

# RT-flex48T-D

## External forces and moments

Crankshaft type : Forged / hollow crank pin

Rating R1 : 1455 kW/Cyl. / 127 rpm , Standard Tier2-EO Tuning

Engine Type		5RT-flex48T-D	6RT-flex48T-D	7RT-flex48T-D	8RT-flex48T-D	
Speed		127 rpm	127 rpm	127 rpm	127 rpm	
Power		7275 kW	8730 kW	10185 kW	11640 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]	100	0	60	196	
M1h	[±kNm]	75	0	44	153	
M2v *)	[±kNm]	1128	785	228	0	
M4v	[±kNm]	8	64	182	74	
<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]	680	0	0	0	
Ord.6	[±kNm]	0	493	0	0	
Ord.7	[±kNm]	0	0	389	0	
Ord.8	[±kNm]	0	0	0	278	
Ord.9	[±kNm]	0	0	0	0	
Ord.10	[±kNm]	63	0	0	0	
Ord.11	[±kNm]	0	0	0	0	
Ord.12	[±kNm]	0	22	0	0	
<b>Lateral X-Moments M<sub>LX</sub></b>						
Ord.1	[±kNm]	80	0	48	161	
Ord.2	[±kNm]	72	50	14	0	
Ord.3	[±kNm]	75	135	148	189	
Ord.4	[±kNm]	26	198	563	229	
Ord.5	[±kNm]	0	0	45	563	
Ord.6	[±kNm]	10	0	6	0	
Ord.7	[±kNm]	80	0	0	14	
Ord.8	[±kNm]	48	34	3	0	
Ord.9	[±kNm]	2	48	5	5	
Ord.10	[±kNm]	0	13	36	0	
Ord.11	[±kNm]	1	0	19	24	
Ord.12	[±kNm]	5	0	1	4	
<b>Torque variation</b>		[±kNm]	696	499	391	277

\* 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 0.349 [kN]

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Speed		127 rpm	127 rpm	127 rpm	127 rpm
Power		7275 kW	8730 kW	10185 kW	11640 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]	100	0	60	196
M1h	[±kNm]	75	0	44	153
M2v *)	[±kNm]	1128	785	228	0
M4v	[±kNm]	8	64	182	74
<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]	668	0	0	0
Ord.6	[±kNm]	0	481	0	0
Ord.7	[±kNm]	0	0	377	0
Ord.8	[±kNm]	0	0	0	265
Ord.9	[±kNm]	0	0	0	0
Ord.10	[±kNm]	58	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	0	18	0	0
<b>Lateral X-Moments M<sub>LX</sub></b>					
Ord.1	[±kNm]	80	0	48	160
Ord.2	[±kNm]	78	54	16	0
Ord.3	[±kNm]	79	143	156	200
Ord.4	[±kNm]	25	196	557	226
Ord.5	[±kNm]	0	0	44	553
Ord.6	[±kNm]	10	0	6	0
Ord.7	[±kNm]	78	0	0	14
Ord.8	[±kNm]	46	32	2	0
Ord.9	[±kNm]	2	45	5	4
Ord.10	[±kNm]	0	12	33	0
Ord.11	[±kNm]	1	0	16	21
Ord.12	[±kNm]	4	0	1	3
<b>Torque variation</b>	[±kNm]	684	487	380	265

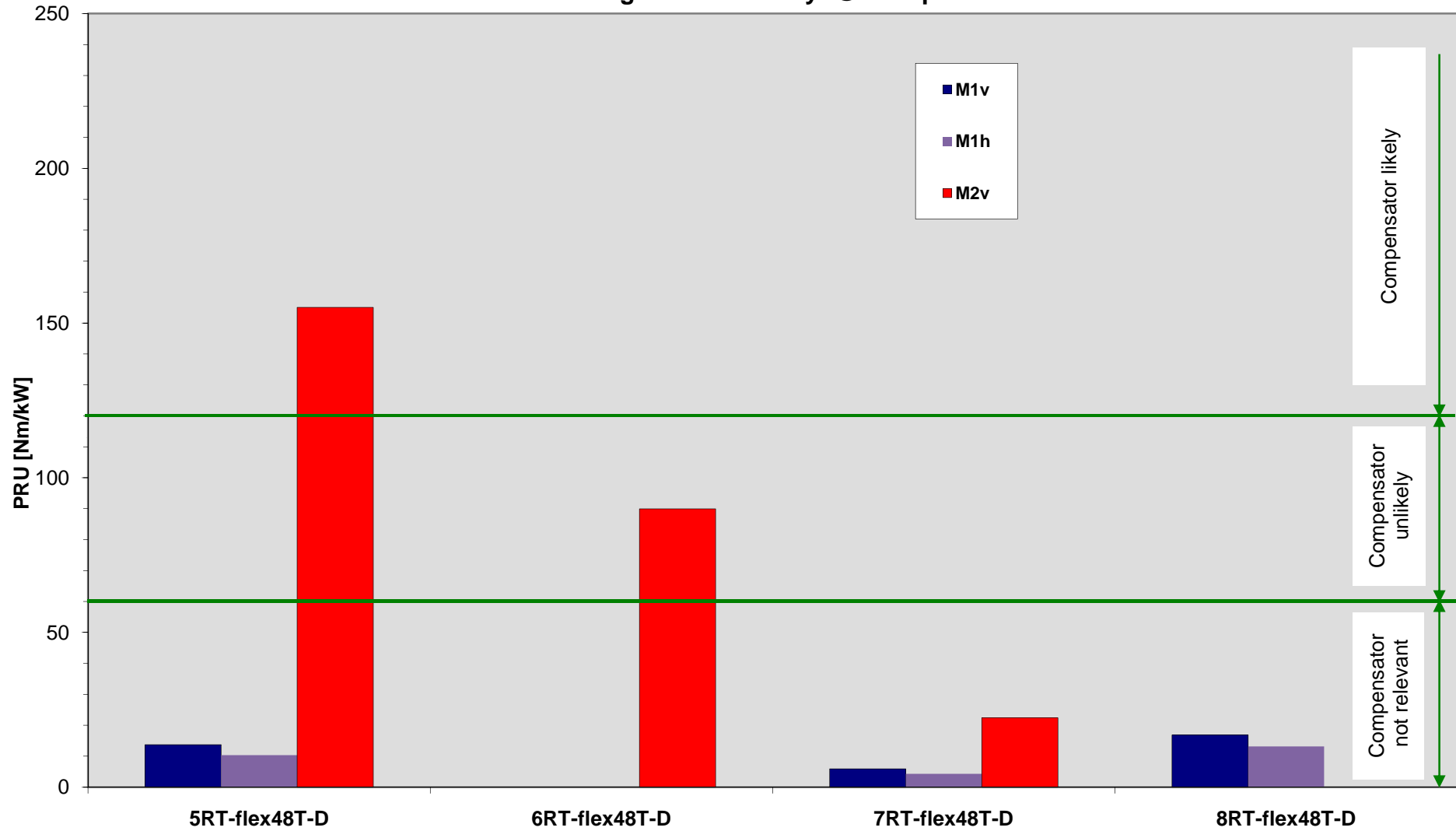
\* No engine fitted 2nd order balancer available. If reduction of M2v is needed, an external compensator has to be applied.

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The resulting lateral guide force can be calculated as follows: FL=MLH x 0.349 [kN]

### 5-8 RT-flex48T-D / Free external mass moments Power Related Unbalance (PRU) Rating R1 1455 kW/Cyl @ 127 rpm

Crankshaft type: Forged / Hollow crank pin



# RT-flex48T-D

## External forces and moments

Crankshaft type : Forged / full crank pin

Rating R1 : 1455 kW/Cyl. / 127 rpm , Standard Tier2-EO Tuning

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Power		7275 kW	8730 kW	10185 kW	11640 kW	
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<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]	116	0	69	229	
M1h	[±kNm]	58	0	35	120	
M2v *)	[±kNm]	1128	785	228	0	
M4v	[±kNm]	8	64	182	74	
<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	
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Ord.9	[±kNm]	2	48	5	5	
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F2v	[±kN]	0	0	0	0
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<b>External Moments</b>					
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Ord.9	[±kNm]	2	45	5	4
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<b>Torque variation</b>	[±kNm]	684	487	380	265

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Crankshaft type: Forged / Full crank pin

