

X82-D

External forces and moments

Crankshaft type : Forged / hollow pin

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

Engine Type	6X82-D	7X82-D	8X82-D	9X82-D
Speed	84 rpm	84 rpm	84 rpm	84 rpm
Power	33000 kW	38500 kW	44000 kW	49500 kW
Crank type	V25	V25	V25	V25
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	369	1239	1273
M1h [±kNm]	0	369	1239	1273
M2v *) [±kNm]	5121	1487	0	1671
M4v [±kNm]	355	1010	410	511
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]	2905	0	0	0
Ord.7 [±kNm]	0	2318	0	0
Ord.8 [±kNm]	0	0	1668	0
Ord.9 [±kNm]	0	0	0	1122
Ord.10 [±kNm]	0	0	0	0
Ord.11 [±kNm]	0	0	0	0
Ord.12 [±kNm]	148	0	0	0
Lateral X-Moments M_{LX}				
Ord.1 [±kNm]	0	286	961	987
Ord.2 [±kNm]	488	142	0	159
Ord.3 [±kNm]	805	880	1128	1394
Ord.4 [±kNm]	1156	3284	1334	1664
Ord.5 [±kNm]	0	257	3224	1274
Ord.6 [±kNm]	0	34	0	1975
Ord.7 [±kNm]	0	0	84	106
Ord.8 [±kNm]	197	15	0	52
Ord.9 [±kNm]	284	32	28	0
Ord.10 [±kNm]	86	245	0	23
Ord.11 [±kNm]	0	112	143	13
Ord.12 [±kNm]	0	6	25	99
Torque variation [±kNm]	2930	2336	1675	1122

* 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-D

External forces and moments

Crankshaft type : Forged / hollow pin

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

Engine Type		6X82-D	7X82-D	8X82-D	9X82-D
Speed		84 rpm	84 rpm	84 rpm	84 rpm
Power		33000 kW	38500 kW	44000 kW	49500 kW
Crank type		V25	V25	V25	V25
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	369	1239	1273
M1h	[±kNm]	0	369	1239	1273
M2v *)	[±kNm]	5121	1487	0	1671
M4v	[±kNm]	355	1010	410	511
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]	2865	0	0	0
Ord.7	[±kNm]	0	2299	0	0
Ord.8	[±kNm]	0	0	1663	0
Ord.9	[±kNm]	0	0	0	1130
Ord.10	[±kNm]	0	0	0	0
Ord.11	[±kNm]	0	0	0	0
Ord.12	[±kNm]	158	0	0	0
Lateral X-Moments M_{LX}					
Ord.1	[±kNm]	0	283	950	977
Ord.2	[±kNm]	521	151	0	170
Ord.3	[±kNm]	823	900	1154	1426
Ord.4	[±kNm]	1137	3232	1313	1637
Ord.5	[±kNm]	0	253	3176	1255
Ord.6	[±kNm]	0	33	0	1948
Ord.7	[±kNm]	0	0	84	105
Ord.8	[±kNm]	196	15	0	52
Ord.9	[±kNm]	287	32	29	0
Ord.10	[±kNm]	88	251	0	24
Ord.11	[±kNm]	0	117	149	13
Ord.12	[±kNm]	0	7	27	106
Torque variation	[±kNm]	2883	2311	1663	1130

* 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-D

External forces and moments

Crankshaft type : Forged / hollow pin

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

Engine Type	6X82-D	7X82-D	8X82-D	9X82-D
Speed	84 rpm	84 rpm	84 rpm	84 rpm
Power	33000 kW	38500 kW	44000 kW	49500 kW
Crank type	V25	V25	V25	V25
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	369	1239	1273
M1h [±kNm]	0	369	1239	1273
M2v *) [±kNm]	5121	1487	0	1671
M4v [±kNm]	355	1010	410	511
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]	2853	0	0	0
Ord.7 [±kNm]	0	2286	0	0
Ord.8 [±kNm]	0	0	1646	0
Ord.9 [±kNm]	0	0	0	1118
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	284	951	978
Ord.2 [±kNm]	523	152	0	171
Ord.3 [±kNm]	833	911	1168	1443
Ord.4 [±kNm]	1136	3229	1312	1636
Ord.5 [±kNm]	0	252	3163	1250
Ord.6 [±kNm]	0	33	0	1940
Ord.7 [±kNm]	0	0	83	105
Ord.8 [±kNm]	194	15	0	52
Ord.9 [±kNm]	284	32	28	0
Ord.10 [±kNm]	87	248	0	23
Ord.11 [±kNm]	0	113	145	13
Ord.12 [±kNm]	0	7	27	105
Torque variation [±kNm]	2872	2300	1649	1118

* 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-D

External forces and moments

Crankshaft type : Forged / hollow pin

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

Engine Type	6X82-D	7X82-D	8X82-D	9X82-D
Speed	84 rpm	84 rpm	84 rpm	84 rpm
Power	33000 kW	38500 kW	44000 kW	49500 kW
Crank type	V25	V25	V25	V25
Massmoments / Forces				
Free Forces				
F1v	[±kN]	0	0	0
F1h	[±kN]	0	0	0
F2v	[±kN]	0	0	0
F4v	[±kN]	0	0	0
External Moments				
M1v	[±kNm]	0	369	1239
M1h	[±kNm]	0	369	1239
M2v *)	[±kNm]	5121	1487	0
M4v	[±kNm]	355	1010	410
Lateral H-Moments M_{LH}				
Ord.1	[±kNm]	0	0	0
Ord.2	[±kNm]	0	0	0
Ord.3	[±kNm]	0	0	0
Ord.4	[±kNm]	0	0	0
Ord.5	[±kNm]	0	0	0
Ord.6	[±kNm]	2866	0	0
Ord.7	[±kNm]	0	2300	0
Ord.8	[±kNm]	0	0	1663
Ord.9	[±kNm]	0	0	0
Ord.10	[±kNm]	0	0	1132
Ord.11	[±kNm]	0	0	0
Ord.12	[±kNm]	159	0	0
Lateral X-Moments M_{LX}				
Ord.1	[±kNm]	0	284	951
Ord.2	[±kNm]	520	151	0
Ord.3	[±kNm]	824	901	1155
Ord.4	[±kNm]	1138	3234	1314
Ord.5	[±kNm]	0	253	3174
Ord.6	[±kNm]	0	33	0
Ord.7	[±kNm]	0	0	84
Ord.8	[±kNm]	196	15	0
Ord.9	[±kNm]	288	32	29
Ord.10	[±kNm]	89	252	0
Ord.11	[±kNm]	0	117	149
Ord.12	[±kNm]	0	7	28
Torque variation	[±kNm]	2884	2313	1663
				1131

* 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-D / Free external mass moments Power Related Unbalance (PRU) Rating R1 5500 kW/Cyl @ 84 rpm

Crankshaft type: V25

