



SUMMARY OF EXHAUST SYSTEM CONFIGURATION:

Engine Selection: User Input Manufacturer: MAN
Application: Gen-set Model: D2842LE203
Brake horsepower: 0.0 Electrical power: 718.0
Allowable backpressure: 24.0 Design backpressure: 0.0
BEMP: 0.0 RPM: 1800 Exhaust Temp: 1004.0
Exhaust Flow: 4633.0 Outlet dia: 5.0 # of outlets: 2
Outlet Configuration:

Silex Silencer Selections:

- 1) HPSCU-10 扁圓形超薄靜音型10"消音器
- 2) GENYC-10-ST Combo 組合型吸收式10"消音器

Piping System Details:

- 1) Wye Fitting: [dia=5.0", dia2=10.0"] Y型接管, 入口5"出口10"
- 2) Elbow: [dia=8.0", angle=90 deg]
- 3) Elbow: [dia=8.0", angle=90 deg] 8" 90°彎頭3只
- 4) Elbow: [dia=8.0", angle=90 deg]
- 5) Piping Segment: [dia=8.0", len=32.8'] 8"管, 長度10M

SYSTEM ACOUSTICS

Octave Band and dBA Engine Sound Pressure Levels
[dB] @ 3.0' & 90 deg to exhaust axis:

Frequency [Hz]	63	125	250	500	1000	2000	4000	8000	dBA
User Input:	119	125	121	112	108	101	91	83	<u>116</u> 引擎排氣原始噪音

Octave Band Silencer Insertion Loss Data:

Frequency [Hz]	63	125	250	500	1000	2000	4000	8000
HPSCU-10 :	15	25	35	33	28	25	24	25
GENYC-10-ST Combo:	13	28	36	37	38	34	30	20

Overall Silencer System Noise Reduction: 51 dBA 消音器可減去噪音

Octave Band Piping System Noise Reduction Data [dB]:

Frequency [Hz]	63	125	250	500	1000	2000	4000	8000
Wye Fitting:	0	0	0	0	0	0	0	0
Elbow:	0	0	0	0	1	2	3	3
Elbow:	0	0	0	0	1	2	3	3
Elbow:	0	0	0	0	1	2	3	3
Piping Segment:	8	8	8	8	8	8	8	8

Overall Piping System Noise Reduction: 8 dBA 排氣管路可減去噪音

Octave Band and dBA Sound Data at Receiver [dB]:

Distance to acoustical receiver: 3.0'
Angle between receiver and axis of exhaust outlet: 90.0 degrees

Frequency [Hz]	63	125	250	500	1000	2000	4000	8000
Distance Attenuation:	0	0	0	0	0	0	0	0
Air Absorption:	0	0	0	0	0	0	0	0
Directivity:	0	0	0	0	0	0	0	0

Overall Noise Reduction between Outlet and Receiver: 0 dBA

Sound Pressure Levels at Receiver [dB]:

Frequency [Hz]	63	125	250	500	1000	2000	4000	8000	dBa
Receiver Level:	83	64	42	34	31	28	20	21	<u>57</u> 排氣尾管1M處噪音量

SYSTEM PRESSURE DATA:

Pressure Data Through Silencers

	Flow Rate [CFM]	Face Velocity [FPM]	Presssure Drop [inches WG]
HPSCU-10 :	4633.0	8494.5	8.9
GENYC-10-ST Combo:	4633.0	8494.5	2.4
Total pressure drop through all silencers: <u>11.3 inches WG.</u> 消音器壓損			

Pressure Data Through Piping Systems

	Flow Rate [CFM]	Face Velocity [FPM]	Presssure Drop [inches WG]
Wye Fitting:	2316.0	16985.2	0.1
Elbow:	4633.0	13272.6	0.9
Elbow:	4633.0	13272.6	0.9
Elbow:	4633.0	13272.6	0.9
Piping Segment:	4633.0	13272.6	3.6
Total pressure drop through piping system: <u>6.3 inches WG.</u> 管路壓損			

Total Back-pressure on Engine = 17.6 inches WG. 系統總壓損



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