Table C4 Turbochargers		
4 – 200 H:	Z	
Total combined power from cylinder group serving one turbocharger	Velocity	Acceleration
Below 5 MW	45 mm/s	2.5 g
5 - 10 MW	50 mm/s	2.0 g
Above 10 MW	55 mm/s	1.5 g

To be measured at the top of compressor casing. 20% overshoot of the above criteria allowed for non continuous running in the operating speed range.

Table C5 Diesel driven generators and electrical motors on thrusters

Velocity	
4 – 200 Hz	
18 mm/s	

To be measured in any direction on the bearings. Applies to both fixed and resilient mounted. 1st order vibration above 7 mm/s should be investigated.

Table C6 Turbines

Velocity	
4 – 1000 Hz	
7 mm/s	

To be measured in any direction on the bearings. Applies to both fixed and resilient mounted.

Table C7 Turbine driven generators

Velocity	
4 – 1000 Hz	
7 mm/s	

To be measured in any direction on the bearings. Applies to both fixed and resilient mounted.

Table C8 Gears

Velocity	
4 – 1000 Hz	
7 mm/s	

To be measured in any direction on the foundation and on the input shaft bearing

Table C1 Shaft line bearings

	Ve	eloci	ty
1	-	200	Hz
	5	mm	/s

To be measured horizontally or vertically with the shaft centre. Shaft line vibration is specified in Pt.4 Ch.4 Sec.1. Frequency spectra to be presented to identify low frequency components.

Table C2 Diesel engines < 200 rpm

	1-20	00 Hz
	Displacement	Velocity
Vertical	1 mm	10 mm/s
Longitudinal	1 mm	10 mm/s
Transverse	1.5 mm_	= 25 mm/s

To be measured at the top of the A – frame at engine ends. Frequency spectra to be presented to identify low frequency components.

Table C3 Diesel engines > 200 rpm

15 mm/s

_	Velocity		
	4 – 200 Hz		
Firmly mounted		Resiliently mounted	

25 mm/s

To be measured on the engine block top and bottom. 20% overshoot of the above criteria allowed for non continuous running in the operating speed range.

Table C9 Electric motors, separators, motor driven hydraulic pumps, fans not installed on reciprocating engines

Landley, many more and transported and many	
	Velocity
	4.0 – 200 Hz ¹⁾
Internal excited	7 mm/s ²⁾
External excited	12 mm/s

To be measured in any direction on the bearings.

- The upper frequency limit shall be at least 200 Hz and above 2 x rpm
- For vertically mounted motors the vibration level may be increased by 50% for the top of the motor.

Table C10 Compressors (screw or centrifugal)		
	Velocity	
	4 – 200 Hz ¹⁾	
Elastically mounted	10 mm/s	
Fixed mounted	7 mm/s	

To be measured in any direction on the bearings.

 The upper frequency limit shall be at least 200 Hz and above 2x rpm

Table C11 Reciprocating compressors Velocity 4 - 200 Hz 30 mm/s

To be measured in any direction on the bearings. Applies for both resilient and fixed mounted.

Table C12 Boilers

Velocity	
4 – 200 Hz	
45 mm/s	

To be measured on stiff parts, e.g. lugs, flanges etc.

Table C13 Pipes

Velocity
4 – 200 Hz
45 mm/s

	Velocity
	4 - 200 Hz
Mounted on bulkheads	12 mm/s
Mounted on masts	20 mm/s
Mounted on machinery	25 mm/s

Table B1	Steel	
	Velocity	
	4 – 200 Hz	
	45 mm/s	

Table B2	Aluminium	
	Velocity	
	4 – 200 Hz	
	15 mm/s	