

X72DF-1.2

External forces and moments

Crankshaft type : Full crank pin

Rating R1 : 2600 kW/Cyl. @ 79 rpm / max. values of Gas/Diesel Mode

Engine Type		5X72DF-1.2	6X72DF-1.2
Speed		79 rpm	79 rpm
Power		13000 kW	15600 kW
Crank type		FCV5	FCV5
Massmoments / Forces			
Free Forces			
F1v	[±kN]	0	0
F1h	[±kN]	0	0
F2v	[±kN]	0	0
F4v	[±kN]	0	0
External Moments			
M1v	[±kNm]	279	0
M1h	[±kNm]	287	0
M2v	[±kNm]	3361	2338
M2v *)	[±kNm]	1178	1087
M4v	[±kNm]	21	162
Lateral H-Moments M_{LH}			
Ord.1	[±kNm]	0	0
Ord.2	[±kNm]	0	0
Ord.3	[±kNm]	0	0
Ord.4	[±kNm]	0	0
Ord.5	[±kNm]	1845	0
Ord.6	[±kNm]	0	1390
Ord.7	[±kNm]	0	0
Ord.8	[±kNm]	0	0
Ord.9	[±kNm]	0	0
Ord.10	[±kNm]	292	0
Ord.11	[±kNm]	0	0
Ord.12	[±kNm]	0	191
Lateral X-Moments M_{LX}			
Ord.1	[±kNm]	225	0
Ord.2	[±kNm]	317	220
Ord.3	[±kNm]	258	467
Ord.4	[±kNm]	65	503
Ord.5	[±kNm]	0	0
Ord.6	[±kNm]	26	0
Ord.7	[±kNm]	221	0
Ord.8	[±kNm]	152	106
Ord.9	[±kNm]	8	168
Ord.10	[±kNm]	0	58
Ord.11	[±kNm]	6	0
Ord.12	[±kNm]	40	0
Torque variation		1850.8	1360.2

*) with iELBA applied at FE + DE

The values for other engine ratings are available on request

The resulting lateral guide force at the crosshead can be estimated as follows: FL=MLH x 0.215 [kN]

5-6 X72DF-1.2 / Free external mass moments
Power Related Unbalance (PRU)
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