P91 Fleet-Lift Ring Clutch

1.0 Scope

1.1 This document defines the procedure for plant inspection and maintenance for lifting hardware

2.0 Purpose

2.1 To receive and inspect all new and returning product to ensure that all units entering the inventory meet design specifications and are functional.
2.2 To check for worn or damaged parts
2.3 To establish preventive maintenance control and maintain historical records for maintenance activity.

3.0 Procedure

3.1 Inspect the Ring Clutch to determine its general condition and degree of wear
3.2 Check to make certain that the bail rotates freely in all directions
3.3 During monthly inspection, check for evidence of heat applications. If evidence of heat application is present, scrap unit.
3.4 Check for bent or twisted bails. Do not attempt to straighten. Discard units with bent or twisted bails.
3.5 Inspect bail and welds for cracks. If cracks are found, scrap unit
3.6 Inspect bail and loop for wear. Verify minimum thickness/diameter must exceed the dimensions in the following table
3.7 Inspect for worn or enlarged engagement slot. W dimension must not exceed dimension as shown in the following table.
3.8 Inspect handle retaining pins. If pins are bent more than 1/8”, replace pin.
3.9 Inspect handles for wear and damage. Replace handles by knocking out pin and installing a new handle as shown in the procedure below.
3. 10 Destroy all unites that are found to be worn, damaged, bent, or twisted. The proper method to scrap a clutch with a bad bail, is to cut off and remove the bail.
3.11 No repair or welding of Fleet-Lift Ring Clutches is permitted. See Safety Information in Precast Handbook

Rated Load Tons	Load Range Tons	"W" Maximum Thickness	"B" Minimum Thickness	"DIA" Minimum Diameter
3	2-3	0.562"	0.957"	0.534"
6	4-6	0.781"	1.350"	0.712"
12	8-12	0.921"	1.913"	0.949"

Table #1: Allowable Clutch and Bail Wear

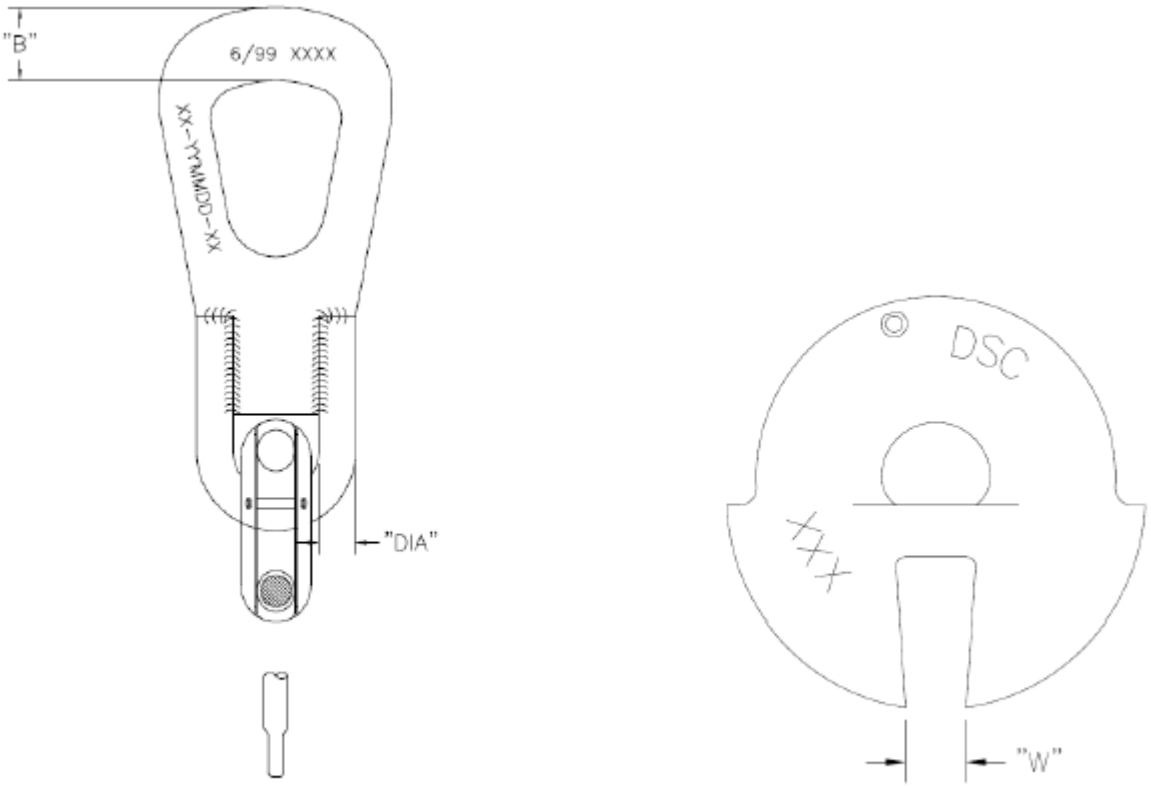
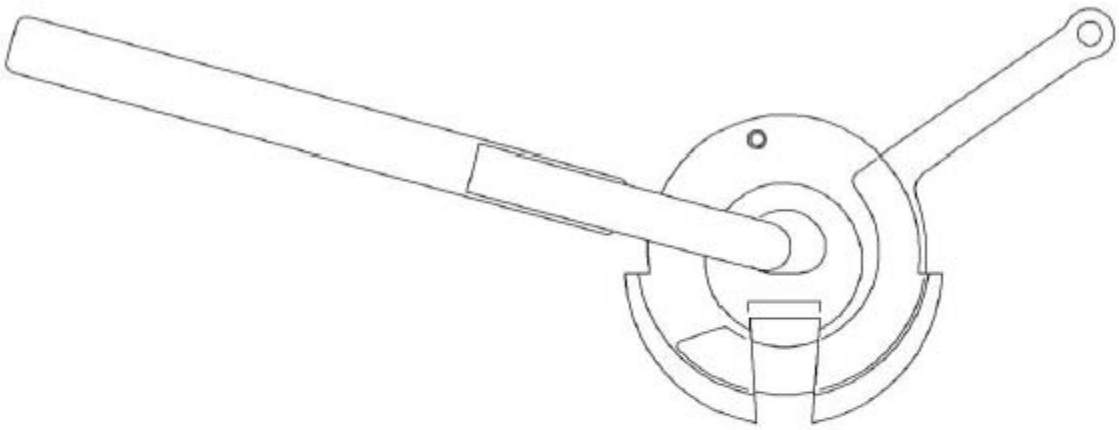


Figure #1: Clutch and Bail Dimensions



1. Set Clutch in fixture or vise with open side up.
2. Install Handle as shown.
3. Install Roll Pin and grind off any pin sticking out of holes.
4. Check Handle for full range of motion.
5. Verify Handle clears Anchor Slot.

Figure #2: Pin and Handle Replacement Procedure

4.0 Proof Load Testing and Serialization:

4.1 All units must be proof loaded and serialized.
4.2 If the unit has been previously serialized, review records upon return from customer to determine the date of the last load test and post load test inspection. If the test was performed more than 2 years prior, return the unit to an authorized facility for load test and inspection.
4.3 Document proof load test and inspection into log/database/etc.
4.4 Return unit to service.

5.0 Documentation

5.1 Locate Serial Number (XX-XXXX-XXX) on part. Log with repairs and/or comments on the Lifting Hardware Repair Log.

6.0 References

6.1 Dayton Superior Precast Handbook
6.2 See DSC Website for latest Revisions.