

APPENDIX IX

LOADING A ROLLER BEARING MOTOR

1. Install shaft sleeve and properly sized key on motor. Clamp motor and load wheel down to test pad. Make sure load wheel is not touching motor shaft.
2. Calculate required load from tables below (subtract half of the rotor weight from minimum recommended load).
3. Adjust the wheel so it is just touching the shaft, apply approximately 10 % of required load with the jack.
4. Start motor and adjust jack to your calculated required load (as a minimum).
5. Take bearing readings and monitor bearing temperatures.
6. Note on MOTORS REPAIR DATA SHEET that motor was tested with load wheel.

Minimum radial load requirements
Cylindrical roller bearings
200 EC series

Bearing	minimum radial load required @		
	900 rpm	1800 rpm	3600 rpm
204	24 lb.	25 lb.	27 lb.
205	32	33	36
206	45	48	52
207	62	65	72
208	76	83	93
209	92	99	112
210	108	116	131
211	132	143	164
212	160	174	202
213	183	211	248
214	204	235	280
215	225	261	310
216	261	307	368
217	299	355	429
218	339	405	494
219	383	463	568
220	429	522	648
221	514	588	735
222	572	658	
224	681	796	
226	797	938	
228	948	1126	
230	1117	1340	
232	1305	1585	
234	1485	1803	
236	1646	2025	
238	1872	2321	
240	2117	2646	

Minimum radial load requirements
Cylindrical roller bearings
300 EC series

Bearing	minimum radial load required @		
	900 rpm	1800 rpm	3600 rpm
304	28 lb.	29 lb.	31 lb.
305	41	43	46
306	56	59	65
307	72	76	84
308	79	84	95
309	115	124	141
310	143	156	182
311	197	216	254
312	216	239	285
313	240	266	320
314	280	314	382
315	322	364	448
316	367	417	517
317	415	475	593
318	467	537	678
319	524	606	
320	603	704	
321	670	788	
322	764	907	
324	914	1097	
326	1084	1316	
328	1248	1515	
330	1454	1790	
332	1688	2110	
334	1924	2426	
336	2117	2646	
338	2468		
340	2676		

Reference: SKF Bearing Handbook for Electric Motors, Publication 140-430





