X82-2.0

External forces and moments

Crankshaft type : Forged / hollow pin

Rating R1 : 5500 kW/Cyl. @ 84 rpm / Standard tuning

Engine Type		**6X82-2.0**	**7X82-2.0**	**8X82-2.0**	**9X82-2.0**
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		33000 kW	38500 kW	44000 kW	49500 kW
Crank type		FCV2	FCV2	FCV2	FCV2
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	359	1203	1237
M1h	[±kNm]	0	359	1204	1238
M2v *)	[±kNm]	4976	1445	0	1624
M4v	[±kNm]	345	981	399	497
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]	2856	0	0	0
Ord.7	[±kNm]	0	2268	0	0
Ord.8	[±kNm]	0	0	1616	0
Ord.9	[±kNm]	0	0	0	1087
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	144	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	284	953	979
Ord.2	[±kNm]	427	124	0	139
Ord.3	[±kNm]	815	892	1143	1412
Ord.4	[±kNm]	1149	3264	1326	1654
Ord.5	[±kNm]	0	252	3166	1252
Ord.6	[±kNm]	0	33	0	1939
Ord.7	[±kNm]	0	0	83	104
Ord.8	[±kNm]	189	15	0	50
Ord.9	[±kNm]	277	31	28	0
Ord.10	[±kNm]	83	236	0	22
Ord.11	[±kNm]	0	102	131	12
Ord.12	[±kNm]	0	6	26	100
Torque variation	[±kNm]	2887	2295	1635	1088

* 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 x 0.197 [kN]

X82-2.0

External forces and moments

Crankshaft type : Forged / hollow pin

Rating R1 : 5500 kW/Cyl. @ 84 rpm / Delta tuning

Engine Type		**6X82-2.0**	**7X82-2.0**	**8X82-2.0**	**9X82-2.0**
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		33000 kW	38500 kW	44000 kW	49500 kW
Crank type		FCV2	FCV2	FCV2	FCV2
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	359	1203	1237
M1h	[±kNm]	0	359	1204	1238
M2v *)	[±kNm]	4976	1445	0	1624
M4v	[±kNm]	345	981	399	497
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]	2770	0	0	0
Ord.7	[±kNm]	0	2211	0	0
Ord.8	[±kNm]	0	0	1575	0
Ord.9	[±kNm]	0	0	0	1067
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	150	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	282	945	971
Ord.2	[±kNm]	466	135	0	152
Ord.3	[±kNm]	858	938	1202	1486
Ord.4	[±kNm]	1123	3191	1296	1616
Ord.5	[±kNm]	0	246	3083	1219
Ord.6	[±kNm]	0	32	0	1878
Ord.7	[±kNm]	0	0	81	102
Ord.8	[±kNm]	184	14	0	49
Ord.9	[±kNm]	272	30	27	0
Ord.10	[±kNm]	83	236	0	22
Ord.11	[±kNm]	0	101	130	12
Ord.12	[±kNm]	0	7	27	105
Torque variation	[±kNm]	2801	2236	1596	1068

* 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 x 0.197 [kN]

X82-2.0

External forces and moments

Crankshaft type : Forged / hollow pin

Rating R1 : 5500 kW/Cyl. @ 84 rpm / LowLoad tuning

Engine Type		**6X82-2.0**	**7X82-2.0**	**8X82-2.0**	**9X82-2.0**
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		33000 kW	38500 kW	44000 kW	49500 kW
Crank type		FCV2	FCV2	FCV2	FCV2
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	359	1203	1237
M1h	[±kNm]	0	359	1204	1238
M2v *)	[±kNm]	4976	1445	0	1624
M4v	[±kNm]	345	981	399	497
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]	2765	0	0	0
Ord.7	[±kNm]	0	2205	0	0
Ord.8	[±kNm]	0	0	1567	0
Ord.9	[±kNm]	0	0	0	1062
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	149	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	282	945	972
Ord.2	[±kNm]	468	136	0	153
Ord.3	[±kNm]	863	944	1210	1495
Ord.4	[±kNm]	1122	3188	1296	1615
Ord.5	[±kNm]	0	245	3075	1216
Ord.6	[±kNm]	0	32	0	1875
Ord.7	[±kNm]	0	0	80	101
Ord.8	[±kNm]	183	14	0	49
Ord.9	[±kNm]	271	30	27	0
Ord.10	[±kNm]	83	235	0	22
Ord.11	[±kNm]	0	100	128	11
Ord.12	[±kNm]	0	7	27	105
Torque variation	[±kNm]	2796	2231	1588	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 at the crosshead can be estimated as follows: FL=MLH x 0.197 [kN]

X82-2.0

External forces and moments

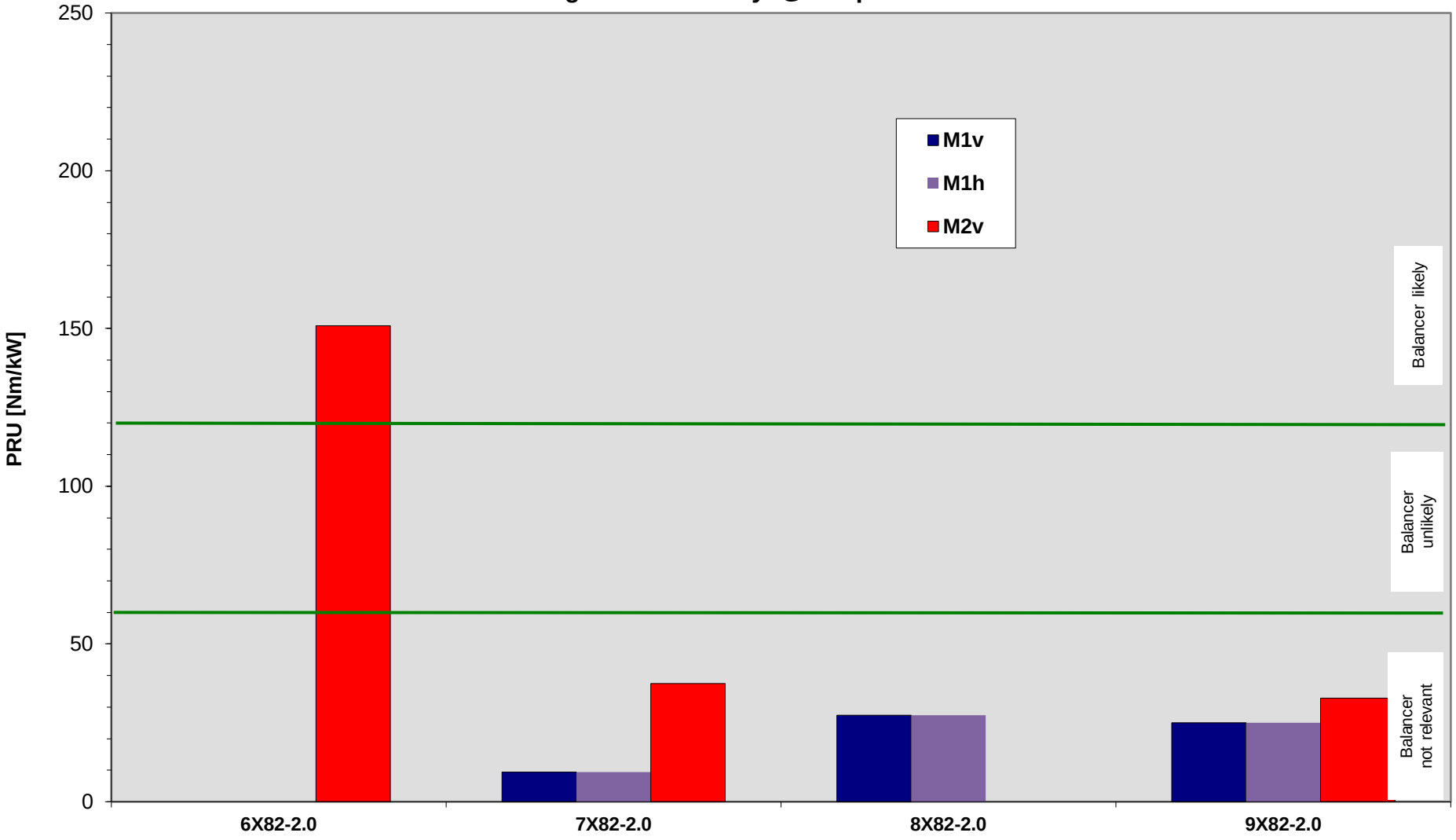
Crankshaft type : Forged / hollow pin

Rating R1 : 5500 kW/Cyl. @ 84 rpm / DeltaBypass tuning

Engine Type		**6X82-2.0**	**7X82-2.0**	**8X82-2.0**	**9X82-2.0**
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		33000 kW	38500 kW	44000 kW	49500 kW
Crank type		FCV2	FCV2	FCV2	FCV2
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	359	1203	1237
M1h	[±kNm]	0	359	1204	1238
M2v *)	[±kNm]	4976	1445	0	1624
M4v	[±kNm]	345	981	399	497
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]	2810	0	0	0
Ord.7	[±kNm]	0	2245	0	0
Ord.8	[±kNm]	0	0	1603	0
Ord.9	[±kNm]	0	0	0	1090
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	155	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	283	950	977
Ord.2	[±kNm]	448	130	0	146
Ord.3	[±kNm]	842	921	1181	1459
Ord.4	[±kNm]	1134	3223	1310	1633
Ord.5	[±kNm]	0	248	3115	1231
Ord.6	[±kNm]	0	33	0	1907
Ord.7	[±kNm]	0	0	82	103
Ord.8	[±kNm]	187	15	0	50
Ord.9	[±kNm]	279	31	28	0
Ord.10	[±kNm]	85	241	0	23
Ord.11	[±kNm]	0	104	134	12
Ord.12	[±kNm]	0	7	28	109
Torque variation	[±kNm]	2842	2270	1623	1092

* 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 x 0.197 [kN]

6-9 X82-2.0 / Free external mass moments
Power Related Unbalance (PRU)
Rating R1 5500 kW/Cyl @ 84 rpm

Crankshaft type: FCV2