



MZEU Series Clutches Installation and Maintenance Instructions for Models MZEU 12 - MZEU 150 With covers E1, E2, E3 and E4

Power Transmission Solutions

Regal Beloit America, Inc.
7120 New Buffington Road
Florence, KY 41042
Application Engineering: 800 626 2093
www.RegalPTS.com

FORM

PS-740-0001

4146-006E

Revised

October 2016

⚠ WARNING

- Read and follow all instructions carefully.
- Disconnect and lock-out power before installation and maintenance. Working on or near energized equipment can result in severe injury or death.
- Do not operate equipment without guards in place. Exposed equipment can result in severe injury or death.

⚠ CAUTION

- Periodic inspections should be performed. Failure to perform proper maintenance can result in premature product failure and personal injury.

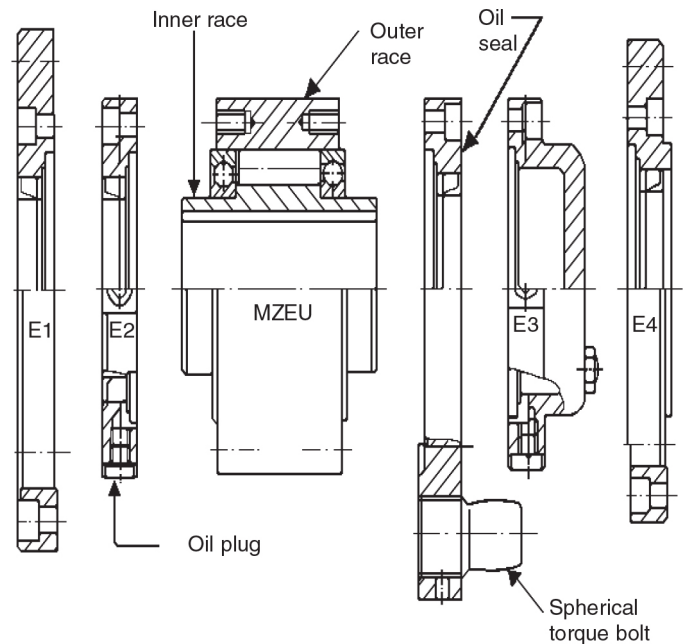
A. Preinstallation

Check overrunning direction of clutch before mounting. To change direction of rotation, turn clutch through 180°. If overrunning direction is incorrect in relation to cover plates, eg; MZEU E1-E2, remove both cover plates from the clutch, clean contacting face surfaces, replace gaskets and assemble covers on opposite side of previous clutch assembly.

Check fit of bore and shaft. Depending on operating conditions, the fit between the shaft and clutch bore can be selected to give either a push or press fit. For the shaft a tolerance of h7 is recommended. All MZEU clutches are manufactured with a bore tolerance of H 7.

Clutch Model	Clutch Bore Diameter		Clutch Bore Tolerance (H 7)
	MM	Inches	
MZEU12	12	0.4724	+0.0007 - .0000
MZEU15	15	0.5906	+0.0007 - .0000
MZEU20	20	0.7874	+0.0008 - .0000
MZEU25	25	0.9843	+0.0008 - .0000
MZEU30	30	1.1811	+0.0008 - .0000
MZEU35	35	1.3780	+0.0010 - .0000
MZEU40	40	1.5748	+0.0010 - .0000
MZEU45	45	1.7717	+0.0010 - .0000
MZEU50	50	1.9685	+0.0010 - .0000
MZEU55	55	2.1654	+0.0012 - .0000
MZEU60	60	2.3622	+0.0012 - .0000
MZEU70	70	2.7559	+0.0012 - .0000
MZEU80	80	3.1496	+0.0012 - .0000
MZEU90	90	3.5433	+0.0014 - .0000
MZEU100	100	3.9370	+0.0014 - .0000
MZEU130	130	5.1181	+0.0016 - .0000
MZEU150	150	5.9055	+0.0016 - .0000

Check fit of spherical bolt of cover plate E 3 (torque arm). It is important that the spherical bolt be a free fit in the hole of the machine body (.010 - .030 inch) in order to prevent clutch bearing fight.



MZEU basic type with covers E1 to E4.

For MZEU series Model NO. MZEU12 - 150 General rule of Installation and Usage for all models of MZEU series

- 1. First, check the parts and attached parts kit if you ordered standard E1 and E2 flange, E3 torque arm, or E4 cover.
- 2. The operational temperature is -40 to +40°C.
- 3. We recommend using a shaft tolerance of h7 for cam clutch installation.
- 4. DIN6885.1 keyway is standard.
- 5. Clean the surface of the outer race at both ends and the contact surfaces of the flanges, torque arm, cover or other torque transmitting factors.
- 6. Check the direction of rotation.
- 7. Install the standard parts (E1, E2 flange, E3 torque arm, or E4 cover) or other torque transmitting equipment by attached bolts.
- 8. By installing both parts on the opposite side, the direction of rotation can be changed.
- 9. Put in the pin, lock plug and set screw to E3 torque arm if you use it.
- 10. When mounting cam clutch onto the shaft, apply pressure to only the inner race. Do not hit the inner race directly with a hammer. And never hit or apply pressure on both parts.
- 11. Always use a parallel key for installation onto the shaft. Never use a tapered key.
- 12. For the high speed Indexing application (More than 50 c/m) a strong spring type is recommended.

Lubrication for MZEU12~80

- 1. The cam area is pre-greased and requires no lubrication. We recommend adding grease to the bearings.
- 2. Put in the zerk fitting and the setscrew to the standard parts.

Maintenance:

For the zerk fitting on the flange, the torque arm and the cover add grease every 3 months.

Note: The following are general lubrication recommendations based on our experience and are intended as suggested or starting points only. For best results, specific applications should be monitored regularly and lubrication intervals and amounts adjusted accordingly.

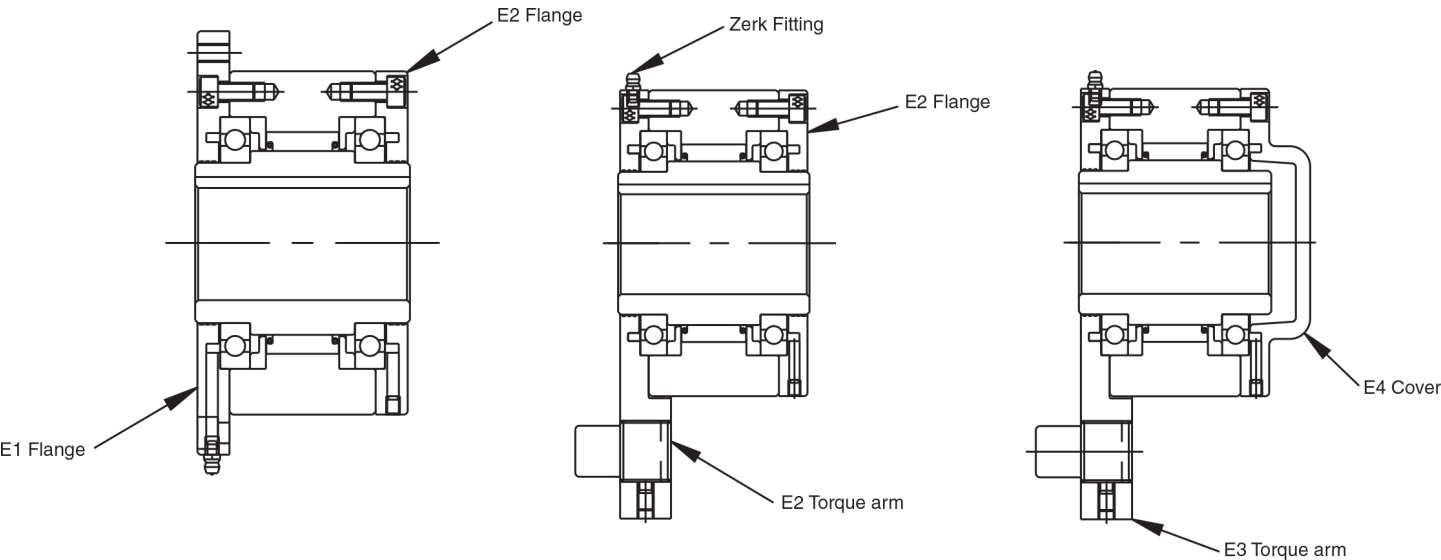
Surplus grease will come out from the slight space between the inner race and the standard parts, which is a normal condition.

Recommended grease:

CAUTION: Do not use grease that contains EP additives.

Ambient Temperature	
-5 - +40°C (+20 - +104 F)	-40 - +40°C (+40 - 104 F)
Exxon* Beacon 2	Exxon* Beacon 325
Mobilith* SHC100	Mobilith* SHC100
Shell Alvania* Grease RL	Aeroshell* 6 Grease RA

Installation Example 1



* The names referenced in the table above are believed to be the trademarks and/or trade names of their respective owners and are not owned or controlled by Regal Beloit Corporation.

B. Oil lubrication for MZEU90 - 150 and for MZEU12 - 80 with oil cover.

1. Basic clutch is supplied with sealing adhesive. Apply sealing adhesive to the surfaces of the outer race at both ends when mounting the standard parts to basic type cam clutch.
2. A key equal to length of inner race is required for proper support. Install key with push fit taking care that key seats squarely. For indexing applications fit key tight on width dimension to prevent loosening in service. Do not exceed .001 inch tight side fit.
3. Attach the packing and end plate using sealing washer and bolts before mounting E4 cover. Oil will come out through the keyway if this mounting method is not used.
4. Apply a suitable amount of oil before use.
5. As a general rule, the amount of lubricant should be level with the center of the shaft for overrunning and backstopping applications.
6. E2 flange has three plugs. Place the plugs, so that one is at the top and one is at the bottom. The center one should be level with the center of the shaft. Refer to the oil level drawing.
7. E4 cover has a large plug for adding oil and a small plug for draining.

Recommended oil:

Do not use lubricants of the EP type or those containing slippery additives such as molybdenum disulphide and graphite.

Oil Company	Ambient Temperature	
	-5 - +40°C (23 - +104°F)	-40 - +40°C (-40 - +104°F)
Chevron* (Texaco)	Texametic Fluid	Havoline Synthetic
Mobil*	ATF 220, Delvac 1310, DTE Oil Light	Mobil Synthetic ATF
Shell*	Dexron 2	
	Rotella Oil 10W	Rotella Synthetic
BP*	Dexron ATF	

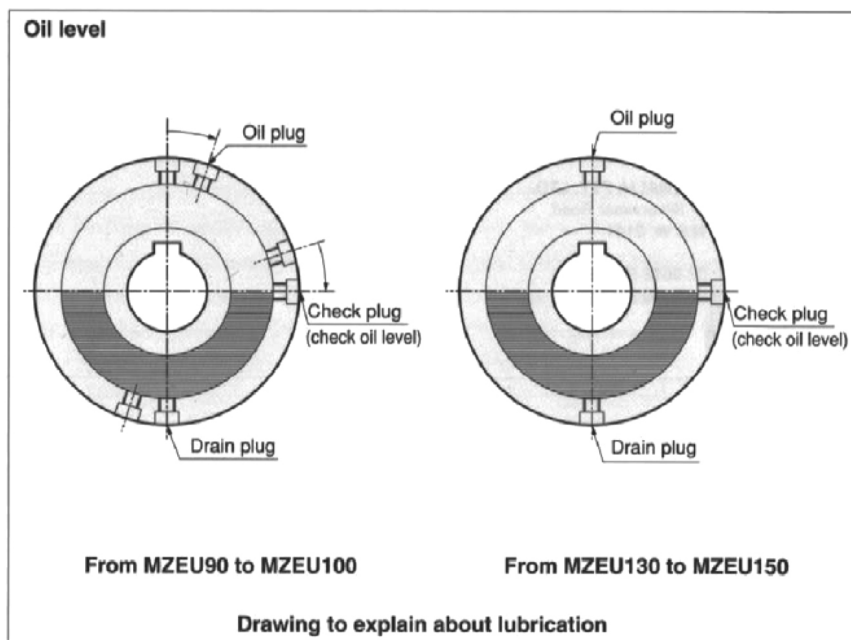
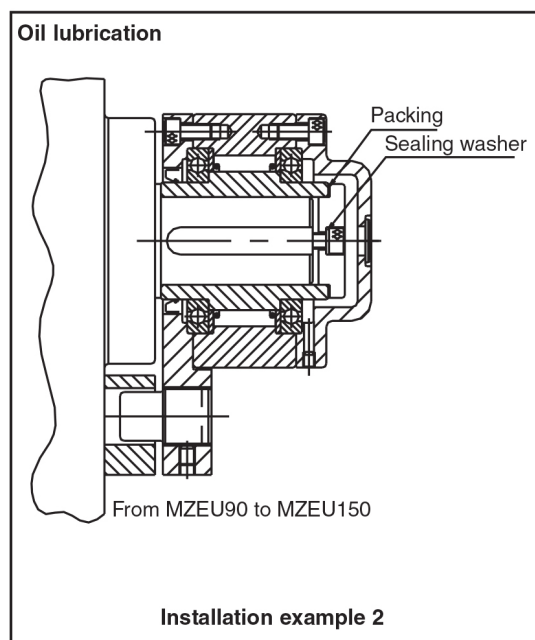
C. Maintenance

Initially, replace oil after 10 hours of operation, then replace it every three months. In a dirty environment, we recommend replacement every month.

D. General Information

1. Application Engineering: 1-800-626-2093.

CAUTION: Do not use the clutch above its torque or speed ratings. Do not attempt to take this clutch apart.



The names referenced in the table above are believed to be the trademarks and/or trade names of their respective owners and are not owned or controlled by Regal Beloit Corporation.

Morse is a registered trademark of Borg-Warner Corporation, used herein under exclusive license.
Regal is a trademark of Regal Beloit Corporation or one of its affiliated companies.
©2016 Regal Beloit Corporation, All Rights Reserved. MCIM16064E • Form 4146-006E • Printed in USA

