!=======================

/prep7 ! Define locations

! MATERIAL PROPERTIES

! \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

MPTEMP,1,0

MPDATA,EX,1,,2e11

MPDATA,PRXY,1,,0.3

MPDATA,DENS,1,,7800

! \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

cm,nmst,node

! NODES

! \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

N,1,0

N,2,0.25

N,3,0.5

N,4,0.75

N,5,1

N,6,1.25

N,7,1.5

N,8,1.75

N,9,2

N,10,2.25

N,11,2.5

N,12,2.75

N,13,3

N,14,3.25

N,15,3.5

N,16,3.75

N,17,4

N,18,0,-0.7

N,19,4,-0.7

N,20,1.5,0.3

N,21,2.5,0.3

! \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

!-------------------------------------Make innershaft

ET,1,BEAM188,,,2

SECTYPE,1,BEAM,CSOLID

SECDATA,0.2,20

TYPE,1

MAT,1

SECNUM,1

\*DO,I,1,16

E,I,I+1

\*ENDDO

TYPE,1

cm,einnershaft,elem ! Save as component einnershaft

esel,u,,,all

!-------------------------------------Make outrshaft

ET,1,BEAM188,,,2

SECTYPE,2,BEAM,CTUBE

SECDATA,0.3,0.4,20

TYPE,1

SECNUM,2

FLST,2,2,1

FITEM,2,6

FITEM,2,7

E,P51X

FLST,2,2,1

FITEM,2,7

FITEM,2,8

E,P51X

FLST,2,2,1

FITEM,2,9

FITEM,2,8

E,P51X

FLST,2,2,1

FITEM,2,9

FITEM,2,10

E,P51X

FLST,2,2,1

FITEM,2,11

FITEM,2,10

E,P51X

FLST,2,2,1

FITEM,2,11

FITEM,2,12

E,P51X

cm,e outershaft,elem !Save as component outershaft

esel,u,,,all

!-------------------------------------Make disk

ET,1,BEAM188,,,2

SECTYPE,3,BEAM,CTUBE

SECDATA,0.4,1.4,35

TYPE,1

SECNUM,3

FLST,2,2,1

FITEM,2,9

FITEM,2,10

E,P51X

FLST,2,2,1

FITEM,2,8

FITEM,2,9

E,P51X

ET,2,MASS21

R,2,1.401,1.401,1.401,0.002,0.00136,0.00136

TYPE,2

REAL,2

E,4

cm,disk,elem !Save as component disk

esel,u,,,all

!-------------------------------------Make bearingright

ET,3,COMBI214

KEYOPT,3,2,1

KEYOPT,3,3,1

R,3,12.81e6,8.815e6,16.39e6,-25.06e6,232.9e3,294.9e3, ! COMBI214: r,

,kxx,kyy,kxy,kyx,cxx,cyy,

RMORE,-81.92e3,-81.92e3, ! rmore, cxy,cyx,

TYPE,3

REAL,3

FLST,2,2,1

FITEM,2,1

FITEM,2,18

E,P51X

cm,bearingright,elem !Save as component bearingright

esel,u,,,all

!-------------------------------------Make bearingleft

ET,3,COMBI214

KEYOPT,3,2,1

KEYOPT,3,3,1

R,3,12.81e6,8.815e6,16.39e6,-25.06e6,232.9e3,294.9e3, ! COMBI214: r,

,kxx,kyy,kxy,kyx,cxx,cyy,

RMORE,-81.92e3,-81.92e3, ! rmore, cxy,cyx,

TYPE,3

REAL,3

FLST,2,2,1

FITEM,2,17

FITEM,2,19

E,P51X

cm, bearingleft,elem !Save as component bearingleft

esel,u,,,all

!-------------------------------------Make tekyehright

ET,3,COMBI214

KEYOPT,3,2,1

KEYOPT,3,3,1

R,3,12.81e6,8.815e6,16.39e6,-25.06e6,232.9e3,294.9e3, ! COMBI214: r,

,kxx,kyy,kxy,kyx,cxx,cyy,

RMORE,-81.92e3,-81.92e3, ! rmore, cxy,cyx,

TYPE,3

REAL,3

FLST,2,2,1

FITEM,2,7

FITEM,2,20

E,P51X

cm, tekyehright,elem !Save as component tekyehright

esel,u,,,all

!-------------------------------------Make tekyehleft

ET,3,COMBI214

KEYOPT,3,2,1

KEYOPT,3,3,1

R,3,12.81e6,8.815e6,16.39e6,-25.06e6,232.9e3,294.9e3, ! COMBI214: r,

,kxx,kyy,kxy,kyx,cxx,cyy,

RMORE,-81.92e3,-81.92e3, ! rmore, cxy,cyx,

TYPE,3

REAL,3

FLST,2,2,1

FITEM,2,11

FITEM,2,21

E,P51X

ALLSEL,ALL