## **FLEXIBLE ENGINE MOUNTINGS**

# ALL VETUS ENGINE MOUNTINGS ABSORB THE PROPELLER THRUST

The torque of an engine is one of the deciding factors for determination of the load applied to the engine mounts. When more powerful engines are installed, it is important to use the following formula to define the load per support in kg (4 supporting points).

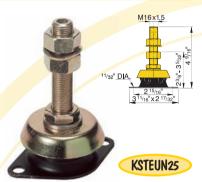
engine weight in kg number of supports

+ kW x 487 x reduction of gearbox engine revs/min.x centre to centre spacing in metres of the longitudinal engine bearers max. load per support in ka

### **TYPE K 25**

Application: small engines and generator sets with 1 or 2 cylinders. This flexible mounting contains a special rubber compound with excellent vibration damping properties.

These flexible engine mountings are suitable for marine diesel engines in the power range between 4 kW and 15 kW (6 HP - 20 HP).



Туре	Stiffness ratio			Min.	Min. com-	Max.	Max. com-	Hardness
	verti- athwart- fore and		load	pression	load	pression	in °	
	cal	ships	aft	lbs	inch	lbs	inch	Shore
			sta	tic	static +	dynamic		
K25	1	1.4	1.4	34	0.051	78	0.12	56



#### **TYPE K 40**

The relatively soft rubber compound of these flexible mountings fulfils precisely the requirements of light-weight vessels, equipped with a modern 3-cylinder marine diesel engine, with regard to the insulation of vibrations. The rubber elements are especially shaped to create the optimum in vibration dampening. The VETUS flexible engine mounting type K40 features internal buffers, which limit the engine movement when started or stopped and it is also secured against overload and shearing off.

Туре	Stiffness ratio			Min.	Min. com-	Max.	Max. com-	Hardness
	verti- athwart- fore and		load	pression	load	pression	in °	
	cal	ships	aft	lbs	inch	lbs	inch	Shore
			sta	tic	static +	dynamic		
K40	1	1	2.4	55	0.2	88	0.3	50

#### TYPE K

For smaller engines, up to appr. 60 kW (80 HP).





	Туре	Stiffness ratio			Min.	Min. com-	Max.	Max. com-	Hardness
		verti-	athwart-	fore and	load	pression	load	pression	in °
		cal	ships	aft	lbs	inch	lbs	inch	Shore
					sta	itic	static + dynamic		
I	K50	1	0.75	2.5	56	0.079	112	0.16	45
	K75	1	0.75	2.5	85	0.079	178	0.16	55
	K100	1	0.75	2.5	112	0.079	224	0.16	65

#### **TYPE MITSTEUN**

This hydro-damper is a combination of a conventional rubber-metal damper and a hydraulic shock absorber. Especially for engines with 1, 2 or 3 cylinders, producing many horizontal and vertical movements, the VETUS hydro-damper is an absolute sensation: the reduction of vibration and noise is truly staggering. The maximum static

load per support is 60 kg and the maximum thrust per support is 50 kg. In other words: dependent on gearbox ratio, number of revolutions, propeller diameter etc., these mountings are suitable for engines of up to 18 - 26 kW (25 - 35 HP).

MITSTEUN ENGINE RPM\_ MEASURED VIBRATION OF THE ENGINE FOUNDATION 12 CYL. DIESEL1

M16x1,5

M16x1,5

ı	Туре	Stiffness ratio			Min.	Min. com-	Max.	Max. com-	Hardness
ı		verti- athwart- fore ar		fore and	load	pression	load	pression	in °
ı		cal	ships	aft	lbs	inch	lbs	inch	Shore
l				sta	tic	static + o	dynamic		
	Mitsteun	1	1	1	56	0.051	150	0.18	45

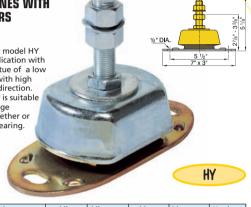


## TYPE HY

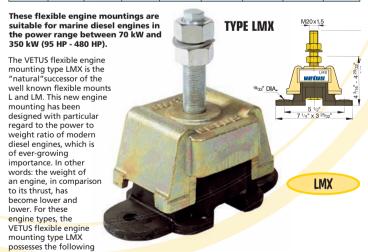
The VETUS vibration damper model HY is extremely suitable for application with marine diesel engines, by virtue of a low vertical stiffness, combined with high stiffness in the longitudinal direction. This sturdy vibration damper is suitable for engines in the power range between 30 and 125 kW, whether or not provided with a thrust bearing.

These flexible engine mountings are suitable for marine diesel engines in the power range between 30 kW and 125 kW (40 HP - 170 HP)

ideal characteristics:



Туре	Stiffness ratio			Min.	Min. com-	Max.	Max. com-	Hardness				
	verti- athwart- fore and		load	pression	load	pression	in °					
	cal	ships	aft	lbs	inch	lbs	inch	Shore				
				static		static + dynamic						
HY100	1	1.2	3.5	88	0.079	220	0.2	40				
HY150	1	1.2	3.5	132	0.079	331	0.2	50				
HY230	1	1.2	3.5	203	0.079	507	0.25	60				



- The ample vertical compression guarantees optimum damping of vibrations, even at idling revs.
- The horizontal fore and aft stiffness is very high, which allows the acceptance of considerable thrust.
  The cushioning of vibrations in horizontal direction athwartships is of equal excellence.

Туре	Stiffness ratio			Min.	Min. com-	Max.	Max. com-	Hardness
	verti-	athwart-	fore and	load	pression	load	pression	in °
	cal	ships	aft	lbs	inch	lbs	inch	Shore
				sta	itic	static +	dynamic	
LMX140	1	1	7	191	0.12	314	0.2	35
LMX210	1	1	7	281	0.12	472	0.2	45
LMX340	1	1	7	460	0.12	764	0.2	55
LMX500	1	1	7	674	0.12	1123	0.2	65