-hr	Fuel Rate L/hr
590.0	100	1470	204	143.2
531.0	90	1323	208	131.7
472.0	80	1176	210	118.1
442.5	70	1103	210	110.7
413.0	70	1029	210	103.4
354.0	60	882	210	88.7
295.0	50	735	212	74.4
236.0	40	588	216	60.9
177.0	30	441	227	47.8
147.5	20	368	236	41.5
118.0	20	294	250	35.2
59.0	10	147	328	23.1

Engine Power hp	Percent Load	Engine BMEP psi	BSFC lb/hp-hr	Fuel Rate gph
791.2	100	213	.335	37.8
712.1	90	192	.342	34.8
633.0	80	171	.345	31.2
593.4	70	160	.345	29.2
553.8	70	149	.345	27.3
474.7	60	128	.346	23.4
395.6	50	107	.348	19.7
316.5	40	85	.356	16.1
237.4	30	64	.373	12.6
197.8	20	53	.387	11.0
158.2	20	43	.411	9.3
79.1	10	21	.539	6.1

Engine Power ekW	Intake Manifold Temp °C	Intake Manifold Pressure kPa	Intake Air Flow m³/min	Exh Manifold Temp °C	Exh Stk Temp °C	Exh Gas Flow m³/min
590.0	56.7	121.3	44.50	504.4	360.2	99.60
531.0	56.0	113.6	43.10	490.8	351.9	95.00
472.0	55.4	99.7	40.40	470.0	342.1	87.40
442.5	55.1	91.7	38.80	456.6	335.2	82.80
413.0	54.7	83.8	37.20	442.0	327.1	78.30
354.0	53.8	67.8	34.00	408.8	307.0	69.10
295.0	51.3	53.2	31.10	370.5	281.7	60.50
236.0	47.7	40.9	28.80	328.0	252.0	52.90
177.0	44.0	30.2	26.90	281.6	218.3	45.90
147.5	42.3	25.5	26.00	257.2	200.2	42.70
118.0	40.7	21.3	25.20	232.1	181.4	39.70
59.0	37.9	14.2	23.90	179.4	141.3	34.20

Engine Power hp	Intake Manifold Temp °F	Intake Manifold Pressure in-hg	Intake Air Flow cfm	Exh Manifold Temp °F	Exh Stk Temp °F	Exh Gas Flow cfm
791.2	134.1	35.9	1571.50	939.9	680.4	3517.34
712.1	132.8	33.6	1522.06	915.4	665.4	3354.90
633.0	131.7	29.5	1426.71	878.0	647.8	3086.51
593.4	131.2	27.2	1370.21	853.9	635.4	2924.06
553.8	130.5	24.8	1313.71	827.6	620.8	2765.14
474.7	128.8	20.1	1200.70	767.8	584.6	2440.25
395.6	124.3	15.8	1098.29	698.9	539.1	2136.54
316.5	117.9	12.1	1017.06	622.4	485.6	1868.15
237.4	111.2	8.9	949.97	538.9	424.9	1620.95
197.8	108.1	7.6	918.18	495.0	392.4	1507.94
158.2	105.3	6.3	889.93	449.8	358.5	1401.99
79.1	100.2	4.2	844.02	354.9	286.3	1207.76

Heat Rejection Data

Engine Power ekW	Percent Load	Rej to JW kW	Rej to Atmos kW	Rej to Exh kW	From Oil Clr kW
590.0	100	381.0	70.2	427.0	76.5
531.0	90	355.0	65.4	400.0	70.4
472.0	80	324.0	59.2	361.0	63.0
442.5	70	307.0	55.9	338.0	59.1
413.0	70	291.0	52.5	314.0	55.1
354.0	60	257.0	46.2	265.0	47.3
295.0	50	225.0	40.5	217.0	39.6
236.0	40	194.0	35.1	172.0	32.4
177.0	30	163.0	29.8	132.0	25.4
147.5	20	147.0	26.7	114.0	22.0
118.0	20	131.0	23.5	98.0	18.7
59.0	10	117.0	20.8	46.0	12.3

Heat Rejection Data

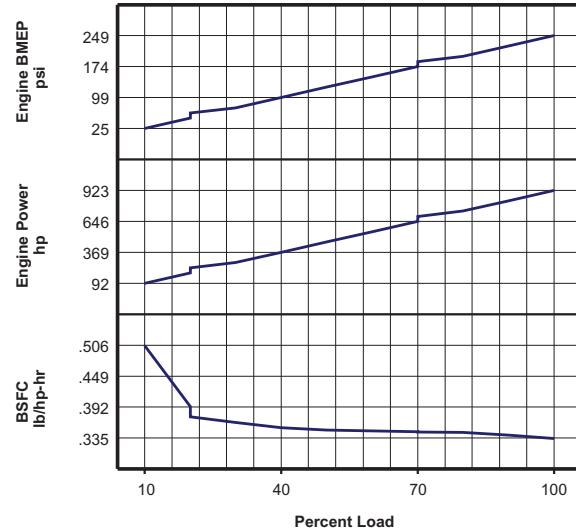
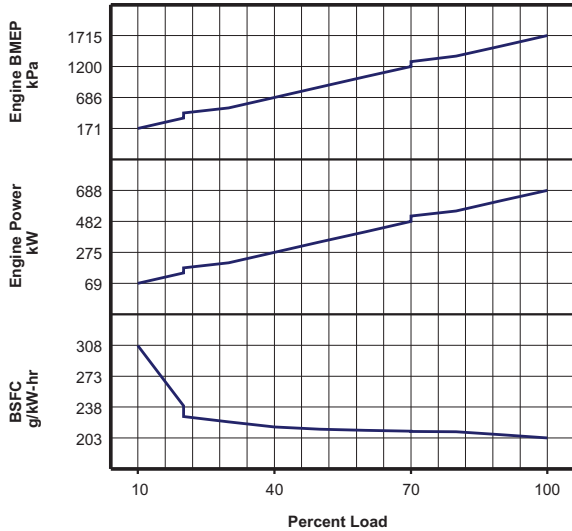
Engine Power hp	Percent Load	Rej to JW Btu/min	Rej to Atmos Btu/min	Rej to Exh Btu/min	From Oil Clr Btu/min
791.2	100	21667.4	3992.3	24283.4	4350.5
712.1	90	20188.8	3719.3	22748.0	4003.6
633.0	80	18425.8	3366.7	20530.0	3582.8
593.4	70	17459.1	3179.0	19222.0	3361.0
553.8	70	16549.1	2985.7	17857.1	3133.5
474.7	60	14615.6	2627.4	15070.5	2689.9
395.6	50	12795.7	2303.2	12340.8	2252.0
316.5	40	11032.8	1996.1	9781.6	1842.6
237.4	30	9269.8	1694.7	7506.8	1444.5
197.8	20	8359.9	1518.4	6483.2	1251.1
158.2	20	7450.0	1336.4	5573.2	1063.5
79.1	10	6653.8	1182.9	2616.0	699.5

For most current information, please refer to TMI.

C32 ACERT Auxiliary/Generator Set Engine Performance Data

688 ekW (923 bhp) @ 1500 rpm
DM9598-01

IMO/CCNR Tier 2 Certified



Engine Power ekW	Percent Load	Engine BMEP kPa	BSFC g/kW-hr	Fuel Rate L/hr
688.0	100	1715	203	166.6
619.2	90	1543	207	152.6
550.4	80	1372	210	137.8
516.0	70	1286	210	129.4
481.6	70	1200	211	120.9
412.8	60	1029	211	104.0
344.0	50	857	213	87.2
275.2	40	686	215	70.7
206.4	30	514	221	54.4
172.0	20	429	227	46.6
137.6	20	343	239	39.2
68.8	10	171	308	25.2

Engine Power hp	Percent Load	Engine BMEP psi	BSFC lb/hp-hr	Fuel Rate gph
922.6	100	249	.334	44.0
830.4	90	224	.340	40.3
738.1	80	199	.345	36.4
692.0	70	187	.346	34.2
645.8	70	174	.346	31.9
553.6	60	149	.348	27.5
461.3	50	124	.350	23.0
369.0	40	99	.354	18.7
276.8	30	75	.363	14.4
230.7	20	62	.374	12.3
184.5	20	50	.393	10.4
92.3	10	25	.506	6.7

Engine Power ekW	Intake Manifold Temp °C	Intake Manifold Pressure kPa	Intake Air Flow m³/min	Exh Manifold Temp °C	Exh Stk Temp °C	Exh Gas Flow m³/min
688.0	61.0	156.8	52.20	520.6	360.7	116.80
619.2	59.9	145.0	50.00	506.2	353.8	110.50
550.4	58.8	131.0	47.30	490.5	346.4	103.20
516.0	58.2	120.9	45.30	479.5	341.5	97.80
481.6	57.5	110.8	43.30	467.2	335.8	92.50
412.8	56.3	90.5	39.20	438.1	321.9	81.80
344.0	55.4	70.8	35.20	401.2	302.5	71.20
275.2	54.9	52.8	31.50	357.2	276.2	60.80
206.4	54.4	36.4	28.00	307.9	244.8	50.70
172.0	54.0	29.5	26.60	281.7	227.3	46.30
137.6	53.5	24.2	25.60	254.8	208.9	42.70
68.8	52.2	16.3	24.10	197.8	168.6	36.70

Engine Power hp	Intake Manifold Temp °F	Intake Manifold Pressure in-hg	Intake Air Flow cfm	Exh Manifold Temp °F	Exh Stk Temp °F	Exh Gas Flow cfm
922.6	141.8	46.4	1843.43	969.1	681.3	4124.76
830.4	139.8	42.9	1765.74	943.2	668.8	3902.27
738.1	137.8	38.8	1670.39	914.9	655.5	3644.48
692.0	136.8	35.8	1599.76	895.1	646.7	3453.78
645.8	135.5	32.8	1529.13	873.0	636.4	3266.61
553.6	133.3	26.8	1384.34	820.6	611.4	2888.74
461.3	131.7	21.0	1243.08	754.2	576.5	2514.41
369.0	130.8	15.6	1112.41	675.0	529.2	2147.13
276.8	129.9	10.8	988.81	586.2	472.6	1790.46
230.7	129.2	8.7	939.37	539.1	441.1	1635.07
184.5	128.3	7.2	904.06	490.6	408.0	1507.94
92.3	126.0	4.8	851.08	388.0	335.5	1296.05

Heat Rejection Data

Engine Power ekW	Percent Load	Rej to JW kW	Rej to Atmos kW	Rej to Exh kW	From Oil Clr kW
688.0	100	442.0	73.7	488.0	89.0
619.2	90	405.0	71.6	455.0	81.5
550.4	80	368.0	68.0	417.0	73.5
516.0	70	349.0	64.2	392.0	69.0
481.6	70	330.0	60.4	367.0	64.5
412.8	60	292.0	52.8	315.0	55.4
344.0	50	254.0	45.6	262.0	46.4
275.2	40	216.0	39.0	208.0	37.6
206.4	30	179.0	32.6	155.0	28.9
172.0	20	160.0	29.2	132.0	24.8
137.6	20	142.0	25.6	112.0	20.9
68.8	10	112.0	19.7	71.0	13.4

Heat Rejection Data

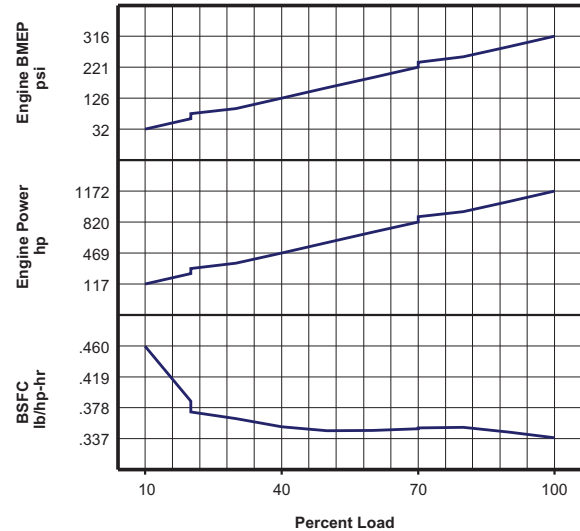
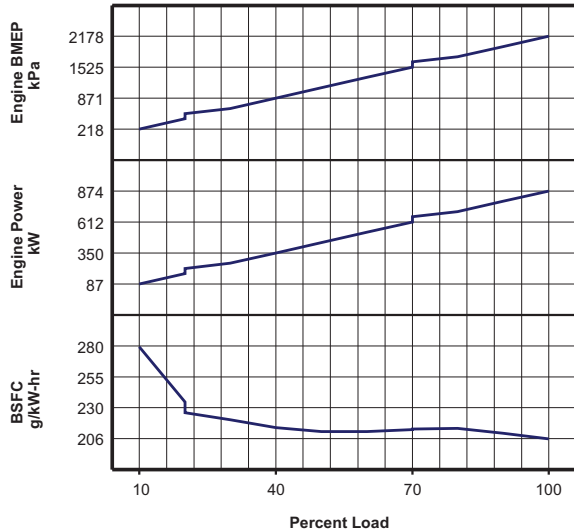
Engine Power hp	Percent Load	Rej to JW Btu/min	Rej to Atmos Btu/min	Rej to Exh Btu/min	From Oil Clr Btu/min
922.6	100	25136.5	4191.3	27752.5	5061.4
830.4	90	23032.3	4071.9	25875.8	4634.9
738.1	80	20928.1	3867.2	23714.7	4179.9
692.0	70	19847.6	3651.0	22293.0	3924.0
645.8	70	18767.1	3434.9	20871.3	3668.1
553.6	60	16606.0	3002.7	17914.0	3150.6
461.3	50	14445.0	2593.3	14899.9	2638.8
369.0	40	12283.9	2217.9	11828.9	2138.3
276.8	30	10179.7	1854.0	8814.8	1643.5
230.7	20	9099.2	1660.6	7506.8	1410.4
184.5	20	8075.5	1455.9	6369.4	1188.6
92.3	10	6369.4	1120.3	4037.8	762.1

For most current information, please refer to TMI.

C32 ACERT Auxiliary/Generator Set Engine Performance Data

874 kW (1172 bhp) @ 1500 rpm
DM9597-01

IMO/CCNR Tier 2 Certified



Engine Power kW	Percent Load	Engine BMEP kPa	BSFC g/kW-hr	Fuel Rate L/hr
874.0	100	2178	206	214.2
786.6	90	1960	210	197.0
699.2	80	1742	214	178.4
655.5	70	1634	214	166.8
611.8	60	1525	213	155.3
524.4	50	1307	212	132.2
437.0	40	1089	211	110.1
349.6	30	871	215	89.4
262.2	20	653	221	69.1
174.8	10	436	235	49.0
87.4	10	218	280	29.1

Engine Power hp	Percent Load	Engine BMEP psi	BSFC lb/hp-hr	Fuel Rate gph
1172.1	100	316	.338	56.6
1054.8	90	284	.345	52.0
937.6	80	253	.352	47.1
879.0	70	237	.351	44.1
820.4	60	221	.350	41.0
703.2	50	190	.348	34.9
586.0	40	158	.348	29.1
468.8	30	126	.353	23.6
351.6	20	95	.363	18.3
234.4	10	63	.387	12.9
117.2	10	32	.460	7.7

Engine Power kW	Intake Manifold Temp °C	Intake Manifold Pressure kPa	Intake Air Flow m³/min	Exh Manifold Temp °C	Exh Stk Temp °C	Exh Gas Flow m³/min
874.0	61.9	147.4	50.20	659.0	487.5	136.30
786.6	61.1	135.3	47.90	647.2	481.9	129.00
699.2	60.1	120.5	45.10	630.2	472.8	119.60
655.5	59.2	108.9	42.60	615.3	464.7	111.70
611.8	58.3	97.3	40.20	598.3	454.9	103.90
524.4	56.6	74.1	35.40	557.8	430.1	88.30
437.0	55.2	54.2	31.20	510.9	399.1	74.40
349.6	54.4	39.6	28.20	457.2	361.0	63.20
262.2	53.5	27.4	25.70	394.2	314.7	53.20
174.8	52.6	22.0	24.70	357.9	287.7	48.50
87.4	47.1	8.4	22.30	225.6	189.6	35.80

Engine Power hp	Intake Manifold Temp °F	Intake Manifold Pressure in-hg	Intake Air Flow cfm	Exh Manifold Temp °F	Exh Stk Temp °F	Exh Gas Flow cfm
1172.1	143.4	43.7	1772.80	1218.2	909.5	4813.39
1054.8	142.0	40.1	1691.57	1197.0	899.4	4555.60
937.6	140.2	35.7	1592.69	1166.4	883.0	4223.64
879.0	138.6	32.2	1504.41	1139.5	868.5	3944.65
820.4	136.9	28.8	1419.65	1108.9	850.8	3669.20
703.2	133.9	21.9	1250.14	1036.0	806.2	3118.29
586.0	131.4	16.1	1101.82	951.6	750.4	2627.41
468.8	129.9	11.7	995.87	855.0	681.8	2231.89
351.6	128.3	8.1	907.59	741.6	598.5	1878.74
234.4	126.7	6.5	872.27	676.2	549.9	1712.76
117.2	116.8	2.5	787.52	438.1	373.3	1264.27

Heat Rejection Data

Engine Power kW	Percent Load	Rej to JW kW	Rej to Atmos kW	Rej to Exh kW	From Oil Clr kW
874.0	100	556.0	102.0	717.0	117.0
786.6	90	523.0	92.0	662.0	107.0
699.2	80	486.0	84.0	597.0	97.0
655.5	70	461.0	84.0	549.0	90.0
611.8	60	433.0	80.0	506.0	84.0
524.4	50	376.0	71.0	422.0	71.0
437.0	40	322.0	59.0	346.0	59.0
349.6	30	273.0	48.0	275.0	48.0
262.2	20	225.0	39.0	209.0	37.0
174.8	10	201.0	34.0	175.0	31.0
87.4	10	144.0	22.0	60.0	16.0

Heat Rejection Data

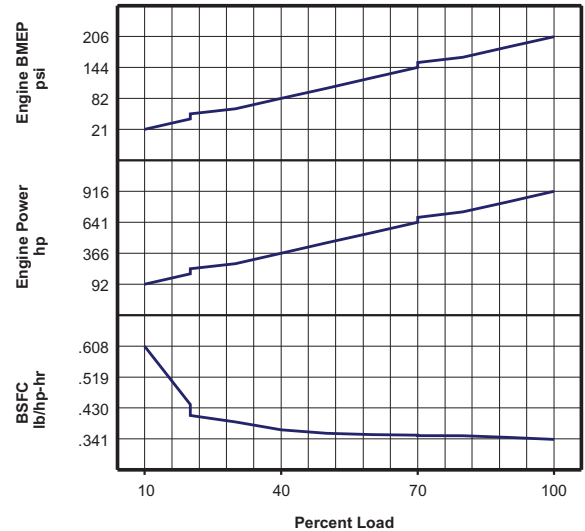
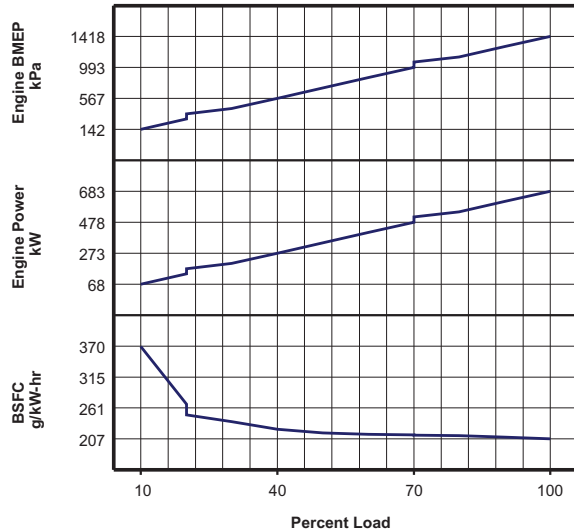
Engine Power hp	Percent Load	Rej to JW Btu/min	Rej to Atmos Btu/min	Rej to Exh Btu/min	From Oil Clr Btu/min
1172.1	100	31619.7	5800.7	40775.7	6653.8
1054.8	90	29743.0	5232.0	37647.9	6085.1
937.6	80	27638.8	4777.1	33951.3	5516.4
879.0	70	26217.0	4777.1	31221.6	5118.3
820.4	60	24624.7	4549.6	28776.2	4777.1
703.2	50	21383.1	4037.8	23999.1	4037.8
586.0	40	18312.1	3355.3	19677.0	3355.3
468.8	30	15525.5	2729.8	15639.2	2729.8
351.6	20	12795.7	2217.9	11885.8	2104.2
234.4	10	11430.9	1933.6	9952.2	1763.0
117.2	10	8189.3	1251.1	3412.2	909.9

For most current information, please refer to TMI.

C32 ACERT Auxiliary/Generator Set Engine Performance Data

683 ekW (916 bhp) @ 1800 rpm
DM9596-01

IMO/CCNR Tier 2 Certified



Engine Power ekW	Percent Load	Engine BMEP kPa	BSFC g/kW-hr	Fuel Rate L/hr
683.0	100	1418	207	168.2
614.7	90	1277	210	153.6
546.4	80	1135	213	138.6
512.2	70	1064	213	130.2
478.1	70	993	214	121.7
409.8	60	851	215	104.8
341.5	50	709	217	88.3
273.2	40	567	223	72.7
204.9	30	426	237	57.8
170.8	20	355	248	50.6
136.6	20	284	268	43.6
68.3	10	142	370	30.1

Engine Power hp	Percent Load	Engine BMEP psi	BSFC lb/hp-hr	Fuel Rate gph
915.9	100	206	.340	44.4
824.3	90	185	.345	40.6
732.7	80	165	.350	36.6
686.9	70	154	.351	34.4
641.1	70	144	.351	32.1
549.6	60	123	.353	27.7
458.0	50	103	.357	23.3
366.4	40	82	.367	19.2
274.8	30	62	.389	15.3
229.0	20	51	.408	13.4
183.2	20	41	.440	11.5
91.6	10	21	.608	8.0

Engine Power ekW	Intake Manifold Temp °C	Intake Manifold Pressure kPa	Intake Air Flow m³/min	Exh Manifold Temp °C	Exh Stk Temp °C	Exh Gas Flow m³/min
683.0	62.0	155.5	61.10	478.2	321.9	127.80
614.7	60.9	143.7	58.40	462.7	314.9	120.40
546.4	59.9	131.3	55.60	442.8	304.3	112.50
512.2	59.2	122.1	53.50	431.2	298.5	107.10
478.1	58.6	112.9	51.50	418.7	292.1	101.80
409.8	57.4	94.5	47.30	390.8	277.5	91.00
341.5	56.3	76.5	43.20	358.7	260.3	80.40
273.2	55.4	60.1	39.30	323.5	240.3	70.30
204.9	54.5	45.2	35.60	286.1	217.6	60.70
170.8	54.2	38.7	34.00	266.7	205.3	56.40
136.6	53.8	33.3	32.70	247.2	192.2	52.60
68.3	53.1	24.8	30.50	206.8	164.1	46.00

Engine Power hp	Intake Manifold Temp °F	Intake Manifold Pressure in-hg	Intake Air Flow cfm	Exh Manifold Temp °F	Exh Stk Temp °F	Exh Gas Flow cfm
915.9	143.6	46.0	2157.73	892.8	611.4	4513.22
824.3	141.6	42.6	2062.38	864.9	598.8	4251.89
732.7	139.8	38.9	1963.50	829.0	579.7	3972.90
686.9	138.6	36.2	1889.34	808.2	569.3	3782.20
641.1	137.5	33.4	1818.71	785.7	557.8	3595.04
549.6	135.3	28.0	1670.39	735.4	531.5	3213.64
458.0	133.3	22.7	1525.60	677.7	500.5	2839.30
366.4	131.7	17.8	1387.87	614.3	464.5	2482.62
274.8	130.1	13.4	1257.20	547.0	423.7	2143.60
229.0	129.6	11.5	1200.70	512.1	401.5	1991.75
183.2	128.8	9.9	1154.79	477.0	378.0	1857.55
91.6	127.6	7.3	1077.10	404.2	327.4	1624.48

Heat Rejection Data

Engine Power ekW	Percent Load	Rej to JW kW	Rej to Atmos kW	Rej to Exh kW	From Oil Ctr kW
683.0	100	431.0	74.4	503.0	90.0
614.7	90	397.0	68.8	467.0	82.1
546.4	80	362.0	63.3	428.0	74.1
512.2	70	343.0	60.2	403.0	69.6
478.1	70	324.0	57.2	377.0	65.0
409.8	60	295.0	51.1	315.0	56.0
341.5	50	287.0	45.3	234.0	47.1
273.2	40	279.0	39.7	161.0	38.8
204.9	30	271.0	34.4	93.0	30.8
170.8	20	260.0	31.7	68.0	27.0
136.6	20	236.0	29.0	56.0	23.2
68.3	10	190.0	24.4	37.0	16.0

Heat Rejection Data

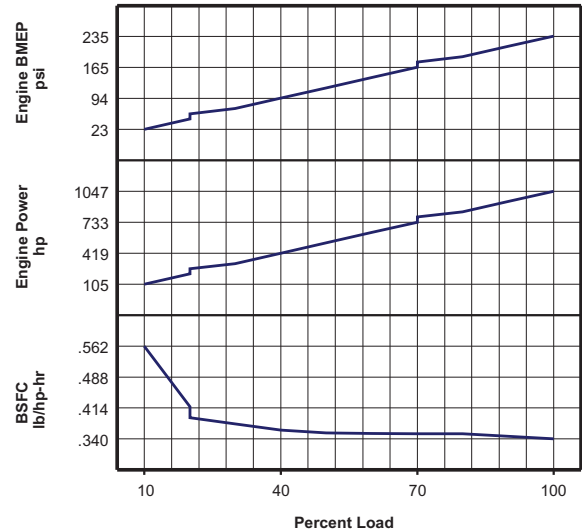
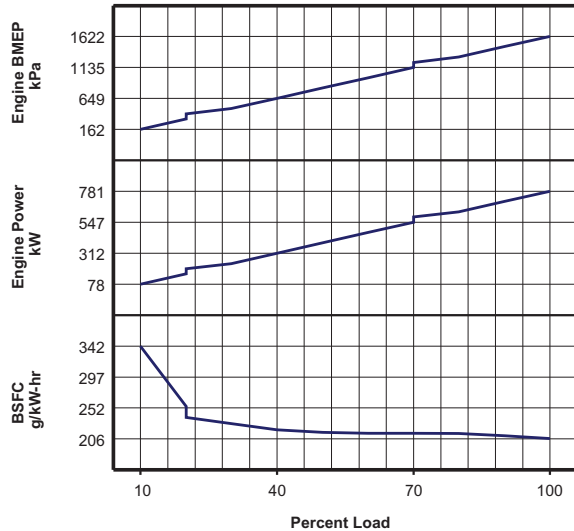
Engine Power hp	Percent Load	Rej to JW Btu/min	Rej to Atmos Btu/min	Rej to Exh Btu/min	From Oil Ctr Btu/min
915.9	100	24510.9	4231.1	28605.6	5118.3
824.3	90	22577.3	3912.6	26558.2	4669.0
732.7	80	20586.9	3599.9	24340.3	4214.1
686.9	70	19506.4	3423.6	22918.6	3958.1
641.1	70	18425.8	3253.0	21440.0	3696.5
549.6	60	16776.6	2906.1	17914.0	3184.7
458.0	50	16321.7	2576.2	13307.6	2678.6
366.4	40	15866.7	2257.7	9156.1	2206.6
274.8	30	15411.7	1956.3	5288.9	1751.6
229.0	20	14786.2	1802.8	3867.2	1535.5
183.2	20	13421.3	1649.2	3184.7	1319.4
91.6	10	10805.3	1387.6	2104.2	909.9

For most current information, please refer to TMI.

C32 ACERT Auxiliary/Generator Set Engine Performance Data

781 ekW (1047 bhp) @ 1800 rpm
DM9595-01

IMO/CCNR Tier 2 Certified



Engine Power ekW	Percent Load	Engine BMEP kPa	BSFC g/kW-hr	Fuel Rate L/hr
781.0	100	1622	207	192.2
702.9	90	1460	211	176.4
624.8	80	1298	214	159.4
585.8	70	1216	214	149.5
546.7	70	1135	214	139.6
468.6	60	973	215	119.8
390.5	50	811	216	100.3
312.4	40	649	219	81.7
234.3	30	487	228	63.8
195.3	20	405	238	55.3
156.2	20	324	253	47.2
78.1	10	162	342	31.8

Engine Power hp	Percent Load	Engine BMEP psi	BSFC lb/hp-hr	Fuel Rate gph
1047.3	100	235	.339	50.8
942.6	90	212	.346	46.6
837.9	80	188	.352	42.1
785.6	70	176	.352	39.5
733.1	70	165	.352	36.9
628.4	60	141	.353	31.6
523.7	50	118	.354	26.5
418.9	40	94	.361	21.6
314.2	30	71	.375	16.9
261.9	20	59	.390	14.6
209.5	20	47	.417	12.5
104.7	10	23	.562	8.4

Engine Power ekW	Intake Manifold Temp °C	Intake Manifold Pressure kPa	Intake Air Flow m³/min	Exh Manifold Temp °C	Exh Stk Temp °C	Exh Gas Flow m³/min
781.0	64.6	180.6	66.90	501.2	330.0	142.00
702.9	63.6	171.5	65.20	483.5	319.4	135.70
624.8	62.2	159.1	62.70	463.6	308.3	127.70
585.8	61.2	148.7	60.40	450.3	301.8	121.40
546.7	60.2	138.2	58.10	436.1	294.7	115.20
468.6	58.2	117.3	53.20	405.0	279.3	102.70
390.5	56.3	96.2	48.20	370.4	262.0	90.10
312.4	54.9	75.2	43.10	333.2	242.3	77.70
234.3	53.6	54.1	38.10	293.8	220.1	65.30
195.3	53.1	45.1	35.90	273.4	207.8	59.90
156.2	52.6	38.2	34.20	252.6	194.5	55.40
78.1	51.7	27.0	31.70	209.6	165.7	47.90

Engine Power hp	Intake Manifold Temp °F	Intake Manifold Pressure in-hg	Intake Air Flow cfm	Exh Manifold Temp °F	Exh Stk Temp °F	Exh Gas Flow cfm
1047.3	148.3	53.5	2362.55	934.2	626.0	5014.69
942.6	146.5	50.8	2302.52	902.3	606.9	4792.21
837.9	144.0	47.1	2214.23	866.5	586.9	4509.69
785.6	142.2	44.0	2133.01	842.5	575.2	4287.21
733.1	140.4	40.9	2051.78	817.0	562.5	4068.25
628.4	136.8	34.7	1878.74	761.0	534.7	3626.82
523.7	133.3	28.5	1702.17	698.7	503.6	3181.85
418.9	130.8	22.3	1522.06	631.8	468.1	2743.95
314.2	128.5	16.0	1345.49	560.8	428.2	2306.05
261.9	127.6	13.4	1267.80	524.1	406.0	2115.35
209.5	126.7	11.3	1207.76	486.7	382.1	1956.43
104.7	125.1	8.0	1119.48	409.3	330.3	1691.57

Heat Rejection Data

Engine Power ekW	Percent Load	Rej to JW kW	Rej to Atmos kW	Rej to Exh kW	From Oil Clr kW
781.0	100	486.0	84.0	566.0	103.0
702.9	90	449.0	77.6	528.0	94.0
624.8	80	410.0	70.9	485.0	85.0
585.8	70	387.0	67.2	455.0	80.0
546.7	70	364.0	63.6	425.0	74.0
468.6	60	319.0	56.4	364.0	64.0
390.5	50	293.0	49.4	286.0	53.0
312.4	40	283.0	42.8	199.0	43.0
234.3	30	274.0	36.5	116.0	34.0
195.3	20	270.0	33.5	77.0	29.0
156.2	20	248.0	30.4	58.0	25.0
78.1	10	188.0	24.2	45.0	17.0

Heat Rejection Data

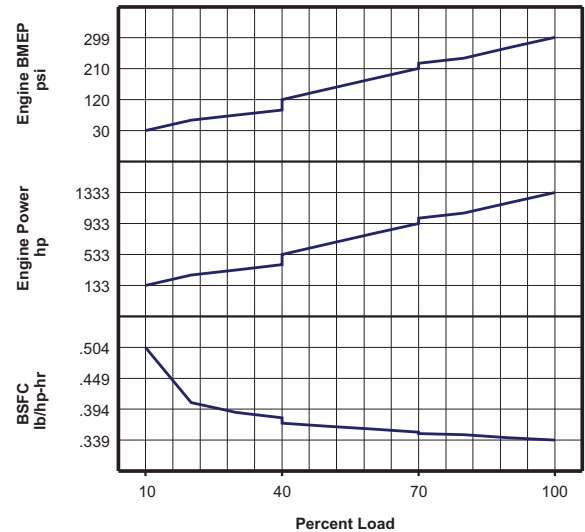
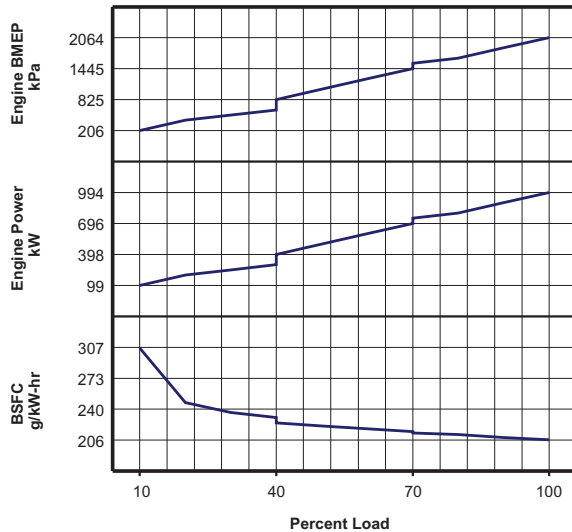
Engine Power hp	Percent Load	Rej to JW Btu/min	Rej to Atmos Btu/min	Rej to Exh Btu/min	From Oil Clr Btu/min
1047.3	100	27638.8	4777.1	32188.4	5857.6
942.6	90	25534.6	4413.1	30027.3	5345.8
837.9	80	23316.7	4032.1	27581.9	4833.9
785.6	70	22008.6	3821.7	25875.8	4549.6
733.1	70	20700.6	3616.9	24169.7	4208.4
628.4	60	18141.5	3207.5	20700.6	3639.7
523.7	50	16662.9	2809.4	16264.8	3014.1
418.9	40	16094.2	2434.0	11317.1	2445.4
314.2	30	15582.4	2075.8	6596.9	1933.6
261.9	20	15354.9	1905.1	4379.0	1649.2
209.5	20	14103.7	1728.8	3298.5	1421.7
104.7	10	10691.5	1376.3	2559.1	966.8

For most current information, please refer to TMI.

C32 ACERT Auxiliary/Generator Set Engine Performance Data

994 ekW (1333 bhp) @ 1800 rpm
DM9594-01

IMO/CCNR Tier 2 Certified



Engine Power ekW	Percent Load	Engine BMEP kPa	BSFC g/kW-hr	Fuel Rate L/hr
994.0	100	2064	206	244.1
894.6	90	1858	209	222.5
795.2	80	1651	212	200.7
745.5	70	1548	213	189.5
695.8	60	1445	215	178.2
596.4	50	1239	218	155.1
497.0	40	1032	221	131.0
397.6	30	826	225	106.4
298.2	20	619	230	81.8
248.5	10	516	236	69.9
198.8	10	413	247	58.5
99.4	10	206	307	36.3

Engine Power hp	Percent Load	Engine BMEP psi	BSFC lb/hp-hr	Fuel Rate gph
1333.0	100	299	.339	64.5
1199.7	90	269	.343	58.8
1066.4	80	239	.348	53.0
999.7	70	225	.351	50.1
933.1	60	210	.353	47.1
799.8	50	180	.359	41.0
666.5	40	150	.363	34.6
533.2	30	120	.369	28.1
399.9	20	90	.378	21.6
333.2	10	75	.388	18.5
266.6	10	60	.406	15.5
133.3	10	30	.504	9.6

Engine Power ekW	Intake Manifold Temp °C	Intake Manifold Pressure kPa	Intake Air Flow m³/min	Exh Manifold Temp °C	Exh Stk Temp °C	Exh Gas Flow m³/min
994.0	66.0	194.6	71.50	584.4	398.1	169.80
894.6	64.3	176.4	67.40	569.0	393.8	158.90
795.2	62.7	157.1	62.90	553.4	389.4	147.30
745.5	62.0	145.6	60.30	544.3	386.5	140.60
695.8	61.3	134.1	57.60	534.2	383.0	133.60
596.4	59.9	111.2	52.10	510.7	373.8	119.00
497.0	58.5	88.3	46.50	480.4	359.2	103.20
397.6	57.0	65.7	40.90	438.8	334.4	87.10
298.2	55.4	43.4	35.40	386.6	300.7	71.00
248.5	54.5	33.7	33.00	355.6	279.4	63.60
198.8	53.4	26.1	31.20	320.3	254.5	57.30
99.4	50.9	13.7	28.50	240.0	196.1	46.20

Engine Power hp	Intake Manifold Temp °F	Intake Manifold Pressure in-hg	Intake Air Flow cfm	Exh Manifold Temp °F	Exh Stk Temp °F	Exh Gas Flow cfm
1333.0	150.8	57.6	2525.00	1083.9	748.6	5996.44
1199.7	147.7	52.2	2380.21	1056.2	740.8	5611.51
1066.4	144.9	46.5	2221.30	1028.1	732.9	5201.86
999.7	143.6	43.1	2129.48	1011.7	727.7	4965.25
933.1	142.3	39.7	2034.13	993.6	721.4	4718.04
799.8	139.8	32.9	1839.90	951.3	704.8	4202.45
666.5	137.3	26.1	1642.13	896.7	678.6	3644.48
533.2	134.6	19.5	1444.37	821.8	633.9	3075.91
399.9	131.7	12.9	1250.14	727.9	573.3	2507.34
333.2	130.1	10.0	1165.39	672.1	534.9	2246.02
266.6	128.1	7.7	1101.82	608.5	490.1	2023.53
133.3	123.6	4.1	1006.47	464.0	385.0	1631.54

Heat Rejection Data

Engine Power ekW	Percent Load	Rej to JW kW	Rej to Atmos kW	Rej to Exh kW	From Oil Clr kW
994.0	100	596.0	104.0	765.0	131.0
894.6	90	547.0	94.0	708.0	119.0
795.2	80	499.0	87.0	648.0	107.0
745.5	70	475.0	84.0	617.0	101.0
695.8	60	450.0	81.0	585.0	95.0
596.4	50	400.0	74.0	515.0	83.0
497.0	40	348.0	67.0	438.0	70.0
397.6	30	295.0	58.0	355.0	57.0
298.2	20	241.0	49.0	269.0	43.0
248.5	10	215.0	44.0	228.0	37.0
198.8	10	191.0	38.0	190.0	31.0
99.4	10	157.0	30.0	102.0	19.0

Heat Rejection Data

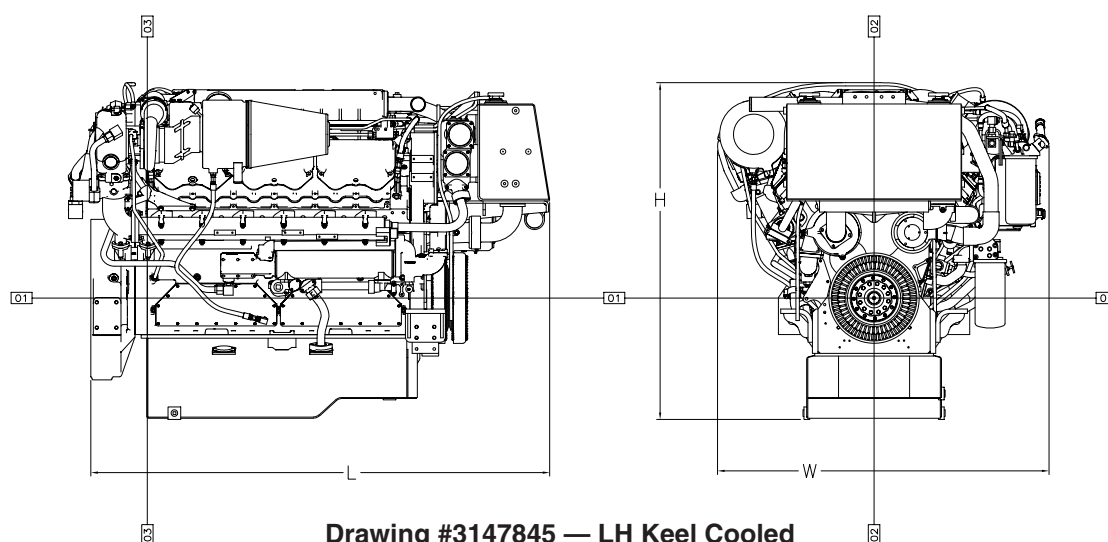
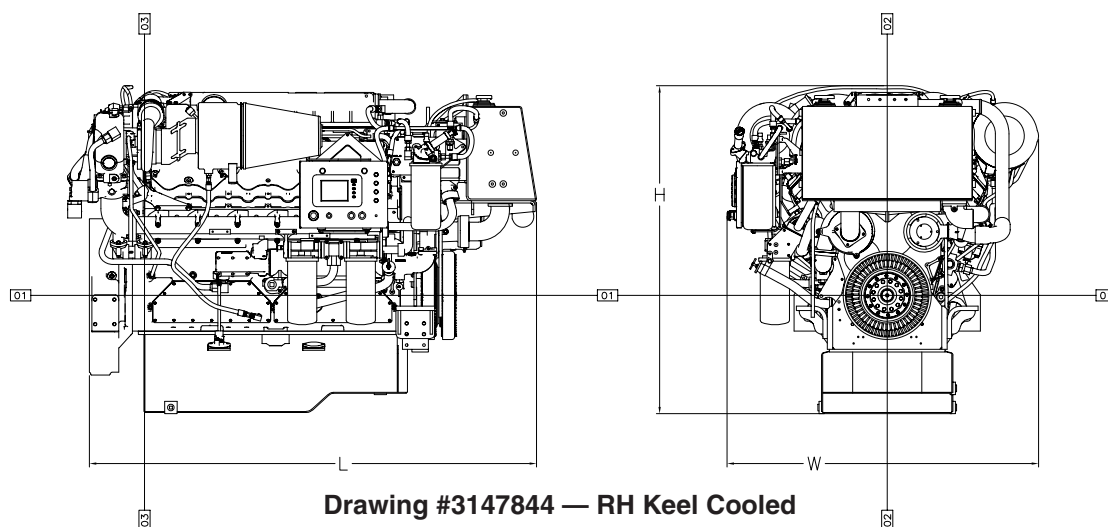
Engine Power hp	Percent Load	Rej to JW Btu/min	Rej to Atmos Btu/min	Rej to Exh Btu/min	From Oil Clr Btu/min
1333.0	100	33894.5	5914.5	43505.5	7450.0
1199.7	90	31107.8	5345.8	40263.9	6767.5
1066.4	80	28378.1	4947.7	36851.7	6085.1
999.7	70	27013.2	4777.1	35088.7	5743.9
933.1	60	25591.5	4606.5	33268.9	5402.6
799.8	50	22748.0	4208.4	29288.0	4720.2
666.5	40	19790.7	3810.3	24909.0	3980.9
533.2	30	16776.6	3298.5	20188.8	3241.6
399.9	20	13705.6	2786.6	15298.0	2445.4
333.2	10	12227.0	2502.3	12966.3	2104.2
266.6	10	10862.2	2161.1	10805.3	1763.0
133.3	10	8928.6	1706.1	5800.7	1080.5

For most current information, please refer to TMI.

ENGINE DIMENSIONS

C32 ACERT Engine Dimensions (approx.)		
Length to Flywheel Housing (KC)	2072.6 mm	81.6 in.
Length to Flywheel Housing (Hex)	N/A*	N/A*
Width (KC)	1442.7-1496.1 mm	56.8-58.9 in.
Height (KC)	1521.5 mm	59.9 in.
Weight (dry) (KC)	3220 kg	7100 lb

*Not available at time of print



Hex drawings not available at time of print. Refer to drawing number 247-0782.
For most current drawings, please refer to TMI web.

Drawing #	Cooling
314-7844 (RH)	KC
314-7845 (LH)	KC
247-0782	HeX



RATING DEFINITIONS AND CONDITIONS

Power at declared engine speed is in accordance with ISO3046-1:2002E. Caterpillar maintains ISO9001:1994/QS-9000 approved engine test facilities to assure accurate calibration of test equipment. Electronically controlled engines are set at the factory at the advertised power corrected to standard ambient conditions. The published fuel consumption rates are in accordance with ISO3046-1:2002E.

Fuel rates are based on fuel oil of 125° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal). Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers' engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar's control.

Power produced at the flywheel will be within standard tolerances up to 49°C (120°F) combustion air temperature measured at the air cleaner inlet, and fuel temperature up to 52°C (125°F) measured at the fuel filter base. Power rated in accordance with NMMA procedure as crankshaft power. Reduce crankshaft power by 3% for propeller shaft power.

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