

ANSYS Class3 Error Report**ERROR NO:**

2013-15

Keywords:

PIPE ELEMENT

MODE SUPERPOSITION

PRESSURE LOAD

Description of Error:

In a mode-superposition analysis, the strains and stresses calculated for pipe elements (PIPE16, PIPE17, PIPE18, PIPE20, PIPE59, PIPE60, PIPE288 and PIPE289) are incorrect when:

- internal or external pressure load is applied on these elements (SFE command, faces 1 2 and 3 for PIPE288 and 289, faces 1 and 5 for all other elements)
- modal element results are combined to calculate the mode-superposition element results (MSUPkey = YES on the MXPAND command (default))

Typical GUI Path(s):**Other Comments:**

Other mode-superposition results are correct: element nodal forces, reaction forces,...

First Incorrect Version:

Release 12.0

Corrected In:

Release 15.0

Suggested User Action For Running on Uncorrected Version:

To obtain correct strain and stress results, the element results need to be calculated during the mode-superposition analysis expansion pass. Specify MSUPkey = NO (MXPAND command) during the modal analysis so that the modal element results are not available during the expansion pass. In WB Mechanical:

- Harmonic Response (Linked To Modal) > Details of "Analysis Settings" > Output Controls > Expand Results From > Harmonic Solution
- Transient Response (Linked To Modal) > Details of "Analysis Settings" > Output Controls > Expand Results From > Transient Solution

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