Table 13 Portion of the **equivellipse.NEW** file generated automatically by "GENTEXT" that corresponds to the GENOPT user's input listed in Table 3. This list forms part of the complete equivellipse.NEW file that appears in Table a10 of the appendix. The complete equivellipse.NEW file exists when the GENOPT user has completed the interactive "GENTEXT" session. This FORTRAN fragment forms part the FORTRAN library, begin.new, in particular, part of SUBROUTINE INPUT.

```
      CALL DATUM(IFILE, 10,1,2,npoint  , REALL,CHARAC,IOUT,0,0,0,IPROMP)
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, xinput = '
      WRITE(6,'(A)')
     1 '  vector element number for xinput'
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, xinput = '
         WRITE(IFILE8,'(A)')
     1 '  vector element number for xinput'
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      REWIND IFILE
      CALL DATUM(IFILE, 15,1,1,Ixinpu ,REALL,CHARAC,IOUT,0,0,0,IPROMP)
      IF (Ixinpu .EQ.0) GO TO  16
      DO  15  I=1,Ixinpu
      REWIND IFILE
      CALL DATUM(IFILE, 20,1,2,
     1    INT,xinput(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     xinput(I),   IPAR,  PAR,WORDP)
   15 CONTINUE
   16 CONTINUE
      CALL DATUM(IFILE, 25,1,2,   INT,ainput  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     ainput  ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 30,1,2,   INT,binput  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     binput  ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 35,1,2,nodes   , REALL,CHARAC,IOUT,0,0,0,IPROMP)
      CALL DATUM(IFILE, 40,1,2,   INT,xlimit  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     xlimit  ,    IPAR,  PAR,WORDP)
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, THKSKN = '
      WRITE(6,'(A)')
     1 '  vector element number for xinput'
      WRITE(6,'(A)')'   '
```

```
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, THKSKN = '
         WRITE(IFILE8,'(A)')
     1 '  vector element number for xinput'
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (Ixinpu .EQ.0) GO TO  46
      DO  45  I=1,Ixinpu
      REWIND IFILE
      CALL DATUM(IFILE, 45,1,2,
     1    INT,THKSKN(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     THKSKN(I),   IVAR,  VAR,WORDV)
   45 CONTINUE
   46 CONTINUE
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, HIGHST = '
      WRITE(6,'(A)')
     1 '  vector element number for xinput'
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, HIGHST = '
         WRITE(IFILE8,'(A)')
     1 '  vector element number for xinput'
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (Ixinpu .EQ.0) GO TO  51
      DO  50  I=1,Ixinpu
      REWIND IFILE
      CALL DATUM(IFILE, 50,1,2,
     1    INT,HIGHST(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     HIGHST(I),   IVAR,  VAR,WORDV)
   50 CONTINUE
   51 CONTINUE
      CALL DATUM(IFILE, 55,1,2,   INT,SPACNG  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     SPACNG  ,    IVAR,  VAR,WORDV)
      CALL DATUM(IFILE, 60,1,2,   INT,THSTIF  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     THSTIF  ,    IVAR,  VAR,WORDV)
      CALL DATUM(IFILE, 65,1,1,   INT,THKCYL  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     THKCYL  ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 70,1,1,   INT,RADCYL  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     RADCYL  ,    IPAR,  PAR,WORDP)
=================================================================
```