




11 Seizure

Phenomena, causes and countermeasures		Examples of failures
Phenomena	<ul style="list-style-type: none"> ■ Although scuffing and smearing can be categorized as seizure, scuffing is generally regarded as a more serious type of failure. The seizure described in this section is the kind in which bearing parts are melted and adhere to one another due to abnormal heat or the rolling surface becoming rough; as a result, the bearing can no longer rotate. · Once seizure occurs, the bearing cannot be used again because the hardness has deteriorated and smooth rotation is impossible on the rough surface. 	<ul style="list-style-type: none"> ■ Seizure of Cylindrical Roller Bearing Rollers are removed because pocket surface of cage has become worn  <p style="text-align: right; font-size: small;">(A-6457)</p> <ul style="list-style-type: none"> ■ Seizure of Cylindrical Roller Bearing with rib  <p style="text-align: right; font-size: small;">(A-6464)</p>
Causes	<p>Seizure results from abnormal heat generated by improper lubrication, excessive preload, or improper contact of rolling elements with the raceway surface, which cannot be compensated for by the cooling method or lubrication employed in the bearings.</p>	<ul style="list-style-type: none"> ■ Seizure of Tapered Roller Bearing Heat is generated on roller end face and inner ring rib face  <p style="text-align: right; font-size: small;">(A-6679)</p>
Countermeasures	<p>Causes should be investigated; and appropriate countermeasures corresponding to the results should be taken.</p>	