X72DF-2.1

External forces and moments

Crankshaft type : Full crank pin

Rating R1 : 3225 kW/Cyl. @ 89 rpm / max. values of Gas/Diesel Mode/iCER-Diesel Mode

Engine Type		**5X72DF-2.1**	**6X72DF-2.1**	**7X72DF-2.1**	**8X72DF-2.1**
Speed		89 rpm	89 rpm	89 rpm	89 rpm
Power		16125 kW	19350 kW	22575 kW	25800 kW
Crank type		FCV2	FCV2	FCV2	FCV1
Massmoments / Forces					
Free Forces					
F1v	[±kN]	0	0	0	0
F1h	[±kN]	0	0	0	0
F2v	[±kN]	0	0	0	0
F4v	[±kN]	0	0	0	0
External Moments					
M1v	[±kNm]	379	0	230	759
M1h	[±kNm]	383	0	223	762
M2v	[±kNm]	4520	3144	913	0
M2v *)	[±kNm]	1749	1556	-	-
M4v	[±kNm]	28	218	620	252
Lateral H-Moments M_{LH}					
Ord.1	[±kNm]	0	0	0	0
Ord.2	[±kNm]	0	0	0	0
Ord.3	[±kNm]	0	0	0	0
Ord.4	[±kNm]	0	0	0	0
Ord.5	[±kNm]	2573	0	0	0
Ord.6	[±kNm]	0	1863	0	0
Ord.7	[±kNm]	0	0	1449	0
Ord.8	[±kNm]	0	0	0	1208
Ord.9	[±kNm]	0	0	0	0
Ord.10	[±kNm]	370	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	0	276	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	296	0	176	590
Ord.2	[±kNm]	688	478	139	0
Ord.3	[±kNm]	340	614	672	861
Ord.4	[±kNm]	89	685	1945	790
Ord.5	[±kNm]	0	0	159	1988
Ord.6	[±kNm]	35	0	21	0
Ord.7	[±kNm]	279	0	0	50
Ord.8	[±kNm]	214	149	12	0
Ord.9	[±kNm]	12	244	27	24
Ord.10	[±kNm]	0	69	195	0
Ord.11	[±kNm]	8	0	169	217
Ord.12	[±kNm]	64	0	13	51
Torque variation	[±kNm]	2610.9	1901.2	1485.8	1226.4

*) 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]

5-8 X72DF-2.1 / Free external mass moments
Power Related Unbalance (PRU)
Rating R1 3225 kW/Cyl @ 89 rpm

Crankshaft type: Full crank pin

