# **NON-PROPRIETARY CALCULATIONS**

Book 3 of 8

Attachments to PG&E Letter DIL-01-004 Dated December 21, 2001

Sheet 1 of 205



Appendix FC-2 to Calculation PGE-009-CALC-003

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Originator: S. C. Tumminelli Date: November 30, 2001

## **Appendix FC-2**

## Pad Internal Forces – Soft Rock with Nu = 0.23

This Appendix presents internal force data for the pad for load cases 1 through 3 for the soft rock model with Nu = 0.23. These are HE(1) N, N45W and W. The input file is provided followed by the output file.

### **Appendix Contents**

ANSYS input file for pad internal forces	sheet 2
ANSYS output file for pad internal forces:	sheet 47
Load Case 1 HE(1) N	sheet 48
Load Case 2 HE(1) N 45 W	sheet 100
Load Case 3 HE(1) W	sheet 152



Appendix FC-2 to Calculation PGE-009-CALC-003

Below is the ANSYS input file that scans the database and provides pad internal forces for the soft rock model with Nu =0.23.

/com, /com, This routine processes load results data for the /com, evaluation of pad internal forces and moments /com Soft Rock Load Step Results /com, /com /output, padintforcess9, out /com /com /com /file,dcslabs9 resume /HEADER, ON, OFF, OFF, OFF, ON, OFF /post1 eall nall /com set,1 /COM /COM SECTION THE PAD IN TO 4 NORTH-SOUTH Z-DIRECTION STRIPS /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip Z direction x = -102 to 102 Lines A to B /com nsel,r,loc,x,-102.1,102.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel,r,loc,z,221.9,222.1 spoint,,0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com

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Appendix FC-2 to Calculation PGE-009-CALC-003

nsel, r, loc, z, -1038.1, 162.1 enode,1 nsel,r,loc,z,161.9,162.1 spoint,,0,-45.0,162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel,r,loc,z,-1038.1,102.1 enode,1 nsel,r,loc,z,101.9,102.1 spoint,,0,-45.0,102.0 fsum nelem /com /com Internal forces at Z = -102.0 LINE 7/com nsel, r, loc, z, -1038.1, -101.9 enode,1 nsel, r, loc, z, -101.9, -102.1 spoint,,0,-45.0,-102.0 fsum nelem /com Internal forces at Z = -306.0 LINE 6 /com /com nsel, r, loc, z, -1038.1, -305.9 enode,1 nsel,r,loc,z,-305.9,-306.1 spoint, 0, -45.0, -306.0 fsum nelem /com Internal forces at Z = -510.0 LINE 5 /com /com nsel,r,loc,z,-1038.1,-509.9 enode,1 nsel,r,loc,z,-509.9,-510.1 spoint,,0,-45.0,-510.0 fsum nelem /com Internal forces at Z = -714.0 LINE 4 /com /com nsel,r,loc,z,-1038.1,-713.9 enode,1 nsel, r, loc, z, -713.9, -714.1 spoint,,0,-45.0,-714.0 fsum nelem /com Internal forces at Z = -918.0 LINE 3 /com

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SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

/com nsel, r, loc, z, -1038.1, -917.9 enode,1 nsel,r,loc,z,-917.9,-918.1 spoint,,0,-45.0,-918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2/com nsel, r, loc, z, -1038.1, -977.9 enode,1 nsel,r,loc,z,-977.9,-978.1 spoint,,0,-45.0,-978.0 fsum nelem /com /com Internal forces at Z = -1038.0 LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,0,-45.0,-1038.0 fsum /com next strip x = 102 to 306 Lines B to C /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip Z direction /com nsel,r,loc,x,101.9,306.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel,r,loc,z,221.9,222.1 spoint,,204.0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com nsel,r,loc,z,-1038.1,162.1 enode,1 nsel,r,loc,z,161.9,162.1 spoint,,204.0,-45.0,162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel,r,loc,z,-1038.1,102.1

Appendix FC-2 to Calculation PGE-009-CALC-003

enode,1 nsel,r,loc,z,101.9,102.1 spoint,,204.0,-45.0,102.0 fsum nelem /com Internal forces at Z = -102.0 LINE 7/com /com nsel, r, loc, z, -1038.1, -101.9 enode,1 nsel,r,loc,z,-101.9,-102.1 spoint,,204.0,-45.0,-102.0 fsum nelem /com Internal forces at Z = -306.0 LINE 6/com /com nsel,r,loc,z,-1038.1,-305.9 enode,1 nsel,r,loc,z,-305.9,-306.1 spoint,,204.0,-45.0,-306.0 fsum nelem /com Internal forces at Z = -510.0 LINE 5/com /com nsel,r,loc,z,-1038.1,-509.9 enode,1 nsel,r,loc,z,-509.9,-510.1 spoint,,204.0,-45.0,-510.0 fsum nelem /com Internal forces at Z = -714.0 LINE 4 /com /com nsel, r, loc, z, -1038.1, -713.9 enode,1 nsel,r,loc,z,-713.9,-714.1 spoint,,204.0,-45.0,-714.0 fsum nelem /com Internal forces at Z = -918.0 LINE 3/com /com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel,r,loc,z,-917.9,-918.1 spoint,,204.0,-45.0,-918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2 /com

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#### Appendix FC-2 to Calculation PGE-009-CALC-003

nsel,r,loc,z,-1038.1,-977.9 enode,1 nsel,r,loc,z,-977.9,-978.1 spoint, 204.0, -45.0, -978.0 fsum nelem /com /com Internal forces at Z = -1038.0 LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,204.0,-45.0,-1038.0 fsum /com next strip x = 306 to 510 Lines C to D /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip Z direction /com nsel,r,loc,x,305.9,510.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel, r, loc, z, 221.9, 222.1 spoint,,408.0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com nsel,r,loc,z,-1038.1,162.1 enode,1 nsel,r,loc,z,161.9,162.1 spoint,,408.0,-45.0,162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel,r,loc,z,-1038.1,102.1 enode,1 nsel,r,loc,z,101.9,102.1 spoint,,408.0,-45.0,102.0 fsum nelem /com /com Internal forces at Z = -102.0 LINE 7 /com nsel, r, loc, z, -1038.1, -101.9 enode,1

Appendix FC-2 to Calculation PGE-009-CALC-003

```
nsel, r, loc, z, -101.9, -102.1
spoint,,408.0,-45.0,-102.0
fsum
nelem
/com
/com
     Internal forces at Z = -306.0 LINE 6
/com
nsel, r, loc, z, -1038.1, -305.9
enode,1
nsel,r,loc,z,-305.9,-306.1
spoint,,408.0,-45.0,-306.0
fsum
nelem
/com
     Internal forces at Z = -510.0 LINE 5
/com
/com
nsel,r,loc,z,-1038.1,-509.9
enode,1
nsel,r,loc,z,-509.9,-510.1
spoint,,408.0,-45.0,-510.0
fsum
nelem
/com
/com Internal forces at Z = -714.0 LINE 4
/com
nsel,r,loc,z,-1038.1,-713.9
enode,1
nsel, r, loc, z, -713.9, -714.1
spoint,,408.0,-45.0,-714.0
fsum
nelem
/com
/com
     Internal forces at Z = -918.0 LINE 3
/com
nsel,r,loc,z,-1038.1,-917.9
enode,1
nsel, r, loc, z, -917.9, -918.1
spoint,,408.0,-45.0,-918.0
fsum
nelem
/com
/com Internal forces at Z = -978.0 \text{ LINE } 2
/com
nsel,r,loc,z,-1038.1,-977.9
enode,1
nsel,r,loc,z,-977.9,-978.1
spoint,,408.0,-45.0,-978.0
fsum
nelem
/com
/com
     Internal forces at Z = -1038.0 LINE 1
/com
nsel, r, loc, z, -1037.9, -1038.1
```

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## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

spoint,,408.0,-45.0,-1038.0 fsum /com next strip x = 510 to 714 Lines D to E /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip Z direction /com nsel,r,loc,x,509.9,714.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel,r,loc,z,221.9,222.1 spoint,,612.0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com nsel,r,loc,z,-1038.1,162.1 enode,1 nsel, r, loc, z, 161.9, 162.1 spoint,,612.0,-45.0,162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel,r,loc,z,-1038.1,102.1 enode,1 nsel,r,loc,z,101.9,102.1 spoint,,612.0,-45.0,102.0 fsum nelem /com /com Internal forces at Z = -102.0 LINE 7 /com nsel,r,loc,z,-1038.1,-101.9 enode,1 nsel,r,loc,z,-101.9,-102.1 spoint,,612.0,-45.0,-102.0 fsum nelem /com /com Internal forces at Z = -306.0 LINE 6 /com nsel,r,loc,z,-1038.1,-305.9 enode,1 nsel, r, loc, z, -305.9, -306.1

spoint,,612.0,-45.0,-306.0

Appendix FC-2 to Calculation PGE-009-CALC-003

fsum nelem /com /com Internal forces at Z = -510.0 LINE 5/com nsel, r, loc, z, -1038.1, -509.9 enode,1 nsel, r, loc, z, -509.9, -510.1 spoint,,612.0,-45.0,-510.0 fsum nelem /com /com Internal forces at Z = -714.0 LINE 4 /com nsel,r,loc,z,-1038.1,-713.9 enode,1 nsel, r, loc, z, -713.9, -714.1 spoint,,612.0,-45.0,-714.0 fsum nelem /com /com Internal forces at Z = -918.0 LINE 3 /com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel, r, loc, z, -917.9, -918.1 spoint,,612.0,-45.0,-918.0 fsum nelem /com Internal forces at Z = -978.0 LINE 2 /com /com nsel, r, loc, z, -1038.1, -977.9 enode,1 nsel, r, loc, z, -977.9, -978.1 spoint,,612.0,-45.0,-978.0 fsum nelem /com /com Internal forces at Z = -1038.0 LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,612.0,-45.0,-1038.0 fsum /com /COM SECTION THE PAD IN TO 7 EAST-WEST X-DIRECTION STRIPS /COM /com Select all nodes in pad only /com esel,type,1

#### Sheet 10 of 205

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## ENERCON SERVICES, INC.

Appendix FC-2 to Calculation PGE-009-CALC-003

nelem /com /com select strip x direction z = -1038 to -918 Lines 1 to 3 /com nsel,r,loc,z,-1038.1,-917.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-978.0 fsum nelem /com /com next strip z = -918 to -714 Lines 3 to 4 /com /com Select all nodes in pad only /com /com

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Appendix FC-2 to Calculation PGE-009-CALC-003

esel,type,1 nelem /com /com select strip x direction z = -918 to -714/com nsel, r, loc, z, -918.1, -713.9 enode,1 /com Internal forces at x = 714.0 LINE E /com /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-816.0 fsum nelem /com /com next strip z = -714 to -510 Lines 4 to 5 /com /com /com Select all nodes in pad only

Appendix FC-2 to Calculation PGE-009-CALC-003

/com esel,type,1 nelem /com /com select strip x direction z = -714 to -510/com nsel, r, loc, z, -714.1, -509.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-612.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,-612.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-612.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-612.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A/com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-612.0 fsum nelem /com /com next strip z = -510 to -306 Lines 5 to 6 /com /com

Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com Select all nodes in pad only
/com
esel, type, 1
nelem
/com
/com select strip x direction z = -510 to -306
/com
nsel, r, loc, z, -510.1, -305.9
enode,1
/com
/com
     Internal forces at x = 714.0 LINE E
/com
nsel,r,loc,x,713.9,714.1
spoint,,714.0,-45.0,-408.0
fsum
nelem
/com
/com Internal forces at x = 510.0 LINE D
/com
nsel,r,loc,x,-102.1,510.1
enode,1
nsel,r,loc,x,509.9,510.1
spoint,,510.0,-45.0,-408.0
fsum
nelem
/com
/com Internal forces at x = 306.0 LINE C
/com
nsel,r,loc,x,-102.1,306.1
enode,1
nsel, r, loc, x, 305.9, 306.1
spoint,,306.0,-45.0,-408.0
fsum
nelem
/com
/com
     Internal forces at x = 102.0 LINE B
/com
nsel,r,loc,x,-102.1,102.1
enode,1
nsel, r, loc, x, 101.9, 102.1
spoint,,102.0,-45.0,-408.0
fsum
nelem
/com
/com Internal forces at x = -102.0 LINE A
/com
nsel,r,loc,x,-102.1,-101.9
spoint,,-102.0,-45.0,-408.0
fsum
nelem
/com
/com next strip z = -306 to -102 Lines 6 to 7
/com
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## ENERCON SERVICES, INC.

Appendix FC-2 to Calculation PGE-009-CALC-003

/com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip x direction z = -306 to -102/com nsel,r,loc,z,-306.1,-101.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-204.0 fsum nelem /com /com next strip z = -102 to 102 Lines 7 to 8

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Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com
/com
/com Select all nodes in pad only
/com
esel,type,1
nelem
/com
/com select strip x direction z = -102 to 102
/com
nsel,r,loc,z,-102.1,102.1
enode,1
/com
/com Internal forces at x = 714.0 LINE E
/com
nsel,r,loc,x,713.9,714.1
spoint,,714.0,-45.0,0.0
fsum
nelem
/com
/com Internal forces at x = 510.0 LINE D
/com
nsel,r,loc,x,-102.1,510.1
enode,1
nsel,r,loc,x,509.9,510.1
spoint,,510.0,-45.0,0.0
fsum
nelem
/com
/com Internal forces at x = 306.0 LINE C
/com
nsel,r,loc,x,-102.1,306.1
enode,1
nsel,r,loc,x,305.9,306.1
spoint,,306.0,-45.0,0.0
fsum
nelem
/com
/com Internal forces at x = 102.0 LINE B
/com
nsel,r,loc,x,-102.1,102.1
enode,1
nsel,r,loc,x,101.9,102.1
spoint,,102.0,-45.0,0.0
fsum
nelem
/com
/com
     Internal forces at x = -102.0 LINE A
/com
nsel, r, loc, x, -102.1, -101.9
spoint,,-102.0,-45.0,0.0
fsum
nelem
/com
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## ENERCON SERVICES, INC. Appendix

Appendix FC-2 to Calculation PGE-009-CALC-003

/com next strip z = 102 to 222 Lines 8 to 10 /com /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip x direction z = 102 to 222 /com nsel,r,loc,z,101.9,222.1 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel, r, loc, x, 509.9, 510.1 spoint,,510.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,162.0 fsum eall

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Sec. 1

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

nall set,2 /COM /COM SECTION THE PAD IN TO 4 NORTH-SOUTH Z-DIRECTION STRIPS /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip Z direction x = -102 to 102 Lines A to B /com nsel, r, loc, x, -102.1, 102.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel, r, loc, z, 221.9, 222.1 spoint,,0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com nsel, r, loc, z, -1038.1, 162.1 enode,1 nsel,r,loc,z,161.9,162.1 spoint,,0,-45.0,162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel,r,loc,z,-1038.1,102.1 enode,1 nsel,r,loc,z,101.9,102.1 spoint,,0,-45.0,102.0 fsum nelem /com /com Internal forces at Z = -102.0 LINE 7/com nsel,r,loc,z,-1038.1,-101.9 enode,1 nsel,r,loc,z,-101.9,-102.1 spoint,,0,-45.0,-102.0 fsum nelem /com /com Internal forces at Z = -306.0 LINE 6

Appendix FC-2 to Calculation PGE-009-CALC-003

/com nsel,r,loc,z,-1038.1,-305.9 enode,1 nsel,r,loc,z,-305.9,-306.1 spoint,,0,-45.0,-306.0 fsum nelem /com /com Internal forces at Z = -510.0 LINE 5 /com nsel,r,loc,z,-1038.1,-509.9 enode,1 nsel,r,loc,z,-509.9,-510.1 spoint,,0,-45.0,-510.0 fsum . nelem /com /com Internal forces at Z = -714.0 LINE 4 /com nsel,r,loc,z,-1038.1,-713.9 enode,1 nsel,r,loc,z,-713.9,-714.1 spoint, ,0, -45.0, -714.0 fsum nelem /com /com Internal forces at Z = -918.0 LINE 3 /com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel,r,loc,z,-917.9,-918.1 spoint,,0,-45.0,-918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2 /com nsel,r,loc,z,-1038.1,-977.9 enode,1 nsel, r, loc, z, -977.9, -978.1 spoint,,0,-45.0,-978.0 fsum nelem /com /com Internal forces at Z = -1038.0LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,0,-45.0,-1038.0 fsum /com next strip x = 102 to 306 Lines B to C /com /com Select all nodes in pad only /com

#### Appendix FC-2 to Calculation PGE-009-CALC-003

esel,type,1 nelem /com /com select strip Z direction /com nsel,r,loc,x,101.9,306.1 enode,1 /com Internal forces at Z = 222.0 LINE 10 /com /com nsel,r,loc,z,221.9,222.1 spoint,,204.0,-45.0,222.0 fsum nelem /com Internal forces at Z = 162.0 LINE 9 /com /com nsel, r, loc, z, -1038.1, 162.1 enode,1 nsel,r,loc,z,161.9,162.1 spoint, 204.0, -45.0, 162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel, r, loc, z, -1038.1, 102.1 enode,1 nsel, r, loc, z, 101.9, 102.1 spoint,,204.0,-45.0,102.0 fsum nelem /com /com Internal forces at Z = -102.0 LINE 7/com nsel, r, loc, z, -1038.1, -101.9 enode,1 nsel,r,loc,z,-101.9,-102.1 spoint,,204.0,-45.0,-102.0 fsum nelem /com Internal forces at Z = -306.0 LINE 6 /com /com nsel,r,loc,z,-1038.1,-305.9 enode,1 nsel, r, loc, z, -305.9, -306.1 spoint,,204.0,-45.0,-306.0 fsum nelem /com Internal forces at Z = -510.0 LINE 5/com /com

Appendix FC-2 to Calculation PGE-009-CALC-003

nsel,r,loc,z,-1038.1,-509.9 enode,1 nsel,r,loc,z,-509.9,-510.1 spoint,,204.0,-45.0,-510.0 fsum nelem /com /com Internal forces at Z = -714.0 LINE 4 /com nsel,r,loc,z,-1038.1,-713.9 enode,1 nsel,r,loc,z,-713.9,-714.1 spoint,,204.0,-45.0,-714.0 fsum nelem /com /com Internal forces at Z = -918.0 LINE 3/com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel,r,loc,z,-917.9,-918.1 spoint, 204.0, -45.0, -918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2 /com nsel,r,loc,z,-1038.1,-977.9 enode,1 nsel,r,loc,z,-977.9,-978.1 spoint,,204.0,-45.0,-978.0 fsum nelem /com /com Internal forces at Z = -1038.0 LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,204.0,-45.0,-1038.0 fsum /com next strip x = 306 to 510 Lines C to D /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip Z direction /com nsel,r,loc,x,305.9,510.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com

Appendix FC-2 to Calculation PGE-009-CALC-003

```
nsel,r,loc,z,221.9,222.1
spoint,,408.0,-45.0,222.0
fsum
nelem
/com
/com
      Internal forces at Z = 162.0 LINE 9
/com
nsel,r,loc,z,-1038.1,162.1
enode,1
nsel, r, loc, z, 161.9, 162.1
spoint,,408.0,-45.0,162.0
fsum
nelem
/com
/com Internal forces at Z = 102.0 LINE 8
/com
nsel, r, loc, z, -1038.1, 102.1
enode,1
nsel,r,loc,z,101.9,102.1
spoint,,408.0,-45.0,102.0
fsum
nelem
/com
/com Internal forces at Z = -102.0 \text{ LINE } 7
/com
nsel, r, loc, z, -1038.1, -101.9
enode,1
nsel, r, loc, z, -101.9, -102.1
spoint,,408.0,-45.0,-102.0
fsum
nelem
/com
/com Internal forces at Z = -306.0 LINE 6
/com
nsel, r, loc, z, -1038.1, -305.9
enode,1
nsel,r,loc,z,-305.9,-306.1
spoint,,408.0,-45.0,-306.0
fsum
nelem
/com
/com
     Internal forces at Z = -510.0 \text{ LINE } 5
/com
nsel,r,loc,z,-1038.1,-509.9
enode,1
nsel,r,loc,z,-509.9,-510.1
spoint,,408.0,-45.0,-510.0
fsum
nelem
/com
/com Internal forces at Z = -714.0 LINE 4
/com
nsel, r, loc, z, -1038.1, -713.9
```

Appendix FC-2 to Calculation PGE-009-CALC-003

enode,1 nsel,r,loc,z,-713.9,-714.1 spoint,,408.0,-45.0,-714.0 fsum nelem /com /com Internal forces at Z = -918.0 LINE 3/com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel, r, loc, z, -917.9, -918.1 spoint,,408.0,-45.0,-918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2 /com nsel,r,loc,z,-1038.1,-977.9 enode,1 nsel,r,loc,z,-977.9,-978.1 spoint,,408.0,-45.0,-978.0 fsum nelem /com /com Internal forces at Z = -1038.0 LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,408.0,-45.0,-1038.0 fsum /com next strip x = 510 to 714 Lines D to E /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip Z direction /com nsel,r,loc,x,509.9,714.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel,r,loc,z,221.9,222.1 spoint,,612.0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com nsel,r,loc,z,-1038.1,162.1 enode,1 nsel,r,loc,z,161.9,162.1

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

```
spoint,,612.0,-45.0,162.0
fsum
nelem
/com
/com
     Internal forces at Z = 102.0 LINE 8
/com
nsel, r, loc, z, -1038.1, 102.1
enode,1
nsel,r,loc,z,101.9,102.1
spoint,,612.0,-45.0,102.0
fsum
nelem
/com
     Internal forces at Z = -102.0 \text{ LINE } 7
/com
/com
nsel,r,loc,z,-1038.1,-101.9
enode,1
nsel,r,loc,z,-101.9,-102.1
spoint,,612.0,-45.0,-102.0
fsum
nelem
/com
     Internal forces at Z = -306.0 LINE 6
/com
/com
nsel, r, loc, z, -1038.1, -305.9
enode,1
nsel, r, loc, z, -305.9, -306.1
spoint,,612.0,-45.0,-306.0
fsum
nelem
/com
     Internal forces at Z = -510.0 \text{ LINE } 5
/com
/com
nsel,r,loc,z,-1038.1,-509.9
enode,1
nsel,r,loc,z,-509.9,-510.1
spoint,,612.0,-45.0,-510.0
fsum
nelem
/com
     Internal forces at Z = -714.0 LINE 4
/com
/com
nsel,r,loc,z,-1038.1,-713.9
enode,1
nsel, r, loc, z, -713.9, -714.1
spoint,,612.0,-45.0,-714.0
fsum
nelem
/com
/com Internal forces at Z = -918.0 LINE 3
/com
nsel,r,loc,z,-1038.1,-917.9
enode,1
```

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## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

```
nsel, r, loc, z, -917.9, -918.1
spoint,,612.0,-45.0,-918.0
fsum
nelem
/com
/com Internal forces at Z = -978.0 LINE 2
/com
nsel, r, loc, z, -1038.1, -977.9
enode,1
nsel, r, loc, z, -977.9, -978.1
spoint,,612.0,-45.0,-978.0
fsum
nelem
/com
/com Internal forces at Z = -1038.0
                                    LINE 1
/com
nsel, r, loc, z, -1037.9, -1038.1
spoint,,612.0,-45.0,-1038.0
fsum
/com
/COM SECTION THE PAD IN TO 7 EAST-WEST X-DIRECTION STRIPS
/COM
/com Select all nodes in pad only
/com
esel, type, 1
nelem
/com
/com select strip x direction z = -1038 to -918 Lines 1 to 3
/com
nsel,r,loc,z,-1038.1,-917.9
enode,1
/com
/com
    Internal forces at x = 714.0 LINE E
/com
nsel,r,loc,x,713.9,714.1
spoint,,714.0,-45.0,-978.0
fsum
nelem
/com
/com Internal forces at x = 510.0 LINE D
/com
nsel,r,loc,x,-102.1,510.1
enode,1
nsel,r,loc,x,509.9,510.1
spoint,,510.0,-45.0,-978.0
fsum
nelem
/com
/com Internal forces at x = 306.0 LINE C
/com
nsel,r,loc,x,-102.1,306.1
```

. .

Appendix FC-2 to Calculation PGE-009-CALC-003

enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-978.0 fsum nelem /com Internal forces at x = 102.0 LINE B /com /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-978.0 fsum nelem /com Internal forces at x = -102.0 LINE A /com /com nsel, r, loc, x, -102.1, -101.9 spoint,,-102.0,-45.0,-978.0 fsum nelem /com /com next strip z = -918 to -714 Lines 3 to 4 /com /com /com Select all nodes in pad only /com esel,type,1 nelem /com select strip x direction z = -918 to -714/com /com nsel, r, loc, z, -918.1, -713.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel, r, loc, x, -102.1, 510.1 enode,1 nsel, r, loc, x, 509.9, 510.1 spoint,,510.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com

#### Sheet 26 of 205

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

nsel,r,loc,x,-102.1,306.1 enode,1 nsel, r, loc, x, 305.9, 306.1 spoint,,306.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-816.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-816.0 fsum nelem /com /com next strip z = -714 to -510 Lines 4 to 5 /com /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip x direction z = -714 to -510 /com nsel, r, loc, z, -714.1, -509.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel, r, loc, x, 713.9, 714.1 spoint,,714.0,-45.0,-612.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel, r, loc, x, 509.9, 510.1 spoint,,510.0,-45.0,-612.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C

Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com
nsel,r,loc,x,-102.1,306.1
enode,1
nsel,r,loc,x,305.9,306.1
spoint,,306.0,-45.0,-612.0
fsum
nelem
/com
/com Internal forces at x = 102.0 LINE B
/com
nsel,r,loc,x,-102.1,102.1
enode,1
nsel,r,loc,x,101.9,102.1
spoint,,102.0,-45.0,-612.0
fsum
nelem
/com
/com
     Internal forces at x = -102.0 LINE A
/com
nsel, r, loc, x, -102.1, -101.9
spoint,,-102.0,-45.0,-612.0
fsum
nelem
/com
/com next strip z = -510 to -306 Lines 5 to 6
/com
/com
/com Select all nodes in pad only
/com
esel,type,1
nelem
/com
/com select strip x direction z = -510 to -306
/com
nsel,r,loc,z,-510.1,-305.9
enode,1
/com
/com Internal forces at x = 714.0 LINE E
/com
nsel,r,loc,x,713.9,714.1
spoint,,714.0,-45.0,-408.0
fsum
nelem
/com
/com Internal forces at x = 510.0 LINE D
/com
nsel, r, loc, x, -102.1, 510.1
enode,1
nsel,r,loc,x,509.9,510.1
spoint, 510.0, -45.0, -408.0
fsum
nelem
/com
```

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

/com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode, 1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-408.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-408.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A/com nsel, r, loc, x, -102.1, -101.9 spoint,,-102.0,-45.0,-408.0 fsum nelem /com /com next strip z = -306 to -102 Lines 6 to 7 /com /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip x direction z = -306 to -102/com nsel,r,loc,z,-306.1,-101.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,-204.0 fsum nelem

Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com
     Internal forces at x = 306.0 LINE C
/com
/com
nsel,r,loc,x,-102.1,306.1
enode,1
nsel,r,loc,x,305.9,306.1
spoint,,306.0,-45.0,-204.0
fsum
nelem
/com
/com Internal forces at x = 102.0 LINE B
/com
nsel,r,loc,x,-102.1,102.1
enode,1
nsel,r,loc,x,101.9,102.1
spoint,,102.0,-45.0,-204.0
fsum
nelem
/com
/com
     Internal forces at x = -102.0 LINE A
/com
nsel,r,loc,x,-102.1,-101.9
spoint,,-102.0,-45.0,-204.0
fsum
nelem
/com
/com next strip z = -102 to 102 Lines 7 to 8
/com
/com
/com Select all nodes in pad only
/com
esel,type,1
nelem
/com
/com select strip x direction z = -102 to 102
/com
nsel,r,loc,z,-102.1,102.1
enode,1
/com
/com Internal forces at x = 714.0 LINE E
/com
nsel,r,loc,x,713.9,714.1
spoint,,714.0,-45.0,0.0
fsum
nelem
/com
     Internal forces at x = 510.0 LINE D
/com
/com
nsel,r,loc,x,-102.1,510.1
enode,1
nsel,r,loc,x,509.9,510.1
spoint,,510.0,-45.0,0.0
fsum
```



Appendix FC-2 to Calculation PGE-009-CALC-003

nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,0.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel, r, loc, x, 101.9, 102.1 spoint,,102.0,-45.0,0.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,0.0 fsum nelem /com /com next strip z = 102 to 222 Lines 8 to 10 /com /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip x direction z = 102 to 222 /com nsel,r,loc,z,101.9,222.1 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,162.0

Appendix FC-2 to Calculation PGE-009-CALC-003

fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel, r, loc, x, -102.1, 306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,162.0 fsum eall nall /com /com set,3 /COM /COM SECTION THE PAD IN TO 4 NORTH-SOUTH Z-DIRECTION STRIPS /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip Z direction x = -102 to 102 Lines A to B /com nsel,r,loc,x,-102.1,102.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel,r,loc,z,221.9,222.1 spoint,,0,-45.0,222.0 fsum nelem

### ENERCON SERVICES, INC. Appendix EC-2 to Cal

Appendix FC-2 to Calculation PGE-009-CALC-003

/com /com Internal forces at Z = 162.0 LINE 9 /com nsel,r,loc,z,-1038.1,162.1 enode, 1 nsel, r, loc, z, 161.9, 162.1 spoint,,0,-45.0,162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel,r,loc,z,-1038.1,102.1 enode,1 nsel,r,loc,z,101.9,102.1 spoint,,0,-45.0,102.0 fsum nelem /com /com Internal forces at Z = -102.0 LINE 7/com nsel,r,loc,z,-1038.1,-101.9 enode,1 nsel,r,loc,z,-101.9,-102.1 spoint,,0,-45.0,-102.0 fsum nelem /com /com Internal forces at Z = -306.0 LINE 6 /com nsel,r,loc,z,-1038.1,-305.9 enode,1 nsel,r,loc,z,-305.9,-306.1 spoint,,0,-45.0,-306.0 fsum nelem /com /com Internal forces at Z = -510.0 LINE 5 /com nsel,r,loc,z,-1038.1,-509.9 enode,1 nsel,r,loc,z,-509.9,-510.1 spoint,,0,-45.0,-510.0 fsum nelem /com /com Internal forces at Z = -714.0 LINE 4 /com nsel, r, loc, z, -1038.1, -713.9 enode,1 nsel,r,loc,z,-713.9,-714.1 spoint,,0,-45.0,-714.0 fsum

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. The second s Appendix FC-2 to Calculation PGE-009-CALC-003

nelem /com Internal forces at Z = -918.0 LINE 3/com /com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel,r,loc,z,-917.9,-918.1 spoint,,0,-45.0,-918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2 /com nsel,r,loc,z,-1038.1,-977.9 enode,1 nsel,r,loc,z,-977.9,-978.1 spoint,,0,-45.0,-978.0 fsum nelem /com /com Internal forces at Z = -1038.0 LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,0,-45.0,-1038.0 fsum /com next strip x = 102 to 306 Lines B to C /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip Z direction /com nsel,r,loc,x,101.9,306.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel,r,loc,z,221.9,222.1 spoint,,204.0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com nsel, r, loc, z, -1038.1, 162.1 enode,1 nsel,r,loc,z,161.9,162.1 spoint,,204.0,-45.0,162.0 fsum nelem /com

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com Internal forces at Z = 102.0 LINE 8
/com
nsel,r,loc,z,-1038.1,102.1
enode,1
nsel,r,loc,z,101.9,102.1
spoint,,204.0,-45.0,102.0
fsum
nelem
/com
/com Internal forces at Z = -102.0 \text{ LINE } 7
/com
nsel,r,loc,z,-1038.1,-101.9
enode,1
nsel,r,loc,z,-101.9,-102.1
spoint,,204.0,-45.0,-102.0
fsum
nelem
/com
/com Internal forces at Z = -306.0 LINE 6
/com
nsel,r,loc,z,-1038.1,-305.9
enode,1
nsel,r,loc,z,-305.9,-306.1
spoint,,204.0,-45.0,-306.0
fsum
nelem
/com
/com Internal forces at Z = -510.0 \text{ LINE } 5
/com
nsel,r,loc,z,-1038.1,-509.9
enode,1
nsel,r,loc,z,-509.9,-510.1
spoint,,204.0,-45.0,-510.0
fsum
nelem
/com
/com Internal forces at Z = -714.0 LINE 4
/com
nsel,r,loc,z,-1038.1,-713.9
enode,1
nsel,r,loc,z,-713.9,-714.1
spoint,,204.0,-45.0,-714.0
fsum
nelem
/com
/com Internal forces at Z = -918.0 \text{ LINE } 3
/com
nsel,r,loc,z,-1038.1,-917.9
enode,1
nsel,r,loc,z,-917.9,-918.1
spoint,,204.0,-45.0,-918.0
fsum
nelem
```

Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com
/com
     Internal forces at Z = -978.0 LINE 2
/com
nsel, r, loc, z, -1038.1, -977.9
enode,1
nsel,r,loc,z,-977.9,-978.1
spoint,,204.0,-45.0,-978.0
fsum
nelem
/com
/com Internal forces at Z = -1038.0
                                           LINE 1
/com
nsel,r,loc,z,-1037.9,-1038.1
spoint,,204.0,-45.0,-1038.0
fsum
/com next strip x = 306 to 510 Lines C to D
/com
/com Select all nodes in pad only
/com
esel,type,1
nelem
/com
/com select strip Z direction
/com
nsel, r, loc, x, 305.9, 510.1
enode,1
/com
/com Internal forces at Z = 222.0 LINE 10
/com
nsel,r,loc,z,221.9,222.1
spoint,,408.0,-45.0,222.0
fsum
nelem
/com
/com
     Internal forces at Z = 162.0 LINE 9
/com
nsel, r, loc, z, -1038.1, 162.1
enode,1
nsel,r,loc,z,161.9,162.1
spoint,,408.0,-45.0,162.0
fsum
nelem
/com
/com Internal forces at Z = 102.0 LINE 8
/com
nsel,r,loc,z,-1038.1,102.1
enode,1
nsel, r, loc, z, 101.9, 102.1
spoint,,408.0,-45.0,102.0
fsum
nelem
/com
/com Internal forces at Z = -102.0 LINE 7
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## ENERCON SERVICES, INC.

Appendix FC-2 to Calculation PGE-009-CALC-003

/com nsel,r,loc,z,-1038.1,-101.9 enode,1 nsel,r,loc,z,-101.9,-102.1 spoint,,408.0,-45.0,-102.0 fsum nelem /com /com Internal forces at Z = -306.0 LINE 6 /com nsel,r,loc,z,-1038.1,-305.9 enode,1 nsel,r,loc,z,-305.9,-306.1 spoint,,408.0,-45.0,-306.0 fsum nelem /com /com Internal forces at Z = -510.0 LINE 5 /com nsel,r,loc,z,-1038.1,-509.9 enode,1 nsel,r,loc,z,-509.9,-510.1 spoint,,408.0,-45.0,-510.0 fsum nelem /com /com Internal forces at Z = -714.0 LINE 4/com nsel,r,loc,z,-1038.1,-713.9 enode,1 nsel,r,loc,z,-713.9,-714.1 spoint,,408.0,-45.0,-714.0 fsum nelem /com /com Internal forces at Z = -918.0 LINE 3/com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel,r,loc,z,-917.9,-918.1 spoint,,408.0,-45.0,-918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2 /com nsel,r,loc,z,-1038.1,-977.9 enode,1 nsel, r, loc, z, -977.9, -978.1 spoint,,408.0,-45.0,-978.0 fsum nelem /com

Appendix FC-2 to Calculation PGE-009-CALC-003

/com Internal forces at Z = -1038.0LINE 1 /com nsel, r, loc, z, -1037.9, -1038.1 spoint,,408.0,-45.0,-1038.0 fsum /com next strip x = 510 to 714 Lines D to E /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip Z direction /com nsel,r,loc,x,509.9,714.1 enode,1 /com /com Internal forces at Z = 222.0 LINE 10 /com nsel, r, loc, z, 221.9, 222.1 spoint,,612.0,-45.0,222.0 fsum nelem /com /com Internal forces at Z = 162.0 LINE 9 /com nsel, r, loc, z, -1038.1, 162.1 enode,1 nsel,r,loc,z,161.9,162.1 spoint,,612.0,-45.0,162.0 fsum nelem /com /com Internal forces at Z = 102.0 LINE 8 /com nsel,r,loc,z,-1038.1,102.1 enode,1 nsel,r,loc,z,101.9,102.1 spoint,,612.0,-45.0,102.0 fsum nelem /com /com Internal forces at Z = -102.0 LINE 7 /com nsel,r,loc,z,-1038.1,-101.9 enode,1 nsel, r, loc, z, -101.9, -102.1 spoint,,612.0,-45.0,-102.0 fsum nelem /com Internal forces at Z = -306.0 LINE 6/com /com

Appendix FC-2 to Calculation PGE-009-CALC-003

nsel,r,loc,z,-1038.1,-305.9 enode,1 nsel, r, loc, z, -305.9, -306.1 spoint,,612.0,-45.0,-306.0 fsum nelem /com /com Internal forces at Z = -510.0 LINE 5/com nsel,r,loc,z,-1038.1,-509.9 enode,1 nsel,r,loc,z,-509.9,-510.1 spoint,,612.0,-45.0,-510.0 fsum nelem /com /com Internal forces at Z = -714.0 LINE 4 /com nsel,r,loc,z,-1038.1,-713.9 enode,1 nsel,r,loc,z,-713.9,-714.1 spoint,,612.0,-45.0,-714.0 fsum nelem /com /com Internal forces at Z = -918.0 LINE 3 /com nsel,r,loc,z,-1038.1,-917.9 enode,1 nsel,r,loc,z,-917.9,-918.1 spoint,,612.0,-45.0,-918.0 fsum nelem /com /com Internal forces at Z = -978.0 LINE 2 /com nsel, r, loc, z, -1038.1, -977.9 enode,1 nsel,r,loc,z,-977.9,-978.1 spoint,,612.0,-45.0,-978.0 fsum nelem /com /com Internal forces at Z = -1038.0 LINE 1 /com nsel,r,loc,z,-1037.9,-1038.1 spoint,,612.0,-45.0,-1038.0 fsum /com /COM SECTION THE PAD IN TO 7 EAST-WEST X-DIRECTION STRIPS /COM

Appendix FC-2 to Calculation PGE-009-CALC-003

/com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip x direction z = -1038 to -918 Lines 1 to 3 /com nsel,r,loc,z,-1038.1,-917.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-978.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-978.0 fsum nelem /com /com next strip z = -918 to -714 Lines 3 to 4 /com

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## ENERCON SERVICES, INC.

Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com
/com Select all nodes in pad only
/com
esel, type, 1
nelem
/com
/com select strip x direction z = -918 to -714
/com
nsel,r,loc,z,-918.1,-713.9
enode,1
/com
/com
     Internal forces at x = 714.0 LINE E
/com
nsel,r,loc,x,713.9,714.1
spoint,,714.0,-45.0,-816.0
fsum
nelem
/com
/com Internal forces at x = 510.0 LINE D
/com
nsel,r,loc,x,-102.1,510.1
enode,1
nsel,r,loc,x,509.9,510.1
spoint,,510.0,-45.0,-816.0
fsum
nelem
/com
/com Internal forces at x = 306.0 LINE C
/com
nsel,r,loc,x,-102.1,306.1
enode,1
nsel,r,loc,x,305.9,306.1
spoint,,306.0,-45.0,-816.0
fsum
nelem
/com
/com Internal forces at x = .102.0 LINE B
/com
nsel,r,loc,x,-102.1,102.1
enode,1
nsel,r,loc,x,101.9,102.1
spoint,,102.0,-45.0,-816.0
fsum
nelem
/com
/com Internal forces at x = -102.0 \text{ LINE A}
/com
nsel,r,loc,x,-102.1,-101.9
spoint,,-102.0,-45.0,-816.0
fsum
nelem
/com
/com next strip z = -714 to -510 Lines 4 to 5
```

Appendix FC-2 to Calculation PGE-009-CALC-003

```
/com
/com
/com Select all nodes in pad only
/com
esel,type,1
nelem
/com
/com select strip x direction z = -714 to -510
/com
nsel,r,loc,z,-714.1,-509.9
enode,1
/com
/com
     Internal forces at x = 714.0 LINE E
/com
nsel,r,loc,x,713.9,714.1
spoint,,714.0,-45.0,-612.0
fsum
nelem
/com
/com Internal forces at x = 510.0 LINE D
/com
nsel,r,loc,x,-102.1,510.1
enode,1
nsel,r,loc,x,509.9,510.1
spoint,,510.0,-45.0,-612.0
fsum
nelem
/com
/com Internal forces at x = 306.0 LINE C
/com
nsel, r, loc, x, -102.1, 306.1
enode,1
nsel,r,loc,x,305.9,306.1
spoint,,306.0,-45.0,-612.0
fsum
nelem
/com
/com Internal forces at x = 102.0 LINE B
/com
nsel,r,loc,x,-102.1,102.1
enode,1
nsel,r,loc,x,101.9,102.1
spoint,,102.0,-45.0,-612.0
fsum
nelem
/com
/com Internal forces at x = -102.0 LINE A
/com
nsel,r,loc,x,-102.1,-101.9
spoint,,-102.0,-45.0,-612.0
fsum
nelem
/com
```

Appendix FC-2 to Calculation PGE-009-CALC-003

/com next strip z = -510 to -306 Lines 5 to 6 /com /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip x direction z = -510 to -306/com nsel,r,loc,z,-510.1,-305.9 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-408.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,-408.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-408.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-408.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A/com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-408.0 fsum nelem

### Appendix FC-2 to Calculation PGE-009-CALC-003

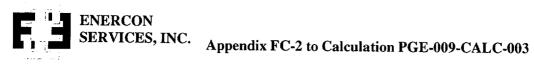
/com /com next strip z = -306 to -102 Lines 6 to 7 /com /com /com Select all nodes in pad only /com esel,type,1 nelem /com select strip x direction z = -306 to -102/com /com nsel, r, loc, z, -306.1, -101.9 enode,1 /com Internal forces at x = 714.0 LINE E /com /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509:9,510.1 spoint,,510.0,-45.0,-204.0 fsum nelem /com Internal forces at x = 306.0 LINE C /com /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel, r, loc, x, -102.1, 102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,-204.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A/com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,-204.0 fsum

Appendix FC-2 to Calculation PGE-009-CALC-003

nelem /com /com next strip z = -102 to 102 Lines 7 to 8 /com /com /com Select all nodes in pad only /com esel, type, 1 nelem /com /com select strip x direction z = -102 to 102 /com nsel,r,loc,z,-102.1,102.1 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,0.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,0.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,0.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,0.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9 spoint,,-102.0,-45.0,0.0

Appendix FC-2 to Calculation PGE-009-CALC-003

fsum nelem /com /com next strip z = 102 to 222 Lines 8 to 10 /com /com /com Select all nodes in pad only /com esel,type,1 nelem /com /com select strip x direction z = 102 to 222 /com nsel,r,loc,z,101.9,222.1 enode,1 /com /com Internal forces at x = 714.0 LINE E /com nsel,r,loc,x,713.9,714.1 spoint,,714.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 510.0 LINE D /com nsel,r,loc,x,-102.1,510.1 enode,1 nsel,r,loc,x,509.9,510.1 spoint,,510.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 306.0 LINE C /com nsel,r,loc,x,-102.1,306.1 enode,1 nsel,r,loc,x,305.9,306.1 spoint,,306.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = 102.0 LINE B /com nsel,r,loc,x,-102.1,102.1 enode,1 nsel,r,loc,x,101.9,102.1 spoint,,102.0,-45.0,162.0 fsum nelem /com /com Internal forces at x = -102.0 LINE A /com nsel,r,loc,x,-102.1,-101.9



spoint,,-102.0,-45.0,162.0 fsum eall nall fini /output /exit



Appendix FC-2 to Calculation PGE-009-CALC-003

Below is the ANSYS output file for pad internal forces for the soft rock analyses with Nu = 0.23.

CURRENT JOBNAME REDEFINED AS dcslabs9 RESUME ANSYS DATA FROM FILE NAME=dcslabs9.db \*\*\* ANSYS GLOBAL STATUS \*\*\* TITLE = Pad, LTSP(2), 20 Casks, 440 Kip West (X), Soft Rock (Nu = 0.23) ANALYSIS TYPE = STATIC (STEADY-STATE) NUMBER OF ELEMENT TYPES = 6 15348 ELEMENTS CURRENTLY SELECTED. MAX ELEMENT NUMBER = 33177 17051 NODES CURRENTLY SELECTED. MAX NODE NUMBER = 17051 259 KEYPOINTS CURRENTLY SELECTED. MAX KEYPOINT NUMBER = 259 250 LINES CURRENTLY SELECTED. MAX LINE NUMBER = 396 295 181 AREAS CURRENTLY SELECTED. MAX AREA NUMBER = 70 VOLUMES CURRENTLY SELECTED. MAX VOL. NUMBER = 70 11 COMPONENTS CURRENTLY DEFINED MAXIMUM LINEAR PROPERTY NUMBER 5 -MAXIMUM REAL CONSTANT SET NUMBER = 6 0 (CARTESIAN) ACTIVE COORDINATE SYSTEM = MAXIMUM CONSTRAINT EQUATION NUMBER = 4620 NUMBER OF SPECIFIED CONSTRAINTS = 2193 NUMBER OF NODAL LOADS 2160 ---INITIAL JOBNAME = dcslabs9 CURRENT JOBNAME = dcslabs9 PRINT HEADER DO NOT PRINT SUBTITLE(S) DO NOT PRINT LOAD STEP ID DO NOT PRINT NOTE LINE(S) PRINT COLUMN HEADER LABELS DO NOT PRINT REPORT TOTALS \*\*\*\*\* ANSYS - ENGINEERING ANALYSIS SYSTEM RELEASE 5.7 \* \* \* \* \* ANSYS/Structural U 00150104 VERSION=INTEL NT 17:14:28 JUL 11, 2001 CP= 3.545 Pad, LTSP(2), 20 Casks, 440 Kip West (X), Soft Rock (Nu = 0.23)



### \*\*\*\*\* ANSYS RESULTS INTERPRETATION (POST1) \*\*\*\*\*

ENTER /SHOW, DEVICE-NAME TO ENABLE GRAPHIC DISPLAY ENTER FINISH TO LEAVE POST1

\*\*\* NOTE \*\*\* CP= 3.545 TIME= 17:14:28 Reading results into the database (SET command) will update the current displacement and force boundary conditions in the database with the values from the results file for that load set. Note that any subsequent solutions will use these values unless action is taken to either SAVE the current values or not overwrite them (/EXIT, NOSAVE). 15348 ELEMENTS (OF 15348 DEFINED) SELECTED BY EALL COMMAND. 17051 NODES (OF 17051 DEFINED) SELECTED BY NALL COMMAND. USE LOAD STEP 1 SUBSTEP 0 FOR LOAD CASE 0 SET COMMAND GOT LOAD STEP= 1 SUBSTEP= 1 CUMULATIVE ITERATION= 12 TIME/FREQUENCY= 1.0000 TITLE= Pad, HE(1), 20 Casks, 515 Kip N (Z), Soft Rock (Nu = 0.23) SECTION THE PAD IN TO 4 NORTH-SOUTH Z-DIRECTION STRIPS Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip Z direction x = -102 to 102 Lines A to B

FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 3000 SELECTED NODES BY ENOD COMMAND. Internal forces at Z = 222.0 LINE 10 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 222.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -253147.1FY = -486235.6FZ = 1056226.MX = -0.4768628E + 08MY = 0.1393207E+08MZ = 582824.8SUMMATION POINT= 0.0000 -45.000 222.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 17051 DEFINED) SELECTED FROM 3000 NODES (OF 2830 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 162.0 LINE 9 FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 RESELECT KABS= 0. TOLERANCE= 0.120020E-04 2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -297808.8FY = -539751.7 FZ = 986961.7

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## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

MX = -0.2169951E+08MY = 0.1925995E+08MZ = 2905817.

SUMMATION POINT= 0.0000 -45.000 162.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 102.0 LINE 8

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS= 0. TOLERANCE= 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -352360.9FY = -542959.3FZ = 1008112.MX = 3083858. MY = 0.1672616E+08MZ = 4408049.

SUMMATION POINT= 0.0000 -45.000 102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*

FX = -382805.7 FY = -559467.4 FZ = 835299.2 MX = -1285165. MY = 0.1201321E+08 MZ = 6595451.

SUMMATION POINT= 0.0000 -45.000 -102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

RESELECT . FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

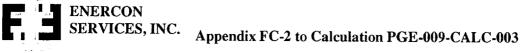
1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=0.00000-45.0000-306.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -366862.1



FΥ	=	-570591.9
FΖ	=	560206.8
MX	=	578436.2
MY	=	9014312.
ΜZ	=	7528594.

SUMMATION POINT= 0.0000 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -510.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -363684.7

- $\cdot$  FY = -618683.8
  - FZ = 272231.4
  - MX = 8473042.
  - MY = 7707451.
  - MZ = 9774896.

SUMMATION POINT= 0.0000 -45.000 -510.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -714.0 LINE 4

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

KABS= 0. TOLERANCE= 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -714.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -351415.1 FY = -731522.5 FZ = -73224.44 MX = 0.3244085E+08 MY = 5077726. MZ = 9766393.

SUMMATION POINT= 0.0000 -45.000 -714.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

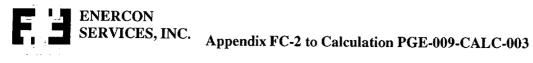
SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -918.000



\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -208741.0 FY = -176349.2 FZ = -453476.1 MX = 0.1621582E+08 MY = -1158575. MZ = 454255.0

SUMMATION POINT= 0.0000 -45.000 -918.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -112942.5 FY = -87845.30 FZ = -534106.2 MX = 0.2446948E+08

MY = -954710.7MZ = -1466162.

SUMMATION POINT= 0.0000 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -1038.0 LINE 1

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RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS = 0. TOLERANCE = 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 112942.5FY = 11345.30 FZ = 611371.2 MX = -0.2744520E + 08MY = 7731260.MZ = 1466162. SUMMATION POINT= 0.0000 -45.000 -1038.0 next strip x = 102 to 306 Lines B to C Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip Z direction RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 306.10 KABS= 0. TOLERANCE= 0.204200E-05 3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND. Internal forces at Z = 222.0 LINE 10 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 204.000 -45.0000 222.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -33137.57FY = -431042.1FZ = 985987.0 MX = -0.4421329E + 08MY = 626812.1MZ = -1373122.SUMMATION POINT= 204.00 -45.000 222.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 162.0 LINE 9 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS = 0. TOLERANCE = 0.120020E-04 2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -38990.61FY = -472610.7FZ = 833967.4 MX = -0.1674950E+08MY = 930532.0 MZ = -853950.2SUMMATION POINT= 204.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2975 NODES (OF 17051 DEFINED) SELECTED FROM

2810 SELECTED ELEMENTS BY NELE COMMAND.

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Internal forces at Z = 102.0 LINE 8

BETWEEN -1038.1 AND 102.10 RESELECT FOR ITEM=LOC COMPONENT=Z KABS= 0. TOLERANCE= 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -63029.18FY = -447536.5

FZ = 825041.2

MX = 7114932. MY = 1376340.

MZ = -755212.6

SUMMATION POINT= 204.00 -45.000 102.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

15348 DEFINED) SELECTED FROM 2240 ELEMENTS (OF 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -102.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -119543.2FY = -445623.1FZ = 699439.8 MX = 1605822.3454929. MY = MZ = -41155.57 SUMMATION POINT= 204.00 -45.000 -102.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -306.0 LINE 6 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05 1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -306.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -119054.4FY = -451585.3FZ = 518744.1 MX = 3672540. MY = 2864741. ΜZ 326809.0 SUMMATION POINT= 204.00 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

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1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 RESELECT KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z RESELECT BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -510.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -118332.6FY = -482604.5

FZ = 302610.4 MX = 0.1228519E+08MY = 2049227. MZ = 784309.3

SUMMATION POINT= 204.00 -45.000 -510.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -714.0 LINE 4

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90

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**ENERCON** SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 204.000 -45.0000 -714.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -109275.8FY = -618456.8FZ = 30160.77 MX = 0.3371898E+08MY = 1542025. MZ = 402103.3SUMMATION POINT= 204.00 -45.000 -714.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -918.0 LINE 3 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05 75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -918.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -32653.79FY = -129650.9 FZ = -335164.2 MX = 0.1482070E+08 MY = 1007255.MZ = -820691.9SUMMATION POINT= 204.00 -45.000 -918.00

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SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = -9287.482
FY = -65154.71
FZ = -472725.4
MX = 0.2320179E+08
MY = 344938.0
MZ = -661944.7

SUMMATION POINT= 204.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -1038.0 LINE 1

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=204.000-45.0000-1038.00

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*



## SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

FX	=	9287.482
FΥ	=	-11345.29
FZ	=	549990.4
MX	=	-0.2481607E+08
MY	=	212310.9
MZ	=	661944.7

SUMMATION POINT= 204.00 -45.000 -1038.0 next strip x = 306 to 510 Lines C to D

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip Z direction

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 510.10 KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND.

Internal forces at Z = 222.0 LINE 10

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 222.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 33137.49 FΥ = -431042.0 FZ = 985987.0 MX = -0.4421329E+08MY = -626815.2

MZ = 1373107.

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SUMMATION POINT= 408.00 -45.000 222.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 162.0 LINE 9

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04

2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

15348 DEFINED) SELECTED FROM 2810 ELEMENTS (OF 2975 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 38990.56FY = -472610.7FZ = 833967.4 MX = -0.1674950E + 08MY = -930533.4MZ = 853948.2

SUMMATION POINT= 408.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 102.0 LINE 8

BETWEEN -1038.1 AND 102.10 RESELECT FOR ITEM=LOC COMPONENT=Z KABS= 0. TOLERANCE= 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

# ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 63029.14FY = -447536.5FZ= 825041.4 MX = 7114930. = -1376332. MY MZ = 755216.2

SUMMATION POINT= 408.00 -45.000 102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 119543.2FY = -445623.0FZ = 699439.8 1605822. MX =

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MY = -3454928. MZ = 41155.95

SUMMATION POINT= 408.00 -45.000 -102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -306.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 119054.3 FY = -451585.2 FZ = 518744.1 MX = 3672542. MY = -2864741. MZ = -326809.0

SUMMATION POINT= 408.00 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

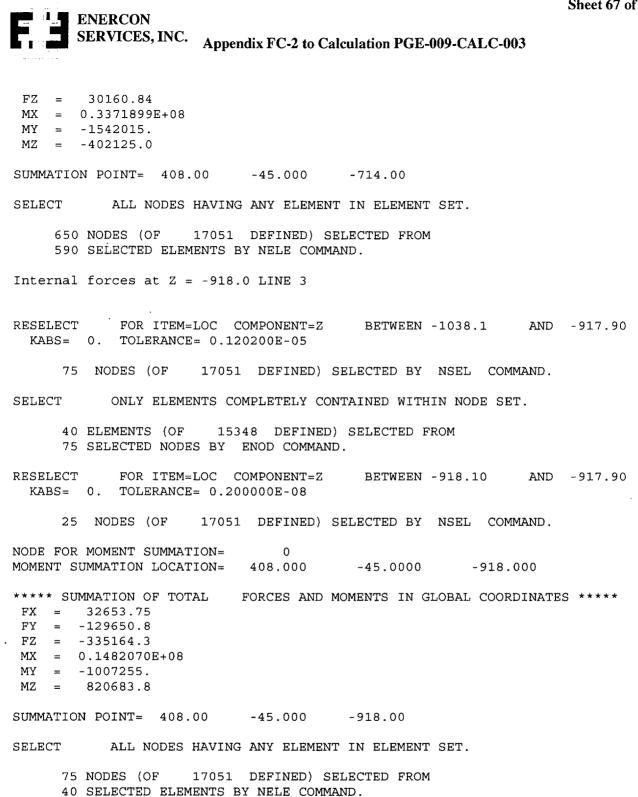
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SELECT

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 408.000 -45.0000 -510.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 118332.5 FY = -482604.4FZ 302610.4 = MX = 0.1228519E+08MY = -2049224.MZ = -784311.9SUMMATION POINT= 408.00 -45.000 -510.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -714.0 LINE 4 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05 650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -714.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 109275.7 FY = -618456.6



Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

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## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 9287.416FY = -65154.68FZ = -472725.5MX = 0.2320179E+08MY = -344934.5MZ = 661938.6 SUMMATION POINT= 408.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -1038.0 LINE 1 FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*

FX = -9287.416 FY = -11345.32 FZ = 549990.5 MX = -0.2481607E+08 MY = -212310.4 MZ = -661938.6SUMMATION POINT= 408.00 -45.000 -1038.0

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Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip Z direction

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 714.10 KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND.

Internal forces at Z = 222.0 LINE 10

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=612.000-45.0000222.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 253146.9
FY = -486235.5
FZ = 1056226.
MX = -0.4768628E+08
MY = -0.1393206E+08
MZ = -582828.3

SUMMATION POINT= 612.00 -45.000 222.00

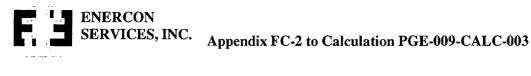
SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 162.0 LINE 9



RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04 2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 297808.7 FY = -539751.7FZ = 986961.7 MX = -0.2169951E+08 MY = -0.1925995E+08 MZ = -2905817. SUMMATION POINT= 612.00 -45.000 162.00 ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 102.0 LINE 8 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS= 0. TOLERANCE= 0.114020E-04 2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0



MOMENT SUMMATION LOCATION= 612.000 -45.0000 102.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 352360.8 FY = -542959.3FZ = 1008112. MX = 3083859. MY = -0.1672615E+08MZ = -4408047. SUMMATION POINT= 612.00 -45.000 102.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -102.0 LINE 7 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05 2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -102.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 382805.6 FY = -559467.4FZ 835299.2 = MX = -1285164.MY = -0.1201320E + 08MZ = -6595449.SUMMATION POINT= 612.00 -45.000 -102.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=612.000-45.0000-306.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 366861.9 FY = -570591.8 FZ = 560206.8 MX = 578436.5 MY = -9014309. MZ = -7528593.

SUMMATION POINT= 612.00 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

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NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -510.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 363684.6FY = -618683.8FZ = 272231.3 MX = 8473041. MY = -7707448. MZ = -9774894.SUMMATION POINT= 612.00 -45.000 -510.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -714.0 LINE 4 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05 650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 15348 DEFINED) SELECTED FROM 590 ELEMENTS (OF 650 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -714.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 351415.0FY = -731522.4FZ = -73224.50MX = 0.3244085E+08MY = -5077722. MZ = -9766394. -714.00 SUMMATION POINT= 612.00 -45.000 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 650 NODES (OF 17051 DEFINED) SELECTED FROM

590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -918.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 208740.9= -176349.2FY FZ = -453476.2MX = 0.1621582E+08

MY = 1158578.MZ = -454257.1

SUMMATION POINT= 612.00 -45.000 -918.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

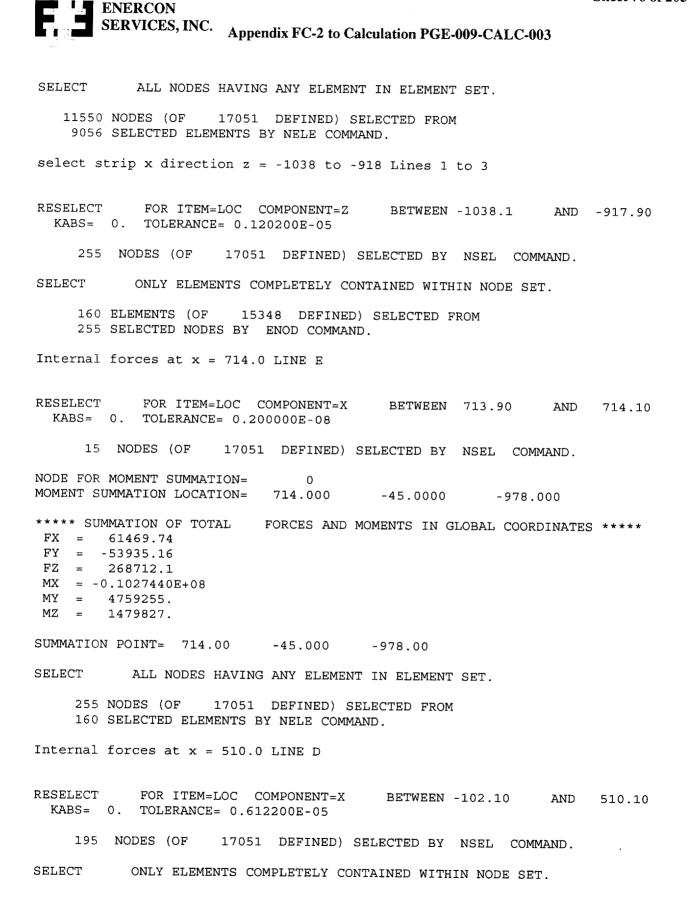
SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 112942.4FY = -87845.31FZ = -534106.2MX = 0.2446948E+08MY = 954713.7 MZ = 1466159.SUMMATION POINT= 612.00 -45.000 -978.00 ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -1038.0 LINE 1 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -112942.4FY = 11345.31FZ = 611371.2  $\cdot$  MX = -0.2744520E+08 MY = -7731259.MZ = -1466159.SUMMATION POINT= 612.00 -45.000 -1038.0 SECTION THE PAD IN TO 7 EAST-WEST X-DIRECTION STRIPS Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

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120 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 195 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 263271.5 FY = -31073.88FZ = 40409.07MX = -1374916.MY = -1527869.

MZ = -3930867.

SUMMATION POINT= 510.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

195 NODES (OF 17051 DEFINED) SELECTED FROM 120 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT AND 306.10 FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 KABS= 0. TOLERANCE= 0.408200E-05

135 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

80 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 135 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 305451.5

FY = -4713.100

FZ = 15686.93

MX = -199994.9

-----

MY = -1925405. MZ = -5842361.

SUMMATION POINT= 306.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

135 NODES (OF 17051 DEFINED) SELECTED FROM 80 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 236397.222683.70 FY = FZ = -15222.60MX = 1335799.

- $\cdot$  MY = -3123415. MZ = -4315664.

SUMMATION POINT= 102.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

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NODE FOR MOMENT SUMMATION= 0 -978.000 MOMENT SUMMATION LOCATION= -102.000 -45.0000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -61469.71FY = -53935.17FZ = 268712.1MX = -0.1027440E+08MY = -4759257.MZ = -1479825.SUMMATION POINT= -102.00 -45.000 -978.00 ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 17051 DEFINED) SELECTED FROM 75 NODES (OF 40 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -918 to -714 Lines 3 to 4 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = -918 to -714RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -713.90 KABS= 0. TOLERANCE= 0.204200E-05 2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 15348 DEFINED) SELECTED FROM 2200 ELEMENTS (OF 2310 SELECTED NODES BY ENOD COMMAND. Internal forces at x = 714.0 LINE E RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 66497.41FY = -105791.6FZ = 494736.2 4356187. MX = MY = 0.1438446E+08 MZ = 2203763. SUMMATION POINT= 714.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 510.0 LINE D RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05 1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND. RESELECT . FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 223674.5FY = -80731.12FZ = 229675.8 MX = 8013731. MY 3033345. = MZ = -8175712.

SUMMATION POINT= 510.00 -45.000 -816.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

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1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -816.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 295065.1
FY = -54022.29
FZ = 52268.56

- MX = 8135497. MY = -2423764.
- MZ = -0.1047316E+08

SUMMATION POINT= 306.00 -45.000 -816.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10

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ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 196790.9FY = -27669.08FZ = -133255.6MX = 7965953. MY = -5325001. MZ = -7411986. SUMMATION POINT= 102.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -66497.36FY = -105791.6FZ = 494736.4 MX = 4356184.MY = -0.1438446E + 08MZ = -2203761.SUMMATION POINT= -102.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -714 to -510 Lines 4 to 5 Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -714 to -510

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -509.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45,0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 157384.4

 $\cdot$  FY = -188759.8 FZ = 550799.6 MX = 3604530. MY = 0.1620480E+08MZ = 7237244.

SUMMATION POINT= 714.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10

KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 223752.4 FY = -42667.77 FZ = 279789.0 MX = 8116932. MY = 7332847. MZ = -7470332.

SUMMATION POINT= 510.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=306.000-45.0000-612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 254516.5 FY = -16079.83 FZ = 44084.01 MX = 6857420. MY = 1042512.

MZ = -8602926.

SUMMATION POINT= 306.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=102.000-45.0000-612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 222270.8 FY = 16174.45 FZ = -180875.6 MX = 5354020.

MY = -4423689. MZ = -7459102.

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SUMMATION POINT= 102.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

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RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -612.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -157384.3FY = -188759.8FZ = 550799.8 MX = 3604528. MY = -0.1620480E+08MZ = -7237241.SUMMATION POINT= -102.00 -45.000 -612.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -510 to -306 Lines 5 to 6 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = -510 to -306RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -305.90 KABS= 0. TOLERANCE= 0.204200E-05 2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND. Internal forces at x = 714.0 LINE E

AND 714.10



RESELECT

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SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

FOR ITEM=LOC COMPONENT=X BETWEEN 713.90

KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -408.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 180746.8FY = -200499.6FZ = 560925.5 MX = 675226.3MY = 0.1567912E + 08MZ = 8225293. SUMMATION POINT= 714.00 -45.000 -408.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 510.0 LINE D RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05 1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND. BETWEEN 509.90 AND 510.10 RESELECT FOR ITEM=LOC COMPONENT=X KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -408.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 251432.7 FΥ -47745.56 ~ FZ = 276441.6 MX = 7178354. MY = 7513231. MZ = -6918573.

SUMMATION POINT= 510.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS = 0. TOLERANCE = 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 306.000 -45.0000 -408.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 279519.0 FY = -18916.04FZ = 40107.55 MX = 6541304.MY = 1638915.MZ = -7775565.

SUMMATION POINT= 306.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

#### ENERCON SERVICES INC

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550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -408.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 247476.6

SUMMATION POINT= 102.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -408.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = -180746.8
FY = -200499.7
FZ = 560925.7
MX = 675224.0
MY = -0.1567913E+08
MZ = -8225291.

SUMMATION POINT= -102.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

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# ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

next strip z = -306 to -102 Lines 6 to 7

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -306 to -102

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -101.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 179326.7 FY = -194483.4FZ = 568619.1 MX = 177637.6 MY = 0.1570558E+08 MZ = 8053041. SUMMATION POINT= 714.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

#### ENERCON SERVICES, INC.

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Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 258655.4

- FY = -49632.22
- FZ = 279881.9
- MX = 6518585.
- $\begin{array}{rcl} MY &=& 7031269\,.\\ MZ &=& -6768546\,. \end{array}$

SUMMATION POINT= 510.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

#### ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -204.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 282881.6 FY = -22294.89 FZ 37843.37 = MX = 6593274. MY = 539696.5 MZ = -7551101.SUMMATION POINT= 306.00 -45.000 -204.00 ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 102.0 LINE B RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05 600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=102.000-45.0000-204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 253831.1 FY = 11517.14 FZ = -195143.4 MX = 6713305. MY = -5029196. MZ = -7080056.SUMMATION POINT= 102.00 -45.000 -204.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0

MOMENT SUMMATION LOCATION= -102.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -179326.7 FY = -194483.5 FZ = 568619.3 MX = 177634.4 MY = -0.1570558E+08 MZ = -8053039.

SUMMATION POINT= -102.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

next strip z = -102 to 102 Lines 7 to 8

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -102 to 102

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

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### ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND. Internal forces at x = 714.0 LINE E FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 0.00000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 177178.6FY = -206538.7FZ = 584900.8 MX = 610346.3 MY = 0.1631616E+08 MZ = 7948888. SUMMATION POINT= 714.00 -45.000 0.0000 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 510.0 LINE D RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05 1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 0.00000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 162569.5

# FY = -57093.12 FZ = 227227.5 MX = 6826417. MY = 1913367. MZ = -6537787.

SUMMATION POINT= 510.00 -45.000 0.0000

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 0.00000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*

FX = 137721.6 FY = -32616.06 FZ = 36837.69 MX = 7872298. MY = -4068969.MZ = -6937079.

SUMMATION POINT= 306.00 -45.000 0.0000

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10

**ENERCON** SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 KABS= 0. TOLERANCE= 0.204200E-05 600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 0.00000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 191752.1FY = 1710.769 FZ = -173146.4MX = 8864090. MY = -7140700. MZ = -6856856.SUMMATION POINT= 102.00 -45.000 0.0000 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 0.00000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -177178.6FY = -206538.8FZ584901.0 MX = 610342.7 MY = -0.1631616E + 08MZ = -7948887. SUMMATION POINT= -102.00 -45.000 0.0000

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

next strip z = 102 to 222 Lines 8 to 10

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = 102 to 222

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 222.10 KABS= 0. TOLERANCE= 0.120200E-05

255 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

160 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 255 SELECTED NODES BY ENOD COMMAND.

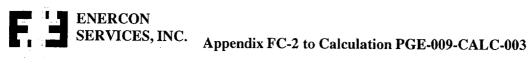
Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 91306.66
FY = -106570.9
FZ = 429069.6
MX = -0.1171784E+08
MY = 9207321.
MZ = 5977910.
SUMMATION POINT= 714.00 -45.000 162.00



SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

255 NODES (OF 17051 DEFINED) SELECTED FROM 160 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

195 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET

120 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 195 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -92216.04FY = -37062.2257472.94 FZ = MX = -1044713.MY = -790136.2MZ = -818050.9

SUMMATION POINT= 510.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

195 NODES (OF 17051 DEFINED) SELECTED FROM 120 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

135 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

80 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

135 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 306.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -105502.8FY = -27843.01FZ =14168.28 MX = -221381.0MY = -1458224. MZ = -959504.0SUMMATION POINT= 306.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 135 NODES (OF 17051 DEFINED) SELECTED FROM 80 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 102.0 LINE B RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05 75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -74858.99FY = -11481.10FZ = -41917.24MX = 1010098.MY = -3644968. MZ = -1019294.

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# ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

SUMMATION POINT= 102.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= n MOMENT SUMMATION LOCATION= -102.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -91306.68 FY = -106570.9FZ = 429069.8 MX = -0.1171784E+08 MY = -9207326. MZ = -5977912.SUMMATION POINT= -102.00 -45.000 162.00 15348 ELEMENTS (OF 15348 DEFINED) SELECTED BY EALL COMMAND. 17051 NODES (OF 17051 DEFINED) SELECTED BY NALL COMMAND. USE LOAD STEP 2 SUBSTEP 0 FOR LOAD CASE 0 SET COMMAND GOT LOAD STEP= 2 SUBSTEP= 1 CUMULATIVE ITERATION= 22 TIME/FREQUENCY= 2.0000 TITLE= Pad, HE(1), 20 Casks, 515 Kip N 45 W (Z,X), Soft Rock (Nu = 0.23) SECTION THE PAD IN TO 4 NORTH-SOUTH Z-DIRECTION STRIPS Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip Z direction x = -102 to 102 Lines A to B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

15348 DEFINED) SELECTED FROM 2830 ELEMENTS (OF 3000 SELECTED NODES BY ENOD COMMAND.

Internal forces at Z = 222.0 LINE 10

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 222.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 252769.1FY = -330835.9703426.2 FZ = MX = -0.2952758E+08MY = -4211522.MZ = 512829.6

• SUMMATION POINT= 0.0000 -45.000 222.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 162.0 LINE 9

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 RESELECT KABS= 0. TOLERANCE= 0.120020E-04

2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 102518.5FY = -367062.6FZ = 750679.2 MX = -0.1144771E+08MY 6554547. = MZ = -8617628.SUMMATION POINT= 0.0000 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 102.0 LINE 8 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS= 0. TOLERANCE= 0.114020E-04 2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 102.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 72261.71

FY = -349440.3 FZ = 858692.4

**ENERCON** 

- MX = 5772851.
- MY = 9354459.

MZ = -0.1409877E+08

-45.000 SUMMATION POINT= 0.0000 102.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -61055.03FY = -401284.9FZ = 954724.4 MX == 3150395. MY = 9293127. MZ = -6645137.

SUMMATION POINT= 0.0000 -45.000 -102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 RESELECT KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

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ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -306.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -143128.3FY = -435617.2FZ = 869789.3 MX 7612994. = MY 9842529. = MZ = -5142224. SUMMATION POINT= 0.0000 -45.000 -306.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -510.0 LINE 5 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05 1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. · SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -510.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -219683.1FY = -463181.1FZ = 667058.3

MX = 0.1822035E+08MY = 0.1095932E+08

MZ = -9355444.

SUMMATION POINT= 0.0000 -45.000 -510.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -714.0 LINE 4

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= Ω MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -714.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -288088.3FY = -371584.8FZ = 315841.2MX = 0.2806182E+08MY = 0.1037884E+08MZ = -0.1164925E+08

SUMMATION POINT= 0.0000 -45.000 -714.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -918.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -327123.1 FY = -137375.8 FZ = -222451.5 MX = 0.1033358E+08 MY = 8315253. MZ = -919212.1

SUMMATION POINT= 0.0000 -45.000 -918.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

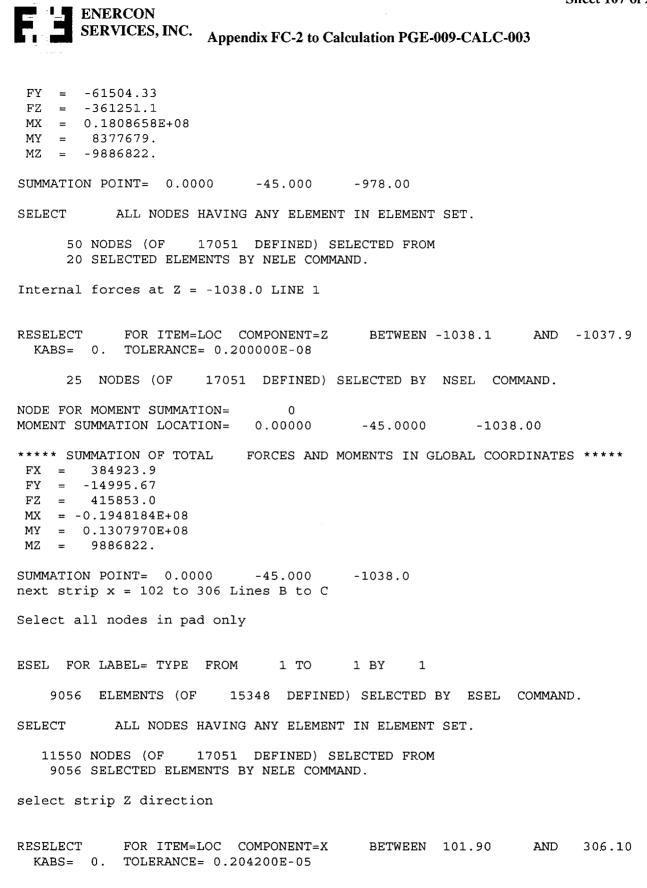
20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=0.00000-45.0000-978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -330322.1



3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND.

Internal forces at Z = 222.0 LINE 10

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 222.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 449147.1 FY = -359193.2 FZ = 728407.1 MX = -0.3280030E+08 MY = -0.1345146E+08 MZ = 4050332.

SUMMATION POINT= 204.00 -45.000 222.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 162.0 LINE 9

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04

2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 162.000

#### ENERCON SERVICES, INC.

# SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 415845.3 FY = -374972.2 FZ = 631256.8 MX = -0.1150287E+08 MY = -0.1219308E+08 MZ = -4845351.

SUMMATION POINT= 204.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 102.0 LINE 8

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS= 0. TOLERANCE= 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=204.000-45.0000102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 440727.2 FY = -345614.4 FZ = 636279.1 MX = 6574364. MY = -8685173. MZ = -8308920.

SUMMATION POINT= 204.00 -45.000 102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7



RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 242013.9 FY = -335497.1 FZ = 638841.3 MX = 3462385. MY = -1725363. MZ = -5361972.

SUMMATION POINT= 204.00 -45.000 -102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

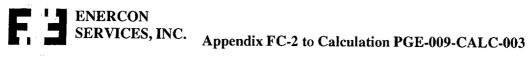
SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204,000 -45.0000 -306.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 71483.11FY = -341400.4FZ = 559140.2 MX = 5567088. MY = 2914270. MZ = -5006028. SUMMATION POINT= 204.00 -45.000 -306.00 ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -510.0 LINE 5 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05 1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -510.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -90016.80FY = -363826.9FZ = 405575.6MX = 0.1233707E+08MY = 5773086. MZ = -6961289.-45.000 SUMMATION POINT= 204.00 -510.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.



Internal forces at Z = -714.0 LINE 4

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND.

ESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08 RESELECT

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -714.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -262804.2FY = -403144.6FZ = 150893.2 MX = 0.2508847E+08MY = 7545574.

MZ = -0.1240051E+08

SUMMATION POINT= 204.00 -45.000 -714.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 KABS= 0. TOLERANCE= 0.200000E-08

SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -918.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -340058.3FY = -91826.34FZ = -204274.4MX = 0.1089276E+08MY = 0.1146893E+08MZ = -6584255.SUMMATION POINT= 204.00 -45.000 -918.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -978.0 LINE 2 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06 50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

ENERCON

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=204.000-45.0000-978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = -352507.9
FY = -48764.50
FZ = -324476.2
MX = 0.1670322E+08
MY = 0.1170194E+08
MZ = -0.1071258E+08
SUMMATION POINT= 204.00 -45.000 -978.00
SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

#### Sheet 114 of 205

SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -1038.0 LINE 1 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 407109.8FY = -27735.50FZ = 379078.1 MX = -0.1733409E+08MY = 0.1108660E + 08MZ = 0.1071258E+08SUMMATION POINT= 204.00 -45.000 -1038.0 next strip x = 306 to 510 Lines C to D Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip Z direction FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN 305.90 AND 510.10 KABS= 0. TOLERANCE= 0.204200E-05 3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT 2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND. Internal forces at Z = 222.0 LINE 10

**ENERCON** 

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 222.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 499558.4FY = -349418.4FZ = 753691.3 MX = -0.3387067E+08MY = -0.1423997E + 08MZ = 6906147. -45,000 SUMMATION POINT= 408.00 222.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 162.0 LINE 9 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04 2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 408.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 468042.6FY = -371496.8FZ = 637282.8 MX = -0.1235686E + 08MY = -0.1326573E + 08MZ = -2575251.SUMMATION POINT= 408.00 -45.000 162.00



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SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 102.0 LINE 8

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS = 0. TOLERANCE = 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 408.000 -45.0000 102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 523307.7 FY = -345430.9FZ = 619790.7 6038325. MX = MY = -0.1038503E+08MZ = -6160163.

SUMMATION POINT= 408.00 -45.000 102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 RESELECT KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

**ENERCON** SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 2375 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 408.000 -45.0000 -102.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 402813.4FY = -324109.6FZ = 489835.9 MX = 2902258. -6371748. MY = MZ = -4452629. SUMMATION POINT= 408.00 -45.000 -102.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -306.0 LINE 6 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05 1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -306.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 233452.1FY = -325444.6

- FZ = 319942.0MX = 3668301. MY = -997763.7
- MZ = -4341204.



SUMMATION POINT= 408.00 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 408.000 -45.0000 -510.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 72890.84FY = -334446.3 FZ = 162878.9 MX = 7875303. MY = 3020258.MZ = -5174564.

SUMMATION POINT= 408.00 -45.000 -510.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -714.0 LINE 4

FOR ITEM=LOC COMPONENT=Z BETWEEN ~1038.1 AND -713.90 RESELECT KABS= 0. TOLERANCE= 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713,90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -714.000 0 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -113445.6FY = -336313.7FZ = 9159.221 MX = 0.1719873E+08MY = 5614826. MZ = -7503937.SUMMATION POINT= 408.00 -45.000 -714.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=408.000-45.0000-918.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*

FX = -313683.6FY = -119113.0

FZ = -228804.2

MX = 9577077.

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MY = 0.1065409E+08MZ = -4247259.

SUMMATION POINT= 408.00 -45.000 -918.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 408.000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -383072.3 FY = -59108.69FZ = -331698.7MX = 0.1637446E+08 MY = 0.1246841E+08

MZ = -0.1021930E + 08

SUMMATION POINT= 408.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -1038.0 LINE 1

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.



NODE FOR MOMENT SUMMATION=

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0

MOMENT SUMMATION LOCATION= 408.000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 437674.2FY = -17391.31FZ = 386300.6 MX = -0.1762599E+08MY = 0.1215399E+08MZ = 0.1021930E+08SUMMATION POINT= 408.00 -45.000 -1038.0 next strip x = 510 to 714 Lines D to E Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip Z direction RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 714.10 KABS= 0. TOLERANCE= 0.204200E-05 3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND. Internal forces at Z = 222.0 LINE 10 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 612.000 -45.0000 222.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 629075.1

**ENERCON** SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 FY = -413790.8FZ = 846336.1 MX = -0.4023518E+08 MY = -0.2357441E+08MZ = 4385613.SUMMATION POINT= 612.00 -45.000 222.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 162.0 LINE 9 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04 2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 521055.0FY = -452707.3FZ = 708109.7 MX = -0.1923640E+08MY = -0.1998560E+08MZ = -7470731.SUMMATION POINT= 612.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 102.0 LINE 8 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10

KABS= 0. TOLERANCE= 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 563723.5FY = -480910.4FZ = 634252.3 MX = 1060752. MY = -0.1411821E+08MZ = -0.1515538E+08

SUMMATION POINT= 612.00 -45.000 102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= Ω MOMENT SUMMATION LOCATION= 612.000 -45.0000 -102.000



\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 469158.4 FY = -437674.9 FZ = 352313.0 MX = -981186.0 MY = -8242769. MZ = -0.1117563E+08

SUMMATION POINT= 612.00 -45.000 -102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=612.000-45.0000-306.000

\*\*\*\*\* SUMMATION OF TOTAL FX = 363796.4 FY = -430162.1 FZ = 53847.71 MX = -965039.1 MY = -3674904. MZ = -0.1047022E+08

SUMMATION POINT= 612.00 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5



RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -510.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 273171.0 FY = -435761.1 FZ = -173128.8 MX = 1875447. MY = -412515.6 MZ = -0.1106809E+08

SUMMATION POINT= 612.00 -45.000 -510.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -714.0 LINE 4

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.



MOMENT SUMMATION LOCATION= 612.000 -45.0000 -714.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 175881.9FY = -426325.4FZ = -347784.2MX = 9253623. MY = 3839670.MZ = -0.1313656E + 08SUMMATION POINT= 612.00 -45.000 -714.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -918.0 LINE 3 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS = 0. TOLERANCE = 0.120200E-05 75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= . 612.000 -45.0000 -918.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -46773.15FY -203238.9 = FZ = -420061.5MX = 4161648.MY = 0.1241662E+08MZ = -7201780. SUMMATION POINT= 612.00 -45.000 -918.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.



Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=612.000-45.0000-978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -261077.1 FY = -136622.5 FZ = -397074.8 MX = 0.1313661E+08 MY = 0.1364522E+08

MZ = -0.1468244E+08

SUMMATION POINT= 612.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -1038.0 LINE 1

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08

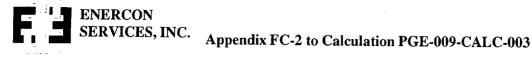
25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -1038.00

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 315679.0 FY = 60122.48 FZ = 451676.6

MX = ~0.1903896E+08

MY = 3657465.



MZ = 0.1468244E+08

SUMMATION POINT= 612.00 -45.000 -1038.0 

SECTION THE PAD IN TO 7 EAST-WEST X-DIRECTION STRIPS

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -1038 to -918 Lines 1 to 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

255 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

160 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 255 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 398864.3 FY = -130029.5FΖ 70067.23 = MX = -2390054. MY = 279591.5 MZ = 0.1684882E+08SUMMATION POINT= 714.00 -45.000 -978.00



SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

255 NODES (OF 17051 DEFINED) SELECTED FROM 160 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

195 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

120 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 195 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 424530.9 FY = -140482.4 FZ = -200242.2 MX = 2002230. MY = -8188003. MZ = -1144933.

SUMMATION POINT= 510.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

195 NODES (OF 17051 DEFINED) SELECTED FROM 120 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

135 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

80 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

135 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 306.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 319811.9 FY = -99740.04FZ = -210576.6 MX = 4047114. MY = -7198791.MZ = -0.1224008E+08SUMMATION POINT= 306.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 135 NODES (OF 17051 DEFINED) SELECTED FROM 80 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 102.0 LINE B RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05 75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 114730.4FY = -20397.20FZ = -184577.3 MX = 4251029.MY = -5585322.

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MZ = -0.1646596E+08

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SUMMATION POINT= 102.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 174738.0FY = -58783.32 FZ = 293934.9 MX = -9568495. MY = -6364393.MZ = 9050236. SUMMATION POINT= -102.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -918 to -714 Lines 3 to 4 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = -918 to -714RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -713.90  

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 KABS=
 0.
 TOLERANCE=
 0.204200E-05

 2310
 NODES (OF
 17051
 DEFINED) SELECTED BY NSEL COMMAND.

 SELECT
 ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=714.000-45.0000-816.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 646389.9

- FY = -476856.2 FZ = 265057.6
- MX = 7085754.
- MY = 0.1015930E+08 MZ = 0.2902926E+08

SUMMATION POINT= 714.00 -45.000 -816.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

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### SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 430733.3FY = -455050.2FZ = -116795.1MX = 8768720. MY = -5640580.MZ = -1456373.SUMMATION POINT= 510.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 306.0 LINE C RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05 1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 380493.9FY = -462537.7FZ = -284208.6MX = 0.1397448E+08MY = -0.1010359E+08MZ = -0.1945378E+08SUMMATION POINT= 306.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1170 NODES (OF 17051 DEFINED) SELECTED FROM

1100 SELECTED ELEMENTS BY NELE COMMAND.



Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -816.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 186946.7FY = -345101.9FZ = -307427.9MX = 0.1564160E+08MY = -9087120.

MZ = -0.3256782E+08

SUMMATION POINT= 102.00 -45.000 -816.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -816.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 293312.7 FY = 5330.396 FZ = 421550.6 MX = -1815580.



MY = -0.1030076E+08 MZ = 0.1288840E+08

SUMMATION POINT= -102.00 -45.000 -816.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

next strip z = -714 to -510 Lines 4 to 5

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -714 to -510

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -509.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

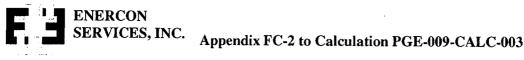
2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION = 0 MOMENT SUMMATION LOCATION = 714.000 -45.0000 -612.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 733098.3

FY = -527781.4 FZ = 344630.1



MX = 2461190.MY = 0.1034324E+08MZ = 0.3287802E+08

SUMMATION POINT= 714.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 398241.9FY = -415245.0FZ = 93907.09 MX = 6204365. MY = 2760650. MZ = 414845.1

SUMMATION POINT= 510.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 328825.8 FY = -398697.7 FZ = -96681.86 MX = 8228230. MY = -2875720. MZ = -0.1388997E+08

SUMMATION POINT= 306.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 161903.0

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 FY = -443610.5FZ = -197004.3 MX = 0.1515583E+08 MY = -5930858.MZ = -0.3156664E+08SUMMATION POINT= 102.00 -45.000 -612.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -612.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 321531.9 FY = -14869.31FZ = 401446.0MX = -4425918.MY = -0.1004451E+08MZ = 0.1448958E+08 SUMMATION POINT= -102.00 -45.000 -612.00 ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -510 to -306 Lines 5 to 6 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.



select strip x direction z = -510 to -306

FOR ITEM=LOC COMPONENT=Z RESELECT BETWEEN -510.10 AND -305.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -408.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 750486.3FY = -527827.5FZ = 406546.5 MX = 606947.0 MY = 0.1124829E+08

MZ = 0.3359276E+08

SUMMATION POINT= 714.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -408.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 416097.3FY = -402540.7FZ = 236763.5MX = 5051511. MY = 6195717. MZ = 1101304. SUMMATION POINT= 510.00 -45.000 -408.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 306.0 LINE C RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05 1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 RESELECT AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -408.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 332353.6 FY = -373967.0FZ = 80138.89 MX = 5660842. MY = 2281972. MZ = -0.1084830E+08SUMMATION POINT= 306.00 -45.000 -408.00



SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=102.000-45.0000-408.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 150252.1 FY = -406282.9 FZ = -87139.58 MX = 8044234. MY = -2464445. MZ = -0.2658627E+08

SUMMATION POINT= 102.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -408.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 335713.5 FY = -303.0065 FZ = 372149.5 MX = -3015578. MY = -0.1001551E+08 MZ = 0.1509623E+08

SUMMATION POINT= -102.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

next strip z = -306 to -102 Lines 6 to 7

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -306 to -102

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -101.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

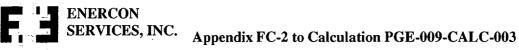
2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -204.000



\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 730823.3 FY = -518313.2FZ = 469925.1 MX = -215092.7MY = 0.1240895E+08MZ = 0.3261549E+08

SUMMATION POINT= 714.00 -45.000 -204.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* 407309.1 FX = FY = -394368.7FZ = 383018.9 MX = 4865788. MY = 9248279. MZ = 1181751.

SUMMATION POINT= 510.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

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RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05 1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -204.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 323079.5FY = -359739.6 FZ = 255527.9 MX = 5570196. MY = 6015783. MZ = -9420260. SUMMATION POINT= 306.00 -45.000 -204.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 102.0 LINE B RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05 600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

#### NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 102.000 -45.0000 -204.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 150569.4FY = -367228.5FZ = 26407.84 MX = 7563513. MY = 599920.2MZ = -0.2314059E+08SUMMATION POINT= 102.00 -45.000 -204.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A FOR ITEM=LOC COMPONENT=X BETWEEN ~102.10 AND ~101.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= -102.000 -45.0000 -204.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 328422.412902.69 FY = FZŦ 329590.9 MX = -2196714.MY = -9196853. MZ = 0.1454880E+08SUMMATION POINT= -102.00 -45.000 -204.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -102 to 102 Lines 7 to 8 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

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**ENERCON** 

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.



ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -102 to 102

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 0.00000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 683272.2FY = -507867.1= FΖ 545485.8 MX = 55936.34 MY = 0.1401950E + 08MZ = 0.3042381E+08

SUMMATION POINT= 714.00 -45.000 0.0000

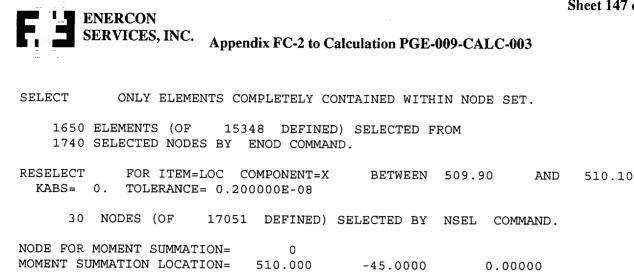
SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.



\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 345252.4FY = -388397.2FZ = 508027.0MX = 5548398. MY = 0.1101486E+081121853. M7. =

SUMMATION POINT= 510.00 -45.000 0.0000

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 0.00000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 201475.8 FY = -351939.6FZ = 429490.6



MX = 6753732.MY = 6928509. MZ = -7784088.

SUMMATION POINT= 306.00 -45.000 0.0000

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 0.00000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 82910.26 FY = -339566.8FZ = 182374.9 MX = 9817525. MY = 1491478.MZ = -0.1904374E+08

SUMMATION POINT= 102.00 -45.000 0.0000

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 0.00000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 314324.9FY = 20175.92 FZ = 284204.7MX = -3299228.MY = -8118868. MZ = 0.1373567E+08SUMMATION POINT= -102.00 -45.000 0.0000 ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = 102 to 222 Lines 8 to 10 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = 102 to 222 FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 222.10 RESELECT KABS= 0. TOLERANCE= 0.120200E-05 255 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 160 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 255 SELECTED NODES BY ENOD COMMAND. Internal forces at x = 714.0 LINE E FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 443153.9FY = -229012.6FZ = 495881.5 MX = -8654263. MY = 0.1243183E+08 ΜZ = 0.2198581E+08

SUMMATION POINT= 714.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

255 NODES (OF 17051 DEFINED) SELECTED FROM 160 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

195 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

120 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 195 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 138730.0FY = -157162.8FZ = 289376.9 MX = 1426322.

MY = 6897289.

MZ = 4523608.

SUMMATION POINT= 510.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

120 SELECTED ELEMENTS BY NELE COMMAND.

195 NODES (OF 17051 DEFINED) SELECTED FROM

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

135 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

80 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 135 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -43617.36 FY = -146203.5 FZ = 266525.5 MX = 2241889. MY = 5433144.

MZ = 473371.9

SUMMATION POINT= 306.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

135 NODES (OF 17051 DEFINED) SELECTED FROM 80 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -205809.3FY = -147187.7FZ= 199915.2 MX = 5000049. MY = 1778515. MZ = -4387300.SUMMATION POINT= 102.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 162.000 . \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 268140.3 FY = 31297.67 FZ = 121944.4 MX = -0.1010383E+08MY = -616211.7MZ = 0.1181936E+08 SUMMATION POINT= -102.00 -45.000 162.00 15348 ELEMENTS (OF 15348 DEFINED) SELECTED BY EALL COMMAND. 17051 NODES (OF 17051 DEFINED) SELECTED BY NALL COMMAND. 

**ENERCON** 



USE LOAD STEP 3 SUBSTEP 0 FOR LOAD CASE 0 SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 1 CUMULATIVE ITERATION= 32 TIME/FREQUENCY= 3.0000 TITLE= Pad, HE(1), 20 Casks, 515 Kip West (W), Soft Rock (Nu = 0.23) SECTION THE PAD IN TO 4 NORTH-SOUTH Z-DIRECTION STRIPS Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip Z direction x = -102 to 102 Lines A to B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND.

Internal forces at Z = 222.0 LINE 10

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=0.00000-45.0000222.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 485139.4
FY = -89537.62
FZ = 35176.20
MX = 1146426.
MY = -0.1330304E+08

MZ = 7618603.

SUMMATION POINT= 0.0000 -45.000 222.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 162.0 LINE 9

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 RESELECT KABS= 0. TOLERANCE= 0.120020E-04

2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45,0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 386507.6 FY = -66094.50FZ = 175654.2 MX = 4602546. MY = -7007230. MZ = -0.1022179E+08

SUMMATION POINT= 0.0000 ~45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 102.0 LINE 8

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND RESELECT 102.10 KABS= 0. TOLERANCE= 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

## F SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=0.00000-45.0000102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 417575.5 FY = -37334.19 FZ = 302874.6

MX = 7148916. MY = -2200719. MZ = -0.2104103E+08

SUMMATION POINT= 0.0000 -45.000 102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=0.00000-45.0000-102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 265417.6FY = -17636.15FZ = 666023.7

MX = 9627757.

MY = 2844767.



MZ = -0.1181380E + 08

SUMMATION POINT= 0.0000 -45.000 -102.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 RESELECT KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -306.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 123389.8FY = -29161.28FZ = 822423.7 MX = 9251839.

MY = 6646168.

MZ = -8278006.

SUMMATION POINT= 0.0000 -45.000 -306.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -510.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -14584.73FY = -46264.74FZ = 801460.7 MX = 9141509. MY = 9345098. MZ = -5397153.SUMMATION POINT= 0.0000 -45.000 -510.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -714.0 LINE 4 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05 650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -714.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -155691.2FY = -54530.42FZ = 602041.7



MX = 9205670. MY = 0.1113584E+08MZ = -1283615.

SUMMATION POINT= 0.0000 -45.000 -714.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 RESELECT KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -918.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -309161.6FY = -10482.14FZ = 175628.2MX = 6245432.MY = 0.1386565E+08

MZ = 0.1020546E+08

SUMMATION POINT= 0.0000 -45.000 -918.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = -407805.5
FY = 12900.66
FZ = 35161.03
MX = 4210606.
MY = 0.1348912E+08
MZ = -7634811.

SUMMATION POINT= 0.0000 -45.000 -978.00

SELECT ALL 'NODES HAVING ANY ELEMENT IN ELEMENT SET.

50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -1038.0 LINE 1

RESELECT · FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 0.00000 -45.0000 -1038.00

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 485070.5
FY = -89400.66
FZ = -35161.03
MX = -1141566.
MY = 0.1329716E+08
MZ = 7634811.
SUMMATION POINT= 0.0000 -45.000 -1038.0
next strip x = 102 to 306 Lines B to C

Select all nodes in pad only



ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip Z direction

FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND.

Internal forces at Z = 222.0 LINE 10

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 222.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 659925.8FY = -138349.1FZ = 114867.2 MX = -4786930.MY = -0.2039462E+08MZ = 4774883.

SUMMATION POINT= 204.00 -45.000 222.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 162.0 LINE 9

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04

2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=204.000-45.0000162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 606235.0
FY = -124491.3
FZ = 147385.4
MX = 616738.0
MY = -0.1801089E+08
MZ = -5897805.

SUMMATION POINT= 204.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 102.0 LINE 8

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS= 0. TOLERANCE= 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 102.000

****	۲ (	SUMMATION OF TOTAL	FORCES	AND	MOMENTS	IN	GLOBAL	COORDINATES	* * * * *
FX	=	659653.8							
FY	=	-108911.2							
FΖ	=	171637.8							
MX	=	5646197.							
MY	=	-0.1326017E+08							
MZ	=	-0.1011285E+08							

SUMMATION POINT= 204.00 -45.000 102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 RESELECT KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 420408.6FY = -34261.00FZ = 365078.2 MX = 9000132. MY = -5438256. MZ = -6691775.

SUMMATION POINT= 204.00 -45.000 -102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

#### ENERCON SERVICES, INC.

SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -306.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 158195.9 FY = -26702.45 FZ = 439505.4 MX = 8063461. MY = 1816148. MZ = -5622658.

SUMMATION POINT= 204.00 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

#### Sheet 164 of 205

## ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -510.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -93457.14FY = -26763.80 FZ= 429139.7 MX = 8321882. MY = 6716164.MZ = -4665837. SUMMATION POINT= 204.00 -45.000 -510.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -714.0 LINE 4 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS = 0. TOLERANCE = 0.324200E-05650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= . 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -714.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -355887.2FY = -12853.64FZ = 334005.6 MX = 9758534. MY = 9668099. MZ = -3230802. SUMMATION POINT= 204.00 -45.000 -714.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

#### ENERCON SERVICES, INC.

SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

Internal forces at Z = -918.0 LINE 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -918.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -528955.2 FY = 47713.07 FZ = 147368.4

MX = 5728477. MY = 0.1604679E+08 MZ = 5921928.

SUMMATION POINT= 204.00 -45.000 -918.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -978.0 LINE 2

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06

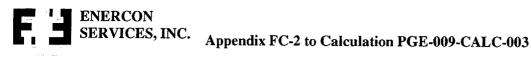
50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 204.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -582620.6FY = 60698.38 FZ = 114669.4MX = 1166434. MY = 0.1687949E+08 MZ = -4716822.SUMMATION POINT= 204.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -1038.0 LINE 1 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 204.000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 659885.6FY = -137198.4FZ = -114669.4MX = 4770469. = 0.2039569E+08 MY MZ = 4716822.SUMMATION POINT= 204.00 -45.000 -1038.0 next strip x = 306 to 510 Lines C to D Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 17051 DEFINED) SELECTED FROM 11550 NODES (OF 9056 SELECTED ELEMENTS BY NELE COMMAND.



select strip Z direction

FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 510.10 RESELECT KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND.

Internal forces at Z = 222.0 LINE 10

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 222.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 698094.9FY = -161089.7FZ = 170501.6 MX = -7840343. MY = -0.2021427E+08MZ = 8990055.

SUMMATION POINT= 408.00 -45.000 222.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 162.0 LINE 9

FOR ITEM=LOC COMPONENT=Z RESELECT BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04 2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

2975 SELECTED NODES BY ENOD COMMAND.

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#### SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 620663.1 FY = -127464.7FZ = 162732.0MX = -729466.9MY = -0.1766746E+08 MZ = -4439574. SUMMATION POINT= 408.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 102.0 LINE 8 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS= 0. TOLERANCE= 0.114020E-04 2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 102.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 661516.8 FY = -96668.44FZ = 151294.7 MX = 4235683. MY = -0.1286054E+08MZ = -9692209.SUMMATION POINT= 408.00 -45.000 102.00

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SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90 KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=408.000-45.0000-102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 407905.0
FY = -28907.06
FZ = 164180.9
MX = 6610726.
MY = -4616462.
MZ = -6188160.

SUMMATION POINT= 408.00 -45.000 -102.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -306.0 LINE 6

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 KABS= 0. TOLERANCE= 0.732200E-05

1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

1800 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -306.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 150771.1FY = -24652.87FZ = 130551.7 MX = 5040765. MY = 2369790. MZ = -5619281.SUMMATION POINT= 408.00 -45.000 -306.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -510.0 LINE 5 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05 1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT . ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -510.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -92765.83FY = -26333.99 FZ = 133764.2 MX = 5257312.MY = 7132871. MZ = -5217576.

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

SUMMATION POINT= 408.00 -45.000 -510.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -714.0 LINE 4

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS = 0. TOLERANCE = 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -714.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -352081.8FY = -11005.29FZ = 173906.4 MX = 7185333. MY = 0.1020948E+08MZ = -4344187.

SUMMATION POINT= 408.00 -45.000 -714.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 RESELECT KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

#### ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -918.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -543411.250910.74 FY = FZ = 162721.9 MX = 4626158. MY = 0.1725491E+08MZ = 4448484. SUMMATION POINT= 408.00 -45.000 -918.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -978.0 LINE 2 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06 50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -620788.1 FY = 84782.94

FZ = 170539.2 MX = -461989.5

ENERCON SEDUT SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 MY = 0.1935847E+08MZ = -9008117. SUMMATION POINT= 408.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -1038.0 LINE 1 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 408.000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 698053.1FY = -161282.9FZ = -170539.2MX = 7843966. MY = 0.2020677E+08MZ = 9008117. SUMMATION POINT= 408.00 -45.000 -1038.0 next strip x = 510 to 714 Lines D to E Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip Z direction

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 714.10 KABS= 0. TOLERANCE= 0.204200E-05

3000 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

#### Sheet 174 of 205

# ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

2830 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 3000 SELECTED NODES BY ENOD COMMAND. Internal forces at Z = 222.0 LINE 10 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 221.90 AND 222.10 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 222.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 675600.1FY = -166999.3FZ = 210025.5 MX = -0.1239483E+08MY = -0.1990065E+08MZ = 9506563. SUMMATION POINT= 612.00 -45.000 222.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 3000 NODES (OF 17051 DEFINED) SELECTED FROM 2830 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = 162.0 LINE 9 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 162.10 KABS= 0. TOLERANCE= 0.120020E-04 2975 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2810 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2975 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=Z BETWEEN 161.90 AND 162.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 448029.9

FY	=	-169773.0
FZ	=	87465.81
MX	=	-6106951.
MY	=	-8578059.
ΜZ	=	-6759482.

SUMMATION POINT= 612.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2975 NODES (OF 17051 DEFINED) SELECTED FROM 2810 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = 102.0 LINE 8

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND 102.10 KABS = 0. TOLERANCE = 0.114020E-04

2950 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

2790 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2950 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 102.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 442063.3

FY = -188251.3FZ = -29677.21 MX = 411313.7 MY = -2760075.

MZ = -0.1575923E+08

SUMMATION POINT= 612.00 -45.000 102.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

2950 NODES (OF 17051 DEFINED) SELECTED FROM 2790 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -102.0 LINE 7

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -101.90

KABS= 0. TOLERANCE= 0.936200E-05

2375 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2240 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2375 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -102.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 259841.6FY = -69930.14FZ = -177759.3MX = 2841897.MY = 807833.7 ΜZ = -8481952.SUMMATION POINT= 612.00 -45.000 -102.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2375 NODES (OF 17051 DEFINED) SELECTED FROM 2240 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -306.0 LINE 6 FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -305.90 RESELECT KABS= 0. TOLERANCE= 0.732200E-05 1800 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1690 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1800 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -305.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -306.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 117168.2 FY = -53779.19 FZ = -273880.1 MX = 602800.0 MY = 4010150. MZ = -7280343.

SUMMATION POINT= 612.00 -45.000 -306.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1800 NODES (OF 17051 DEFINED) SELECTED FROM 1690 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -510.0 LINE 5

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -509.90 KABS= 0. TOLERANCE= 0.528200E-05

1225 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1140 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1225 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -509.90 KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=612.000-45.0000-510.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -17438.37

- FY = -48576.24
- FZ = -262617.3
- MX = 1003494.
- MY = 6694238.MZ = -6508704.

SUMMATION POINT= 612.00 -45.000 -510.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1225 NODES (OF 17051 DEFINED) SELECTED FROM 1140 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -714.0 LINE 4

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -713.90 KABS= 0. TOLERANCE= 0.324200E-05

650 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

590 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 650 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -713.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -714.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -162814.5FY = -21174.34FZ= -143084.3 MX = 4216598.

- MY = 9485942.
- MZ = -4942295.

SUMMATION POINT= 612.00 -45.000 -714.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

650 NODES (OF 17051 DEFINED) SELECTED FROM 590 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at Z = -918.0 LINE 3

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -917.90 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0

MOMENT SUMMATION LOCATION= 612.000 -45.0000 -918.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -370765.1FY = 93264.46FZ = 87452.69 MX = 1784874. MY = 0.1598639E+08MZ = 6759374. SUMMATION POINT= 612.00 -45.000 -918.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at Z = -978.0 LINE 2 RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -977.90 KABS= 0. TOLERANCE= 0.602000E-06 50 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 20 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 50 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -978.10 AND -977.90 KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*

FX = -598333.6
FY = 90506.00
FZ = 210011.0
MX = -4668900.
MY = 0.1831804E+08
MZ = -9507463.
SUMMATION POINT= 612.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

50 NODES (OF 17051 DEFINED) SELECTED FROM 20 SELECTED ELEMENTS BY NELE COMMAND.

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 Internal forces at Z = -1038.0 LINE 1 FOR ITEM=LOC COMPONENT=Z BETWEEN -1038.1 AND -1037.9 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 25 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 612.000 -45.0000 -1038.00 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 675598.6 FY = -167006.0FZ= -210011.0 MX = 0.1239426E+08 MY = 0.1989993E+08 MZ = 9507463. SUMMATION POINT= 612.00 -45.000 -1038.0 SECTION THE PAD IN TO 7 EAST-WEST X-DIRECTION STRIPS Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = -1038 to -918 Lines 1 to 3 FOR ITEM=LOC COMPONENT=Z RESELECT BETWEEN -1038.1 AND -917.90 KABS= 0. TOLERANCE= 0.120200E-05 255 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 160 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 255 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

. . . . . . . . . . . . . . .

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 588775.0FY = -245557.2FZ = -291206.2MX = 2211052. MY = -8563521.MZ = 0.2745872E+08SUMMATION POINT= 714.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 255 NODES (OF 17051 DEFINED) SELECTED FROM 160 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 510.0 LINE D RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05 195 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 120 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 195 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 383110.7FY = -214475.4FZ = -360687.5 MX = -2906128. MY = -0.1096055E+08

MZ = 5549611.

SUMMATION POINT= 510.00 -45.000 -978.00

Sec.

# ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

195 NODES (OF 17051 DEFINED) SELECTED FROM 120 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

135 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

80 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 135 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -978.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 178486.7FY = -229378.1FZ =-362307.1 MX = -4150946. MY = -9478231.MZ = -4897925.

SUMMATION POINT= 306.00 -45.000 -978.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

135 NODES (OF 17051 DEFINED) SELECTED FROM 80 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

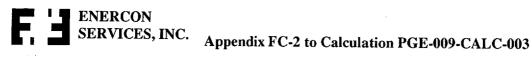
SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

75 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -54465.06FY = -147441.7FZ = -292592.4MX = -3543731. MY = -5844667.MZ = -0.2198856E+08SUMMATION POINT= 102.00 -45.000 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -978.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 319589.9FY = -51072.54FZ = 169786.6 MX = -1376962. MY = -4909933.MZ = 0.1551675E+08-45.000 SUMMATION POINT= -102.00 -978.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -918 to -714 Lines 3 to 4

" married



Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -918 to -714

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -918.10 AND -713.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -816.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 888726.3FY = -613179.0FZ = -190980.9 MX = 2215701. MY = -3218524.MZ = 0.3954502E+08

SUMMATION POINT= 714.00 -45.000 -816.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -816.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 489562.0FY = -543988.6FZ = -466041.9MX = -720594.7MY = -0.1311663E+08MZ = 3583756.

SUMMATION POINT= 510.00 -45.000 -816.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

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NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 358032.3FY = -530276.5 FZ = -536423.2MX = -1389393.MY = -0.1343559E+08 MZ = -0.1668333E+08 SUMMATION POINT= 306.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 102.0 LINE B RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05 600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT 550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. ·NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 155202.7FY = -511651.1FZ = -392964.6 MX = -2607676.MY = -8696690. MZ = -0.4486682E+08SUMMATION POINT= 102.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -816.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 449328.9FY = 28906.73 FZ = 152428.7 MX = 3072466. MY = -3709047.MZ = 0.1970784E+08SUMMATION POINT= -102.00 -45.000 -816.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -714 to -510 Lines 4 to 5 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = -714 to -510RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -714.10 AND -509.90 KABS= 0. TOLERANCE= 0.204200E-05 2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM

2310 SELECTED NODES BY ENOD COMMAND. Internal forces at x = 714.0 LINE E FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 -612.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 965305.5 FY = -653060.8 FZ= -88363.121189939. MX = MY = -1577482.MZ = 0.4308067E+08SUMMATION POINT= 714.00 -45.000 -612.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 510.0 LINE D RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05 1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS = 0. TOLERANCE = 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -612.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 482354.9FY = -553517.1 FZ = -218199.5

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MX = -285184.8MY = -5066275.

MZ = 3422876.

SUMMATION POINT= 510.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 37.2678.4FY = -540636.8FZ = -270920.7MX = -827553.4MY = -6802479. MZ = -0.1750906E+08

SUMMATION POINT= 306.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 184325.8 FY = -539357.2 FZ = -191488.7 MX = -1466505. MY = -5116964. MZ = -0.4730094E+08

SUMMATION POINT= 102.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -612.000

\*\*\*\*\* SUMMATION OF TOTAL FX = 465411.2 FY = 15088.69 FZ = 75488.03 MX = 732514.6 MY = -1690695. MZ = 0.2051609E+08 SUMMATION POINT= -102.00 -45.000 -612.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

next strip z = -510 to -306 Lines 5 to 6

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY . 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -510 to -306

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -510.10 AND -305.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

 NODE FOR MOMENT SUMMATION=
 0

 MOMENT SUMMATION LOCATION=
 714.000
 -45.0000
 -408.000

 \*\*\*\*\*
 SUMMATION OF TOTAL
 FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*

 FX =
 989013.6
 FY =
 -661832.0

 FZ =
 11.93679
 MX =
 -87.41141

 MY =
 252.4810
 MZ =
 0.4418930E+08

 SUMMATION POINT=
 714.00
 -45.000
 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

15348 DEFINED) SELECTED FROM 1650 ELEMENTS (OF 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -408.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 497106.3 FY = -555913.6FZ = 22.17282MX = 459.0239 MY = 425.7515 M7. = 3455052.

SUMMATION POINT= 510.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

BETWEEN 305.90 AND 306.10

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FOR ITEM=LOC COMPONENT=X

RESELECT

KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -408.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 378020.6FY = -541933.5FZ = 29.97590 MX = 2002.280 MY = 491.1833MZ = -0.1766020E + 08SUMMATION POINT= 306.00 -45.000 -408.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 102.0 LINE B RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05 600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 -408.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 181249.8FY = -544840.6 FZ = 34.68612 MX = 5916.936 MY = 600.1161MZ = -0.4770607E + 08

SUMMATION POINT= 102.00 -45.000 -408.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= Ο MOMENT SUMMATION LOCATION= -102.000 -45.0000 -408.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 474331.7FY = 14190.67FZ = -22.18589MX = -3179.364MY = 1032.325MZ = 0.2095249E+08SUMMATION POINT= -102.00 -45.000 -408.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = -306 to -102 Lines 6 to 7 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = -306 to -102RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -306.10 AND -101.90 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION=0MOMENT SUMMATION LOCATION=714.000-45.0000-204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*
FX = 965296.1
FY = -653053.1
FZ = 88385.63
MX = -1190109.
MY = 1577968.
MZ = 0.4308026E+08

SUMMATION POINT= 714.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

'RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10
KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FX = 482339.9 FY = -553504.1 FZ = 218236.9 MX = 286146.0 MY = 5067080. MZ = 3424845. FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\*

SUMMATION POINT= 510.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 372638.5 FY = -540619.4 FZ = 270975.8 MX = 834466.7 MY = 6802922. MZ = -0.1750388E+08

SUMMATION POINT= 306.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 RESELECT KABS= 0. TOLERANCE= 0.204200E-05

600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND.

BETWEEN 101.90 AND 102.10 RESELECT FOR ITEM=LOC COMPONENT=X KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 102.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 184299.7FY = -539456.7FZ = 191565.3 MX = 1479392.MY = 5118581. MZ = -0.4729576E + 08-45.000 SUMMATION POINT= 102.00 -204.00

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 -204.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 465437.2FY = 15091.18FZ = -75542.73MX = -737028.91693019. MY = MZ = 0.2051751E+08

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# ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

SUMMATION POINT= -102.00 -45.000 -204.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND.

next strip z = -102 to 102 Lines 7 to 8

Select all nodes in pad only

ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1

9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND.

ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. SELECT

11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND.

select strip x direction z = -102 to 102

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

2310 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

2200 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 2310 SELECTED NODES BY ENOD COMMAND.

· Internal forces at x = 714.0 LINE E

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 0.00000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 888709.3 FY = -613165.8FZ = 190998.9

MX = -2215743.

MY = 3219004.

MZ = 0.3954428E+08

SUMMATION POINT= 714.00 -45.000 0.0000

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

2310 NODES (OF 17051 DEFINED) SELECTED FROM 2200 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 510.0 LINE D

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05

1740 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

1650 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1740 SELECTED NODES BY ENOD COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 KABS= 0. TOLERANCE= 0.200000E-08

30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 0.00000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 489521.5 FY = -543951.2FZ = 466054.2MX = 719271.9 MY = 0.1311782E+08

MZ = 3587563.

SUMMATION POINT= 510.00 -45.000 0.0000

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

1740 NODES (OF 17051 DEFINED) SELECTED FROM 1650 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 306.0 LINE C

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05

1170 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

#### Sheet 200 of 205 ENERCON ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 1100 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 1170 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 306.000 -45.0000 0.00000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 357939.3 FY = -530033.2 FZ = 536282.0MX = 1372891.MY = 0.1343847E+08 MZ = -0.1665954E+08SUMMATION POINT= 306.00 -45.000 0.0000 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 1170 NODES (OF 17051 DEFINED) SELECTED FROM 1100 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 102.0 LINE B RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05 600 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. SELECT 550 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 600 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 0.00000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 155164.7 FY = -511525.0 FZ = 392968.4

**ENERCON** SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003 MX = 2596326. MY = 8693138. MZ = -0.4488244E+08SUMMATION POINT= 102.00 -45.000 0.0000 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = -102.0 LINE A FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 30 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 0.00000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 449361.5 FY 28879.31 = FZ = -152488.5MX = -3072808.MY = 3710956. MZ = 0.1970924E+08SUMMATION POINT= -102.00 -45.000 0.0000 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 600 NODES (OF 17051 DEFINED) SELECTED FROM 550 SELECTED ELEMENTS BY NELE COMMAND. next strip z = 102 to 222 Lines 8 to 10 Select all nodes in pad only ESEL FOR LABEL= TYPE FROM 1 TO 1 BY 1 9056 ELEMENTS (OF 15348 DEFINED) SELECTED BY ESEL COMMAND. SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 11550 NODES (OF 17051 DEFINED) SELECTED FROM 9056 SELECTED ELEMENTS BY NELE COMMAND. select strip x direction z = 102 to 222

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 101.90 AND 222.10 KABS = 0. TOLERANCE = 0.120200E-05 255 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 160 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 255 SELECTED NODES BY ENOD COMMAND. Internal forces at x = 714.0 LINE E FOR ITEM=LOC COMPONENT=X BETWEEN 713.90 AND 714.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 714.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 588755.1 FY = -245544.6FZ = 291212.0 MX = -2211281.MY = 8563483. MZ = 0.2745789E+08SUMMATION POINT= 714.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 255 NODES (OF 17051 DEFINED) SELECTED FROM 160 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 510.0 LINE D FOR ITEM=LOC COMPONENT=X RESELECT BETWEEN -102.10 AND 510.10 KABS= 0. TOLERANCE= 0.612200E-05 195 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 120 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 195 SELECTED NODES BY ENOD COMMAND. FOR ITEM=LOC COMPONENT=X BETWEEN 509.90 AND 510.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

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**EXERCISE** SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 510.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 383101.1FY = -214393.6FZ = 360683.4 MX = 2906636. MY = 0.1096028E+08MZ = 5553403. SUMMATION POINT= 510.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET. 195 NODES (OF 17051 DEFINED) SELECTED FROM 120 SELECTED ELEMENTS BY NELE COMMAND. Internal forces at x = 306.0 LINE C RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 306.10 KABS= 0. TOLERANCE= 0.408200E-05 135 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET. 80 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 135 SELECTED NODES BY ENOD COMMAND. RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN 305.90 AND 306.10 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. 0 NODE FOR MOMENT SUMMATION= MOMENT SUMMATION LOCATION= 306.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 178376.0FY = -227786.0FZ = 362329.1 MX = 4120781. MY = 9478483. MZ = -4899126. SUMMATION POINT= 306.00 -45.000 162.00 SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

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# ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

135 NODES (OF 17051 DEFINED) SELECTED FROM 80 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = 102.0 LINE B

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND 102.10 KABS= 0. TOLERANCE= 0.204200E-05

75 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

SELECT ONLY ELEMENTS COMPLETELY CONTAINED WITHIN NODE SET.

40 ELEMENTS (OF 15348 DEFINED) SELECTED FROM 75 SELECTED NODES BY ENOD COMMAND.

FOR ITEM=LOC COMPONENT=X BETWEEN 101.90 AND 102.10 RESELECT KABS= 0. TOLERANCE= 0.200000E-08

15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND.

NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= 102.000 -45.0000 162.000

\*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = -54500.00FY = -147427.7

- FZ = 292706.7 MX = 3565063.
- MY = 5851108.
- MZ = -0.2200143E+08

SUMMATION POINT= 102.00 -45.000 162.00

SELECT ALL NODES HAVING ANY ELEMENT IN ELEMENT SET.

75 NODES (OF 17051 DEFINED) SELECTED FROM 40 SELECTED ELEMENTS BY NELE COMMAND.

Internal forces at x = -102.0 LINE A

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -102.10 AND -101.90 KABS= 0. TOLERANCE= 0.200000E-08 15 NODES (OF 17051 DEFINED) SELECTED BY NSEL COMMAND. NODE FOR MOMENT SUMMATION= 0 MOMENT SUMMATION LOCATION= -102.000 -45.0000 162.000 \*\*\*\*\* SUMMATION OF TOTAL FORCES AND MOMENTS IN GLOBAL COORDINATES \*\*\*\*\* FX = 319615.2

ENERCON SERVICES, INC. Appendix FC-2 to Calculation PGE-009-CALC-003

FY	=	-51084.03
FZ	<b>=</b>	-169810.8
MX	=	1375007.
MY	=	4910569.
MZ	=	0.1551849E+08

SUMMATION POINT= -102.00 -45.000 162.00

15348 ELEMENTS (OF 15348 DEFINED) SELECTED BY EALL COMMAND.

17051 NODES (OF 17051 DEFINED) SELECTED BY NALL COMMAND.

EXIT THE ANSYS POST1 DATABASE PROCESSOR

\*\*\*\*\* ROUTINE COMPLETED \*\*\*\*\* CP = 59.345

\*\*\* NOTE \*\*\* CP= 59.345 TIME= 17:16:05 A total of 2 warnings and errors written to dcslabs9.err.