

X72DF-2.2

Countermeasures for dynamic effects

The following table indicates where special attention is to be given to dynamic effects and the countermeasures required to reduce them. Where installations incorporate PTO arrangements further investigation is required and Winterthur Gas & Diesel Ltd. should be contacted.

External mass moments

| Number of cylinders | 2nd order compensator |
|---------------------|---|
| 5 | balancing countermeasure is likely needed |
| 6 | balancing countermeasure is likely needed |

Lateral and longitudinal rocking

| Number of cylinders | Lateral stays | Longitudinal stays |
|---------------------|---------------|---------------------|
| 5 | A | C / A ¹⁾ |
| 6 | B | C |

Remarks :

- 1) For installations having the main torsional critical above nominal speed (installations with increased shaft diameters).

A: The countermeasure indicated is needed

B: The countermeasure indicated may be needed and provision for the corresponding countermeasure is recommended.

C: The countermeasure indicated is usually not needed.

Torsional & Axial vibrations of the shafting

| Number of cylinders | Torsional vibrations | Axial vibrations |
|---------------------|---|--|
| 5 - 6 | Detailed calculations have to be carried out for every installation, countermeasures to be selected accordingly (shaft diameters, critical or barred speed range, flywheel, tuning wheel, TV damper). | An integrated axial damper is fitted as standard to reduce the axial vibration in the crankshaft. However, the effect of the coupled axial vibration to the propulsion shafting components should be checked by calculation. |