

RT-flex50DF

External forces and moments

Crankshaft type : Forged / full crank pin

Rating R1 : 1440 kW/Cyl. @ 124 rpm / max. values of Gas/Diesel-Mode

Engine Type	5RT-flex50DF	6RT-flex50DF	7RT-flex50DF	8RT-flex50DF
Speed	124 rpm	124 rpm	124 rpm	124 rpm
Power	7200 kW	8640 kW	10080 kW	11520 kW
Crank type	Forged	Forged	Forged	Forged
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]	114	0	241	226
M1h [±kNm]	113	0	105	228
M2v *) [±kNm]	1348	938	272	0
M4v [±kNm]	8	65	185	75
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]	620	0	0	0
Ord.6 [±kNm]	0	447	0	0
Ord.7 [±kNm]	0	0	373	0
Ord.8 [±kNm]	0	0	0	298
Ord.9 [±kNm]	0	0	0	0
Ord.10 [±kNm]	97	0	0	0
Ord.11 [±kNm]	0	0	0	0
Ord.12 [±kNm]	0	69	0	0
Lateral X-Moments M_{Lx}				
Ord.1 [±kNm]	87	0	52	174
Ord.2 [±kNm]	202	140	41	0
Ord.3 [±kNm]	118	214	234	300
Ord.4 [±kNm]	23	176	499	203
Ord.5 [±kNm]	0	0	40	501
Ord.6 [±kNm]	9	0	5	0
Ord.7 [±kNm]	75	0	0	13
Ord.8 [±kNm]	53	37	3	0
Ord.9 [±kNm]	3	59	7	6
Ord.10 [±kNm]	0	19	55	0
Ord.11 [±kNm]	2	0	44	57
Ord.12 [±kNm]	15	0	3	12
Torque variation [±kNm]	628	443	372	300

* No engine fitted 2nd order balancer available. If reduction of M2v is needed, an external compensator has to be applied.

The values for other engine ratings are available on request

The resulting lateral guide force at the crosshead can be estimated as follows: $FL=MLH \times 0.324$ [kN]

5-8 RT-flex50DF / Free external mass moments
Power Related Unbalance (PRU)
 Rating R1 1440 kW/Cyl @ 124 rpm

Crankshaft type: Full crank pin

