5. LOAD DATA GROUPS

5.1 PRESSURE LOADS

PRESSURE	*ID*	*LCS ID*	*Dir*	*Value*	*Element Faces*

ID Identification number for pressure (positive integer)

LCS ID Identification number for local coordinate system

Dir Pressure load direction

=N for a direction normal to the element.

=X Load in local X-direction

=Y Load in local Y-direction

=Z Load in local Z-direction

Value The magnitude. A uniform load can be specified as a numerical value and a variable load may be specified as explained in section 9.0

Element Faces List of element faces. (See section 8.0)

Eg:- PRESSURE, 1, 0, 0, 0.5, 1T10(F2)/25(F3)/30(F3)

A normal pressure load of 0.5 on face 2 of elements 1 to 10 and face 3 of elements 25 and 30

5.2 ELEMENT EDGE LOAD

EDGELOAD	*ID*	*LCS ID*	*Dir*	*Value*	*Element Edges*

ID Identification number for Element edge load (positive integer)

LCS ID Identification number for local coordinate system.

Dir Edge load direction

=EN Normal to the element edge

=ET Tangential to the element-edge

=EZ Normal to the element-face.

=X Local X direction

=Y Local Y direction

=Z Local Z direction

Value Magnitude (Load per unit length). A uniform load can be specified as a numerical value and a variable load as explained in section 9.0

Element Edges List of element edges. (See section 8.0)

Eg:- EDGELOAD, 1, 0, EN, -0.4, 5T15B5(D2)

An edge load of magnitude -0.4, normal to edge 2 of elements 5, 10 and 15

5.3 ACCEL - ACCELERATION

ACCEL	*ID*	*Value*	*LCS ID*	*Dir*	*Element IDs*

ID Identification number for acceleration (positive integer)

Value Magnitude of the load

LCD ID Identification number for local coordinate system

Dir Direction of acceleration

= X Acceleration in X direction

= Y Acceleration in Y direction

= Z Acceleration in Z direction

Element IDs List of elements (See section 7.0)

Eg:- ACCEL, 1, 0, X, 0.5,32T38

5.4 BF - BODY FORCE

BF	*ID*	*LCS ID*	*Dir*	*Magnitude*	*Element IDs*

ID	Identification number for body force (positive integer)
LCS ID	Identification number for Local coordinate system
Dir	Body force direction
	= X Body force in X-direction
	= Y Body force in Y-direction
	= Z Body force in Z-direction
Magnitude	Value of the load
Element IDs	List of element Ids (Section 7.0)
Eg:-	**BF, 1, 0, X, .12, ALL**

5.5 CF - CENTRIFUGAL LOADS

CF	*ID*	*Omega*	*LCS ID*	*Dir*	*Element IDs*

ID Identification number for centrifugal loads (positive integer)

Omega Angular Velocity

LCS ID Identification number for Local coordinate system

Dir Centrifugal loads direction

= X centrifugal loads in X-direction

= Y centrifugal loads in Y-direction

= Z centrifugal loads in Z-direction

Element IDs List of element Ids (Section 7.0)

Eg: CF,1, 0.012, 0,Y, 24T31

5.6 PLOAD - POINT LOADS

This data group defines the concentrated loads acting on node(s).

PLOAD	*ID*	*LCS ID*	*Dir*	*Data*	*Node IDs*

ID Identification number for point loads (positive integer)

LCS ID Identification number for local coordinate system (positive integer)

Dir Direction of force

= FX Force in X direction

= FY Force in Y direction

= FZ Force in Z direction

= RX Moment about X direction

= RY Moment about Y direction

= RZ Moment about Z direction

Data Magnitude

Node IDs List of nodes on which the forces are acting (see section 7.0)

Eg:- PLOAD, 1, 0, FY, -10.5, 31T36

5.7 THERMAL – NODAL TEMPERATURE

THERMAL	*ID*	*Temp. Data*	*Ref.Temp*	*Node IDs*

ID	Identification number for nodal temperature (positive integer)
Temp. Data	Temperature Data
Ref. Temp	Reference Temperature (Default : 300)
Node IDs	List of nodes where temperature is specified

Eg:- **THERMAL, 1, 46, 300, 542T544/560T563/614T616**