



MADYN 2000, Error Report June 16th 2015

No.	Release	Error description	Workaround	Status
1	4.0	Shafts with speed zero. The gyroscopic effect is not zero. This gives wrong results if a shaft has very large polar moment of inertia. Shafts with speed zero mainly occur in models using shaft in shaft connection, where the outer shaft may represent a stator.	Use a very low speed. However, this may have the disadvantage, that the low speed is also used as reference speed.	Solved in 4.0.17
2	All	Nonlinear transient analysis with modes of the supported shaft (note, this is not the recommended procedure): The shown RFB/FRB forces are only the nonlinear part of the force, not the complete force.	Use the modes of the free shaft as recommended.	Solved in 4.0.15
3	4.0	<u>RFB ALP3T variable adiabatic analysis with tilting pad bearings</u> : Temperatures are wrong to some extent due to wrong shear stresses in the pocket area. Pads with offset are mostly affected.		Solved in 4.0.15
4	4.0.	<u>Deletion of shaft without any other changes</u> does not correctly update the system. Previously shafts could not be deleted without deleting connections. This has been improved and connections are automatically deleted after a message. However, since this change the system is not correctly updated.	Apply any other change to the system after deletion of the shaft.	Solved in 4.0.10
5	3.0	Static support displacement load: Load is not correctly created for the case of <u>prescribed displacement in 3-direction (hor.) and free 2-direction (vert.)</u> .		Solved in 4.0.9



6	3.6	Geometry for <u>non-cylindrical</u> pressure dam bearing is wrong.	Modell pressure dam as hydrodynamic pocket.	Solved in 4.0.8
7	4.0	Geometry for <u>non-cylindrical</u> closed bearings is wrong.		Solved in 4.0.8
8	3.1	EIG, CDG with DBS in combinations with different bearing types does not work in some cases (e.g. DBS with RFB and DBS with RMB).		Solved in 4.0.7
9	3.7	EIG, CDG with DBS and RFB TFU (non-synchronous characteristic) does not work in some cases.		Solved in 4.0.7
10	3.7	HAR with RFB TFU (non-synchronous characteristic): RFB forces are not correctly calculated. This leads to wrong forces mainly at high frequencies.		Solved in 4.0.7
11	3.6	RFB geometry plot is wrong in case of negative preload.		Solved in 4.0.6
12	4.0.0	RFB closed bearing: The reference pressure for the solution of gas in the oil is set wrong in ALP3T. This causes too much cavitation. The influence on rotordynamic coefficients is relatively small.		Solved in 4.0.6
13	4.0.0	Standalone Squeeze film damper (imported as standard bearing): The nonlinear force in TRA can be calculated wrong in some cases (wrong reference speed).		Solved in 4.0.6



14	4.0.0	SAN speed rigid with shaft in shaft design: The results are wrong for cases, where the outer shaft has a bearing without cross coupling forces (e.g. a simple RSB).		Solved in 4.0.6
15	4.0.0	SAN speed dependent loads: The speed dependence is not considered in case of analysis with rigid bearings.		Solved in 4.0.6
16	4.0.0	Speed dependence of REB is not considered in case bearing loads are from SAN with rigid bearings.	Carry out SAN with non-rigid bearings.	Solved in 4.0.5
17	4.0.0	Nonlinear TRA with FRB analysis type DIN: The check box to calculate the speed dependent mean temperature from the linear DIN table for the nonlinear analysis does not work. As a consequence the analysis is always carried with constant temperature.		Solved in 4.0.3
18	4.0.1	For the nonlinear characteristics of fluid film bearings, the angles are not correctly stored. This leads to wrong results in transient analyses for characteristics, which have been calculated in version 4.0.1.		Solved in 4.0.2
19	4.0.1	FCP nonlinear rubber coupling: Changing the file with the nonlinear function does not delete the results of the nonlinear transient analyses with this function.	Delete the nonlinear function before loading a new function.	Solved in 4.0.2
20	3.7.5 to 3.7.7	Unbalance value in [gmm] defined by G imported from a batch processing file is not updated according to the rotor mass.	Open UNB GUI, click into any edit field and close the GUI.	Solved in 4.0.0



- 4 -

21	All	For axis symmetric elements, which contain conical sections and are mounted in – direction, the model (structure matrices) cannot be created.	Turn the axis symmetric element and mount it in + direction.	Solved in 4.0.0
22	All	Copy paste loads from different systems: In case the new system does not contain the stations of the system from which loads are copied, subsequent analyses crash.		Solved in 4.0.0