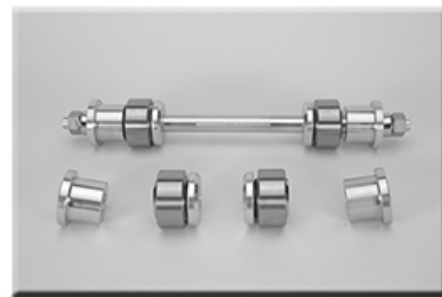




# Custom Cycle Engineering Co.

## INSTALLATION INSTRUCTIONS



New Swing Arm  
Assembly & Components

### INSTALLATION INSTRUCTIONS FOR FLT/FXR SWING ARM RETROFIT CONVERSION

(Please read instructions completely before attempting installation.)

Remove rear wheel by following the instructions in your service manual for **REAR WHEEL, REMOVAL**.

Remove rear swing arm by following the instructions in your service manual for **REAR SWING ARM REMOVAL**.

Press out the old Clevebloc assembly by following the instructions in your service manual. You will need a large arbor press or a hydraulic press to remove these bushings.

Once you have pressed the old Cleveblocs out of your swing arm, thoroughly clean the swing arm housing using a degreaser. Also clean or degrease the race of the new spherical bearing.

The stock swing arms are not a precision machined part but a weldment. Hence, there are tolerance variances from swing arm to swing arm and model year to model year.

The spherical bearings that you will be installing in your swing arm do not allow for much lateral tolerance variance. These bearings can bind up or have reduced movement with as little a 0.020 variance in the centerline.

With the tolerance variances in mind we have found it better to do a two step bearing installation on the swing arm. This procedure ensures the proper centerline tolerance for the spherical bearing installation and free movement of the swing arm.

Apply a coating of Red Loctite (626) that is supplied in the conversion kit to the swing arm housing and the race of one of the bearings. (Photo 1)

Using the Press Plug (aluminum) (Photo 2) press the spherical bearing and bearing spacer assembly into only one side of the swing arm.

**Note:** The 45 degree chamfered bearing carrier should butt up to the transmission housing or will be the leading part when you press the assembly into the swing arm. (Photo 3)



(1)



(2)



(3)



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Bottom the Press Plug out against the face of the swing arm. (Photo 4 & 5)

This positions the bearing in the proper location on the swing arm.

Allow the Loctite to set up for at least two hours.

Later apply a coating of Loctite to the second spherical bearing and bearing spacer assembly and also a coating to the swing arm housing.

Using the Press Plug, press the second assembly into the swing arm.

Bottom out the Press Plug against the swing arm housing.

Before the Loctite has a chance to set-up in the second swing arm bore, check-fit the swing arm to make sure that it fits in between the transmission housing. It should be a snug fit and you may have to align the bearings to fit it into the housing. If there is any tolerance variance, the second spherical bearing assembly should suck up to the transmission housing and align the bearings to the exact centerline.

If the swing arm bearing assembly is too tight and the swing arm will not fit in between the transmission housing, lightly tap the second bearing assembly to allow for more clearance.

Continue installation of the swing arm but you will eliminate three stock parts from the original assembly. The two Nylon Spacer Discs, the two Plastic Retaining Rings and the two thin Chrome Steel Spacers will no longer be necessary in the new swing arm conversion. (Photo 6)

Follow the instructions for Installation of the swing arm in your Service Manual. The pivot shaft should be tightened to 40-45 ft-lbs. Note: There are 2 steel cupped washers supplied in the kit. They must be assembled with the counter bore and taper facing the bearing assembly and transmission housing. The flat side of the washer should butt up to the nuts. Otherwise the bearing and pivot shaft will not tighten up to the transmission. Use a blue Loctite to secure the nuts on the swing arm pivot shaft.

Custom Cycle Engineering highly recommends replacing the old Rubber Mount Isolators (H-D P/N 47564-86B) when installing the new Swing Arm Conversion. (Photo 7)

An ampoule of Loctite ANTI-SEIZE is included in the swing arm retrofit conversion to coat the pivot shaft before reinstallation.



(4)



(5)



(6)



(7)



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## INSTALLATION INSTRUCTIONS

### Installation Instructions for 2002 and up FLH Swingarm Retrofit Kit SAR 2008-1 & SAR 2008-2

**Note:** In order to use this kit you must press out the stock spherical bearings and spacers from the 2002 and up swingarm. If your new swingarm does not have bearings installed in the new swingarm, you must purchase 2 of P/N 9208-spherical bearings from a Harley Dealer.

#### Bearing Removal:

Using the hydraulic press, place 2002 and up swingarm on it's side with the brake side anchor weldment facing up.

Support the swingarm with a block of wood and a large socket or spacer ring so the swingarm is square and the bearing is completely vertical.

Using a socket and long socket extension, slide the socket extension through the brake side swingarm tube and bearing until it contacts the socket and the inboard side of the drive side bearing.

Center the long socket extension under the ram of the press and press the drive side bearing from the rear swingarm.

Flip the swingarm over and drive out the bearings on the brake side.





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### Bearing and Spacer Removal:

With the bearings (P/N 9208) and spacers removed from the new swingarm, you must press out the stock spherical bearings from the stock spacers (3/4"ID)

When you have the spherical bearings pressed off the stock spacers, use a small amount of 262 red loctite on the new bearing spacer (P/N SAR 2008 5/8" ID) and press the stock spherical bearing on to the new bearing spacer.

Allow about one hour for the loctite to set up.

Now that the stock spherical bearings are pressed on to the new bearing spacers, set the swingarm back up in the press supported by the wood spacer and socket.

There are two bearing installation tools supplied in the Retrofit Kit:

- 1- Is for the brake side bearing installation
- 2- Is for the drive side bearing installation

Make sure that the bearing spacer is facing inboard of the swingarm when installing the bearing assembly.

Install the brake side bearing.

Flip the swingarm over and install the drive side bearing.

Make sure that you use the proper bearing installation tool, the depth of the bearings are critical.

For further back up on installation or removal, check a 2002 or up service manual for touring models.

