

X72DF

External forces and moments

Crankshaft type : Full crank pin

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

Engine Type		5X72DF	6X72DF	7X72DF	8X72DF
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]	1952	0	0	0
Ord.6	[±kNm]	0	1395	0	0
Ord.7	[±kNm]	0	0	1163	0
Ord.8	[±kNm]	0	0	0	931
Ord.9	[±kNm]	0	0	0	0
Ord.10	[±kNm]	304	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	0	215	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	276	0	164	551
Ord.2	[±kNm]	822	572	166	0
Ord.3	[±kNm]	451	814	891	1141
Ord.4	[±kNm]	70	540	1534	623
Ord.5	[±kNm]	0	0	124	1558
Ord.6	[±kNm]	27	0	16	0
Ord.7	[±kNm]	228	0	0	41
Ord.8	[±kNm]	161	112	9	0
Ord.9	[±kNm]	9	179	20	18
Ord.10	[±kNm]	0	59	167	0
Ord.11	[±kNm]	6	0	134	172
Ord.12	[±kNm]	47	0	9	38
Torque variation	[±kNm]	1979	1384	1162	937

*) 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 / Free external mass moments Power Related Unbalance (PRU) Rating R1 3225 kW/Cyl @ 89 rpm

Crankshaft type: Full crank pin

