

# RT-flex50-D

## External forces and moments

Crankshaft type : Forged / full crank pin

Rating R1 : 1745 kW/Cyl. / 124 rpm , Standard Tier2-EO Tuning

Engine Type		5RT-flex50-D	6RT-flex50-D	7RT-flex50-D	8RT-flex50-D	
Speed		124 rpm	124 rpm	124 rpm	124 rpm	
Power		8725 kW	10470 kW	12215 kW	13960 kW	
<b>Massmoments / Forces</b>						
<b>Free Forces</b>						
F1v	[±kN]	0	0	0	0	
F1h	[±kN]	0	0	0	0	
F2v	[±kN]	0	0	0	0	
F4v	[±kN]	0	0	0	0	
<b>External Moments</b>						
M1v	[±kNm]	114	0	241	227	
M1h	[±kNm]	114	0	105	227	
M2v *)	[±kNm]	1349	938	272	0	
M4v	[±kNm]	8	65	185	75	
<b>Lateral H-Moments M<sub>LH</sub></b>						
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]	766	0	0	0	
Ord.6	[±kNm]	0	564	0	0	
Ord.7	[±kNm]	0	0	444	0	
Ord.8	[±kNm]	0	0	0	309	
Ord.9	[±kNm]	0	0	0	0	
Ord.10	[±kNm]	68	0	0	0	
Ord.11	[±kNm]	0	0	0	0	
Ord.12	[±kNm]	0	19	0	0	
<b>Lateral X-Moments M<sub>LX</sub></b>						
Ord.1	[±kNm]	88	0	52	175	
Ord.2	[±kNm]	132	92	27	0	
Ord.3	[±kNm]	81	147	161	206	
Ord.4	[±kNm]	29	221	629	256	
Ord.5	[±kNm]	0	0	48	600	
Ord.6	[±kNm]	11	0	7	0	
Ord.7	[±kNm]	90	0	0	16	
Ord.8	[±kNm]	52	36	3	0	
Ord.9	[±kNm]	3	54	6	5	
Ord.10	[±kNm]	0	14	38	0	
Ord.11	[±kNm]	1	0	17	21	
Ord.12	[±kNm]	4	0	1	3	
<b>Torque variation</b>		[±kNm]	789	576	452	314

\* 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 can be calculated as follows: FL=MLH x 0.324 [kN]

# RT-flex50-D

## External forces and moments

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Rating R1 : 1745 kW/Cyl. / 124 rpm , Delta Tier2-EO Tuning

Engine Type		5RT-flex50-D	6RT-flex50-D	7RT-flex50-D	8RT-flex50-D	
Speed		124 rpm	124 rpm	124 rpm	124 rpm	
Power		8725 kW	10470 kW	12215 kW	13960 kW	
<b>Massmoments / Forces</b>						
<b>Free Forces</b>						
F1v	[±kN]	0	0	0	0	
F1h	[±kN]	0	0	0	0	
F2v	[±kN]	0	0	0	0	
F4v	[±kN]	0	0	0	0	
<b>External Moments</b>						
M1v	[±kNm]	114	0	241	227	
M1h	[±kNm]	114	0	105	227	
M2v *)	[±kNm]	1349	938	272	0	
M4v	[±kNm]	8	65	185	75	
<b>Lateral H-Moments M<sub>LH</sub></b>						
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]	767	0	0	0	
Ord.6	[±kNm]	0	569	0	0	
Ord.7	[±kNm]	0	0	452	0	
Ord.8	[±kNm]	0	0	0	319	
Ord.9	[±kNm]	0	0	0	0	
Ord.10	[±kNm]	74	0	0	0	
Ord.11	[±kNm]	0	0	0	0	
Ord.12	[±kNm]	0	25	0	0	
<b>Lateral X-Moments M<sub>LX</sub></b>						
Ord.1	[±kNm]	87	0	52	174	
Ord.2	[±kNm]	136	95	28	0	
Ord.3	[±kNm]	79	142	156	199	
Ord.4	[±kNm]	29	221	628	255	
Ord.5	[±kNm]	0	0	48	601	
Ord.6	[±kNm]	12	0	7	0	
Ord.7	[±kNm]	92	0	0	17	
Ord.8	[±kNm]	54	37	3	0	
Ord.9	[±kNm]	3	57	6	6	
Ord.10	[±kNm]	0	15	42	0	
Ord.11	[±kNm]	1	0	20	25	
Ord.12	[±kNm]	5	0	1	4	
<b>Torque variation</b>		[±kNm]	790	580	459	323

\* 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 can be calculated as follows: FL=MLH x 0.324 [kN]

**5-8 RT-flex50-D / Free external mass moments  
Power Related Unbalance (PRU)  
Rating R1 1745 kW/Cyl @ 124 rpm**

Crankshaft type: Forged

