

X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1+ : 4750 kW/Cyl. / 84 rpm , Standard Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	350	1171	642
M1h	[±kNm]	0	344	1157	636
M2v *)	[±kNm]	4766	1384	0	2340
M4v	[±kNm]	325	923	375	519
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]	0	0	0	0
Ord.6	[±kNm]	2569	0	0	0
Ord.7	[±kNm]	0	2091	0	0
Ord.8	[±kNm]	0	0	1504	0
Ord.9	[±kNm]	0	0	0	1037
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	116	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	234	787	432
Ord.2	[±kNm]	769	223	0	378
Ord.3	[±kNm]	805	880	1128	1539
Ord.4	[±kNm]	1005	2855	1160	1606
Ord.5	[±kNm]	0	222	2782	1221
Ord.6	[±kNm]	0	32	0	2077
Ord.7	[±kNm]	0	0	80	151
Ord.8	[±kNm]	182	14	0	26
Ord.9	[±kNm]	286	32	29	0
Ord.10	[±kNm]	75	214	0	11
Ord.11	[±kNm]	0	97	124	17
Ord.12	[±kNm]	0	5	21	89
Torque variation	[±kNm]	2586	2082	1479	1037

* 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 0.196 [kN]

X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1+ : 4750 kW/Cyl. / 84 rpm , Delta Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	350	1171	642
M1h	[±kNm]	0	344	1157	636
M2v *)	[±kNm]	4766	1384	0	2340
M4v	[±kNm]	325	923	375	519
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]	0	0	0	0
Ord.6	[±kNm]	2549	0	0	0
Ord.7	[±kNm]	0	2086	0	0
Ord.8	[±kNm]	0	0	1518	0
Ord.9	[±kNm]	0	0	0	1065
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	136	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	232	778	427
Ord.2	[±kNm]	804	233	0	395
Ord.3	[±kNm]	830	908	1164	1588
Ord.4	[±kNm]	994	2824	1147	1588
Ord.5	[±kNm]	0	220	2756	1210
Ord.6	[±kNm]	0	32	0	2063
Ord.7	[±kNm]	0	0	79	151
Ord.8	[±kNm]	184	14	0	26
Ord.9	[±kNm]	296	33	29	0
Ord.10	[±kNm]	78	221	0	11
Ord.11	[±kNm]	0	105	135	18
Ord.12	[±kNm]	0	6	25	107
Torque variation	[±kNm]	2562	2071	1485	1064

* 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 0.196 [kN]

X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1+ : 4750 kW/Cyl. / 84 rpm , LowLoad Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	350	1171	642
M1h	[±kNm]	0	344	1157	636
M2v *)	[±kNm]	4766	1384	0	2340
M4v	[±kNm]	325	923	375	519
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]	0	0	0	0
Ord.6	[±kNm]	2550	0	0	0
Ord.7	[±kNm]	0	2086	0	0
Ord.8	[±kNm]	0	0	1520	0
Ord.9	[±kNm]	0	0	0	1065
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	137	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	232	779	428
Ord.2	[±kNm]	802	233	0	394
Ord.3	[±kNm]	831	909	1165	1589
Ord.4	[±kNm]	994	2825	1148	1589
Ord.5	[±kNm]	0	220	2759	1211
Ord.6	[±kNm]	0	32	0	2063
Ord.7	[±kNm]	0	0	79	151
Ord.8	[±kNm]	185	14	0	26
Ord.9	[±kNm]	295	33	29	0
Ord.10	[±kNm]	78	222	0	11
Ord.11	[±kNm]	0	107	137	18
Ord.12	[±kNm]	0	6	25	107
Torque variation	[±kNm]	2564	2072	1488	1065

* 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 0.196 [kN]

X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1+ : 4750 kW/Cyl. / 84 rpm , Delta Bypass Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	350	1171	642
M1h	[±kNm]	0	344	1157	636
M2v *)	[±kNm]	4766	1384	0	2340
M4v	[±kNm]	325	923	375	519
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]	0	0	0	0
Ord.6	[±kNm]	2550	0	0	0
Ord.7	[±kNm]	0	2085	0	0
Ord.8	[±kNm]	0	0	1515	0
Ord.9	[±kNm]	0	0	0	1058
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	133	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	232	780	428
Ord.2	[±kNm]	798	232	0	392
Ord.3	[±kNm]	829	907	1163	1586
Ord.4	[±kNm]	996	2829	1150	1591
Ord.5	[±kNm]	0	220	2760	1211
Ord.6	[±kNm]	0	32	0	2062
Ord.7	[±kNm]	0	0	79	150
Ord.8	[±kNm]	184	14	0	26
Ord.9	[±kNm]	293	33	29	0
Ord.10	[±kNm]	77	220	0	11
Ord.11	[±kNm]	0	105	134	18
Ord.12	[±kNm]	0	6	24	103
Torque variation	[±kNm]	2564	2071	1484	1057

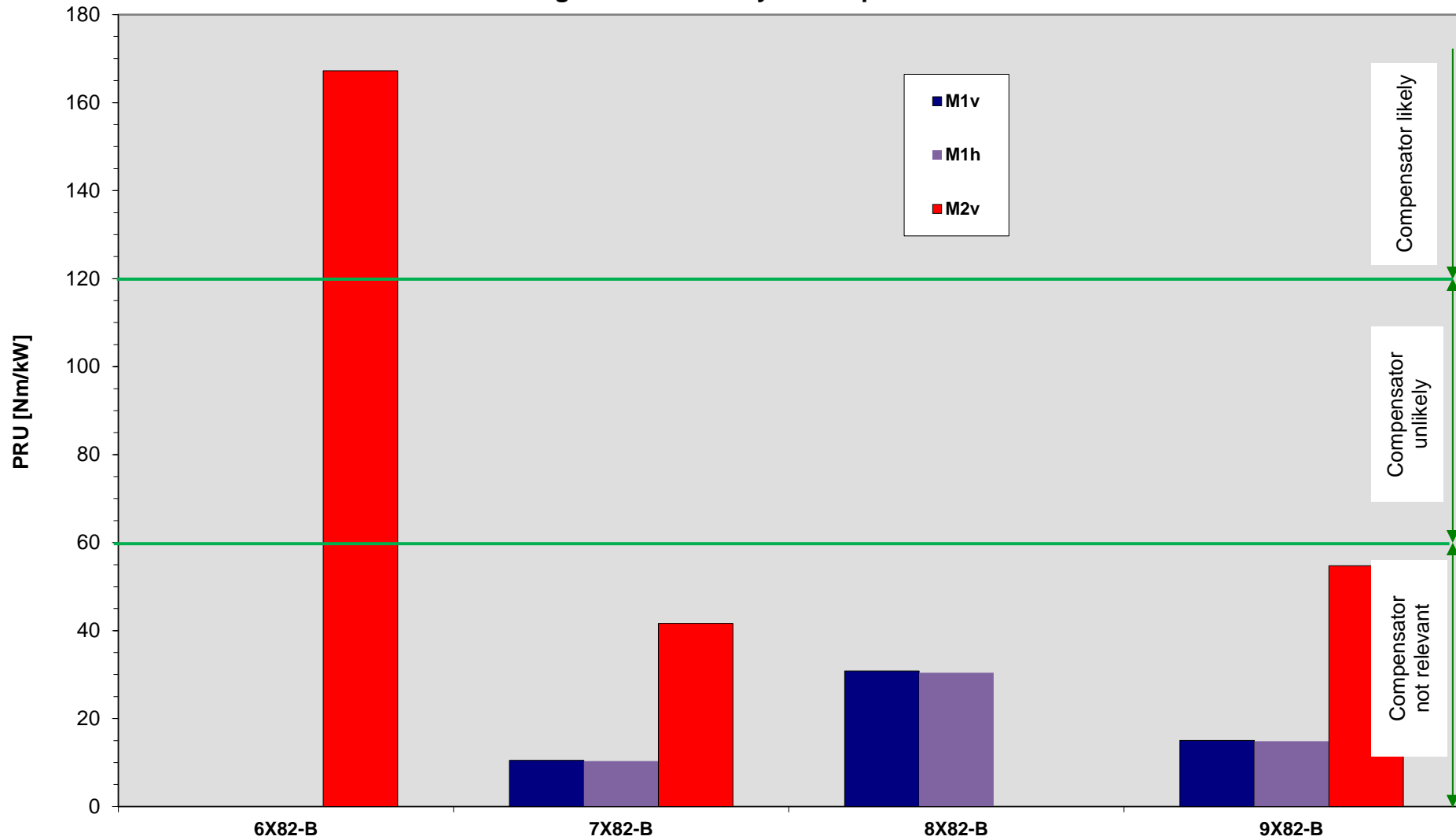
* No engine fitted 2nd order balancer available. If reduction of M2v is needed, an external compensator has to be applied.

The values for other engine ratings are available on request

The resulting lateral guide force can be calculated as follows: $FL = MLH \times 0.196$ [kN]

**6-9 X82-B / Free external mass moments
Power Related Unbalance (PRU)
Rating R1+ 4750 kW/Cyl @ 84 rpm**

Crankshaft type: FCV1/FCV2



X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1 : 4750 kW/Cyl. / 76 rpm , Standard Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		76 rpm	76 rpm	76 rpm	76 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	286	959	526
M1h	[±kNm]	0	282	947	521
M2v *)	[±kNm]	3902	1133	0	1915
M4v	[±kNm]	266	756	307	425
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]	0	0	0	0
Ord.6	[±kNm]	2566	0	0	0
Ord.7	[±kNm]	0	2046	0	0
Ord.8	[±kNm]	0	0	1422	0
Ord.9	[±kNm]	0	0	0	909
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	77	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	231	775	426
Ord.2	[±kNm]	221	64	0	108
Ord.3	[±kNm]	743	812	1041	1420
Ord.4	[±kNm]	1032	2932	1191	1649
Ord.5	[±kNm]	0	220	2760	1211
Ord.6	[±kNm]	0	32	0	2049
Ord.7	[±kNm]	0	0	78	148
Ord.8	[±kNm]	173	13	0	25
Ord.9	[±kNm]	240	27	24	0
Ord.10	[±kNm]	66	187	0	9
Ord.11	[±kNm]	0	85	109	15
Ord.12	[±kNm]	0	3	10	44
Torque variation	[±kNm]	2584	2041	1397	909

* 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 0.196 [kN]

X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1 : 4750 kW/Cyl. / 76 rpm , Delta Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		76 rpm	76 rpm	76 rpm	76 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	286	959	526
M1h	[±kNm]	0	282	947	521
M2v *)	[±kNm]	3902	1133	0	1915
M4v	[±kNm]	266	756	307	425
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]	0	0	0	0
Ord.6	[±kNm]	2549	0	0	0
Ord.7	[±kNm]	0	2047	0	0
Ord.8	[±kNm]	0	0	1441	0
Ord.9	[±kNm]	0	0	0	941
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	98	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	228	766	421
Ord.2	[±kNm]	246	72	0	121
Ord.3	[±kNm]	715	783	1003	1368
Ord.4	[±kNm]	1021	2903	1179	1633
Ord.5	[±kNm]	0	218	2732	1199
Ord.6	[±kNm]	0	32	0	2038
Ord.7	[±kNm]	0	0	78	148
Ord.8	[±kNm]	176	14	0	25
Ord.9	[±kNm]	251	28	25	0
Ord.10	[±kNm]	69	197	0	10
Ord.11	[±kNm]	0	95	121	16
Ord.12	[±kNm]	0	4	15	64
Torque variation	[±kNm]	2564	2034	1407	941

* 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 0.196 [kN]

X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1 : 4750 kW/Cyl. / 76 rpm , LowLoad Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		76 rpm	76 rpm	76 rpm	76 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	286	959	526
M1h	[±kNm]	0	282	947	521
M2v *)	[±kNm]	3902	1133	0	1915
M4v	[±kNm]	266	756	307	425
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]	0	0	0	0
Ord.6	[±kNm]	2548	0	0	0
Ord.7	[±kNm]	0	2046	0	0
Ord.8	[±kNm]	0	0	1441	0
Ord.9	[±kNm]	0	0	0	938
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	96	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	229	768	421
Ord.2	[±kNm]	243	71	0	119
Ord.3	[±kNm]	720	788	1010	1378
Ord.4	[±kNm]	1023	2906	1181	1634
Ord.5	[±kNm]	0	218	2736	1200
Ord.6	[±kNm]	0	32	0	2037
Ord.7	[±kNm]	0	0	78	148
Ord.8	[±kNm]	176	14	0	25
Ord.9	[±kNm]	249	28	25	0
Ord.10	[±kNm]	69	196	0	10
Ord.11	[±kNm]	0	95	121	16
Ord.12	[±kNm]	0	4	14	61
Torque variation	[±kNm]	2562	2033	1407	937

* 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 0.196 [kN]

X82-B

External forces and moments

Crankshaft type : FCV1 / FCV2

Rating R1 : 4750 kW/Cyl. / 76 rpm , Delta Bypass Tier2 Tuning

Engine Type		6X82-B	7X82-B	8X82-B	9X82-B
Speed		76 rpm	76 rpm	76 rpm	76 rpm
Power		28500 kW	33250 kW	38000 kW	42750 kW
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]	0	286	959	526
M1h	[±kNm]	0	282	947	521
M2v *)	[±kNm]	3902	1133	0	1915
M4v	[±kNm]	266	756	307	425
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]	0	0	0	0
Ord.6	[±kNm]	2552	0	0	0
Ord.7	[±kNm]	0	2048	0	0
Ord.8	[±kNm]	0	0	1440	0
Ord.9	[±kNm]	0	0	0	937
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	93	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	229	768	422
Ord.2	[±kNm]	241	70	0	118
Ord.3	[±kNm]	722	790	1012	1381
Ord.4	[±kNm]	1024	2911	1183	1637
Ord.5	[±kNm]	0	218	2737	1201
Ord.6	[±kNm]	0	32	0	2039
Ord.7	[±kNm]	0	0	78	148
Ord.8	[±kNm]	176	14	0	25
Ord.9	[±kNm]	249	28	25	0
Ord.10	[±kNm]	69	196	0	10
Ord.11	[±kNm]	0	93	120	16
Ord.12	[±kNm]	0	3	14	59
Torque variation	[±kNm]	2565	2035	1407	936

* 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 0.196 [kN]

6-9 X82-B / Free external mass moments Power Related Unbalance (PRU) Rating R1 4750 kW/Cyl @ 76 rpm

Crankshaft type: FCV1/FCV2

