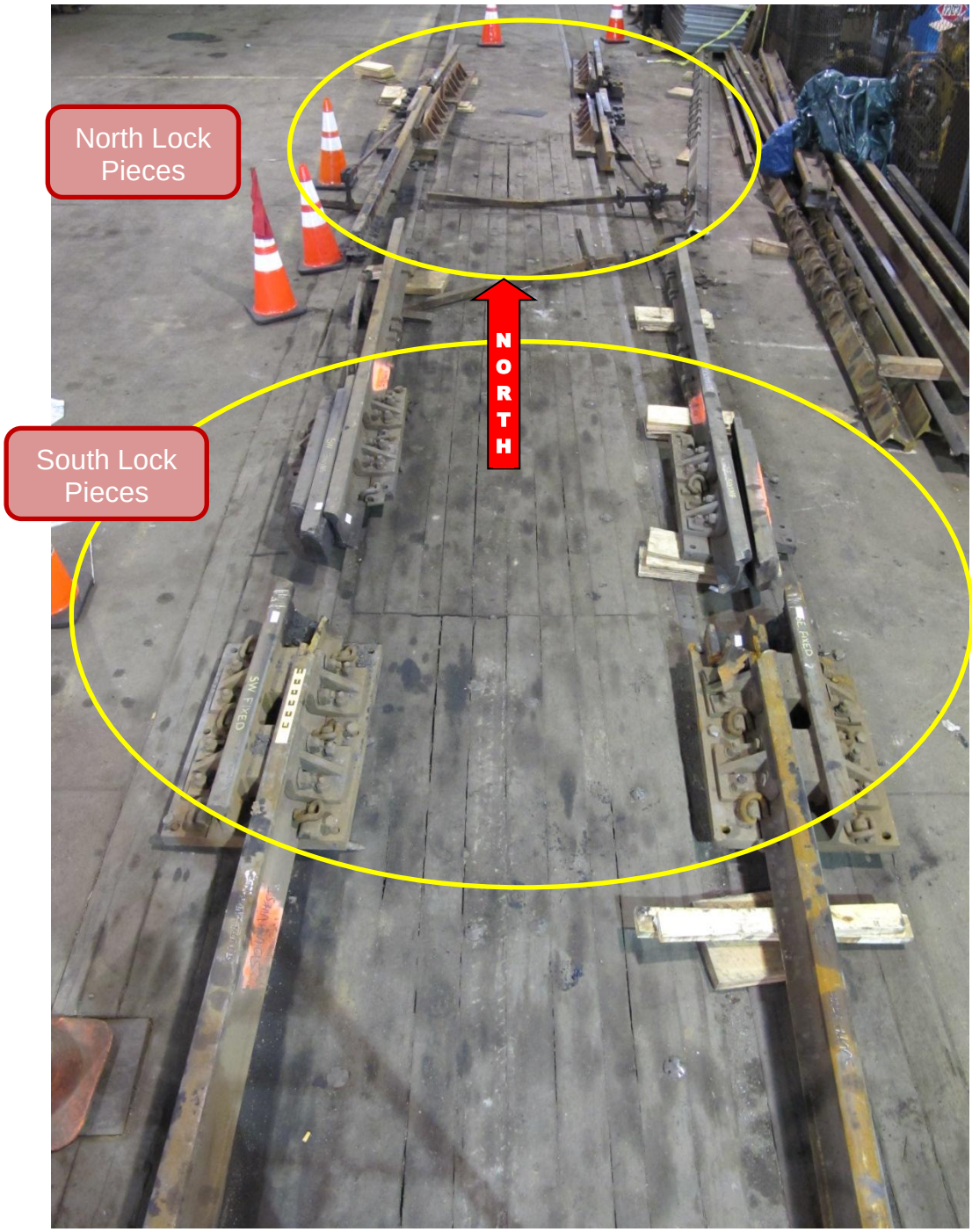

Figure 1. Overall view of the examined lock pieces relatively arranged as if on the bridge.

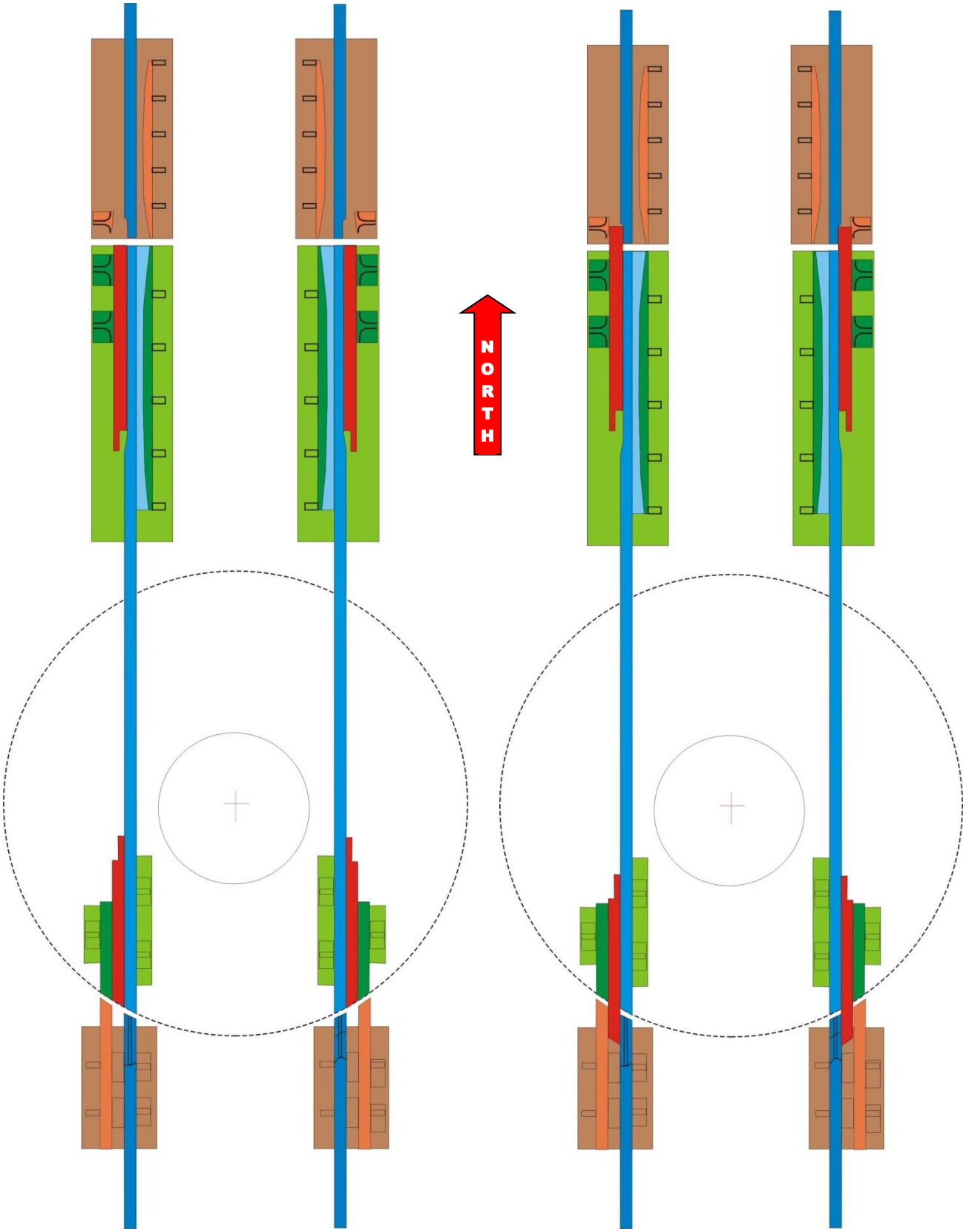

Figure 2. Illustrations of the bridge locking mechanisms at the north and south ends. Not to scale. Left illustration shows the sliding blocks (red) in the unlocked (retracted) position. The right illustration shows the blocks in the locked (extended) position.

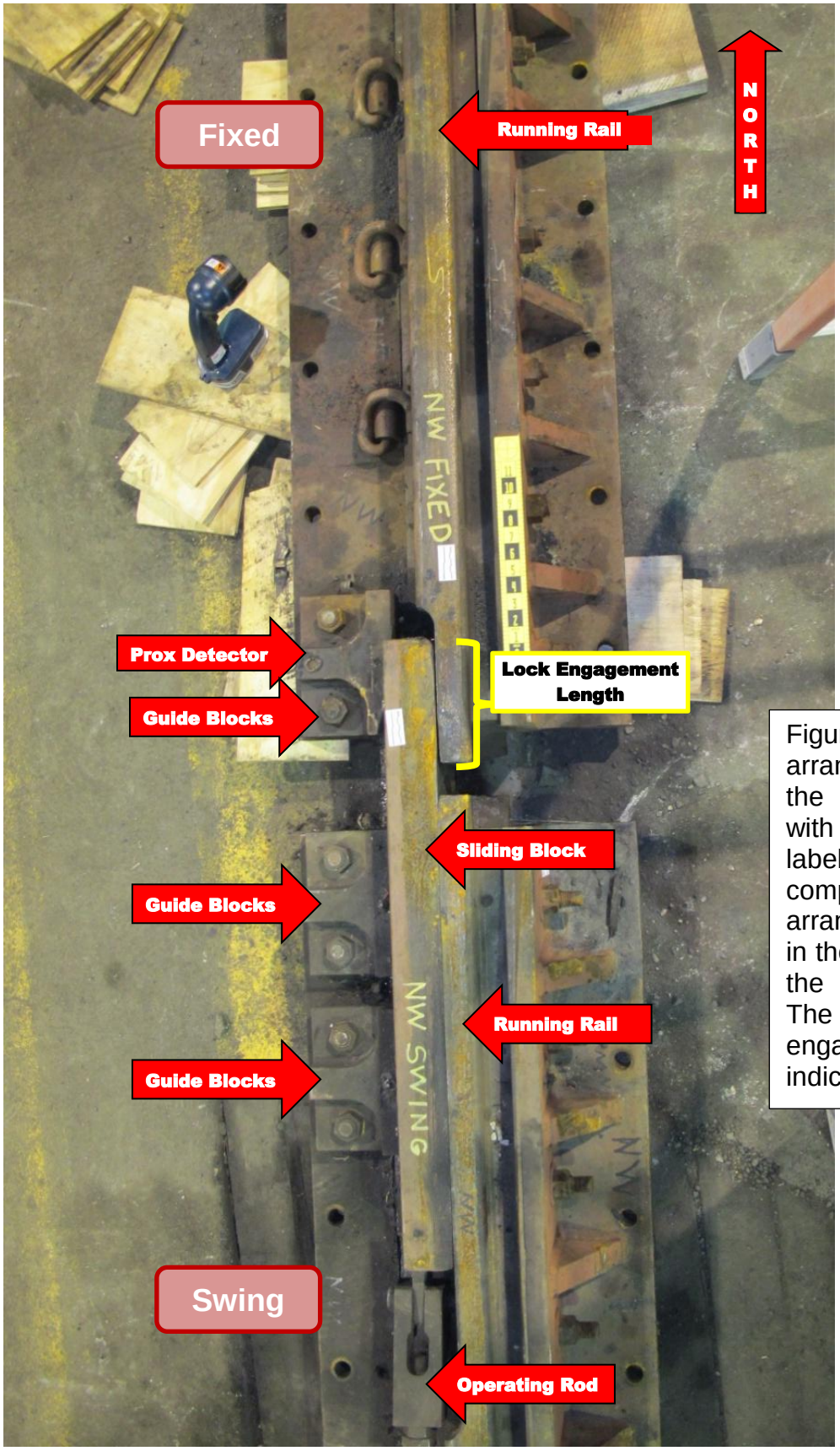

Figure 3. Image showing the arrangement of components at the north side of the bridge with many of the components labeled. West rail shown. The components have been arranged with the sliding block in the locked position engaging the fixed side components. The approximate lock engagement length is also indicated.

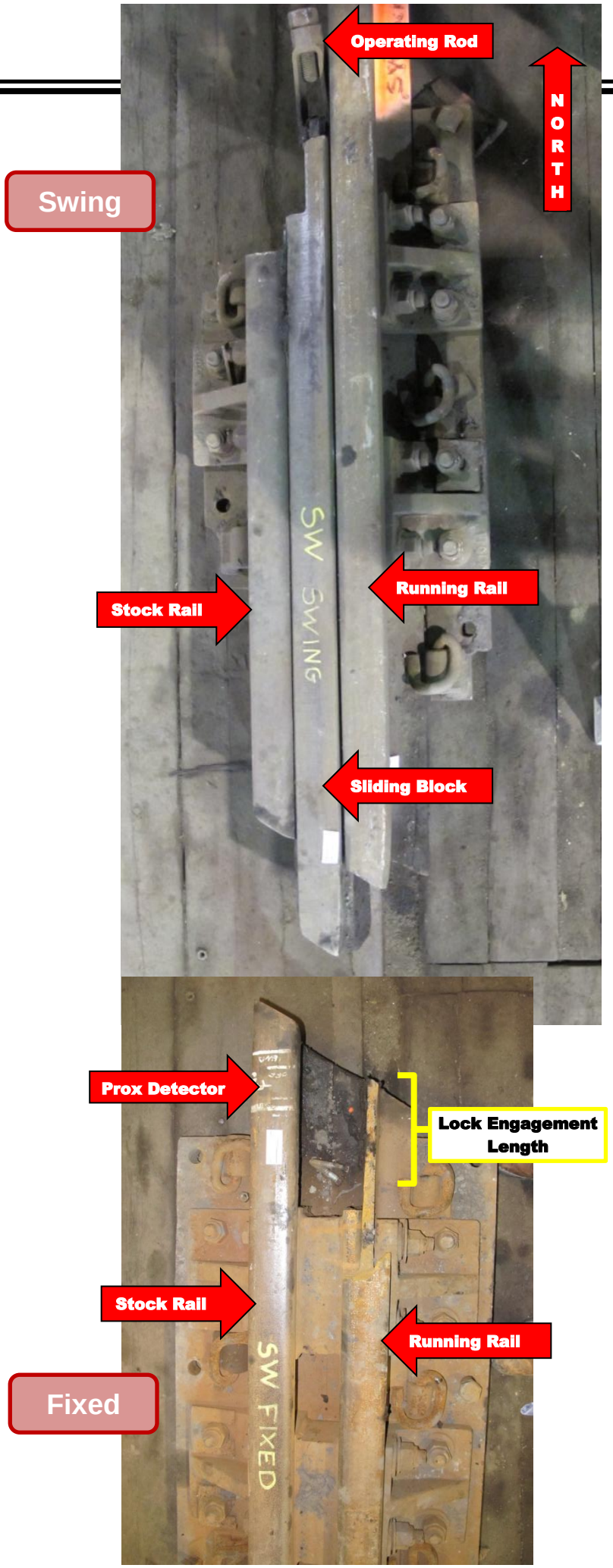

Figure 4. Images showing the arrangement of components at the south side of the bridge with many of the components labeled. West rail shown. The swing side components have been arranged with the sliding block in the extended locked position but not engaging the fixed side components (shown below). The approximate lock engagement length is also indicated.

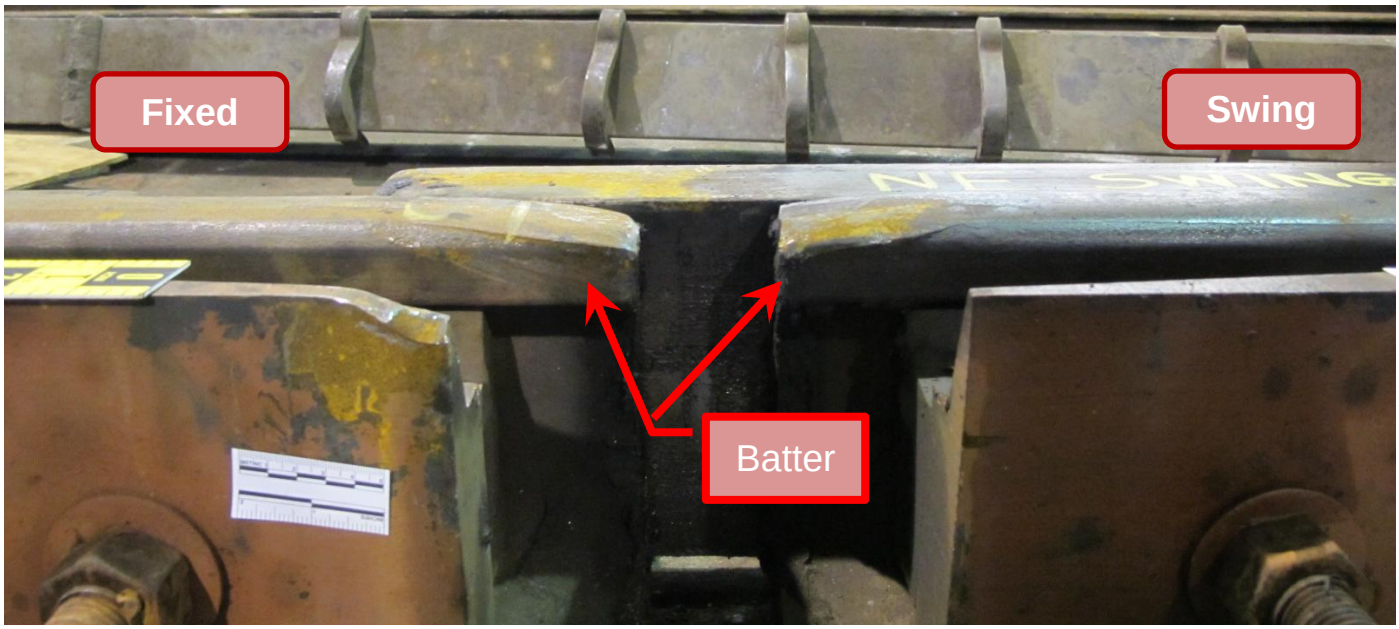

Figure 5. Side view looking east at the rail end battering on the running rail at the at the north bridge end gap. East rail shown, also typical of the west rail.

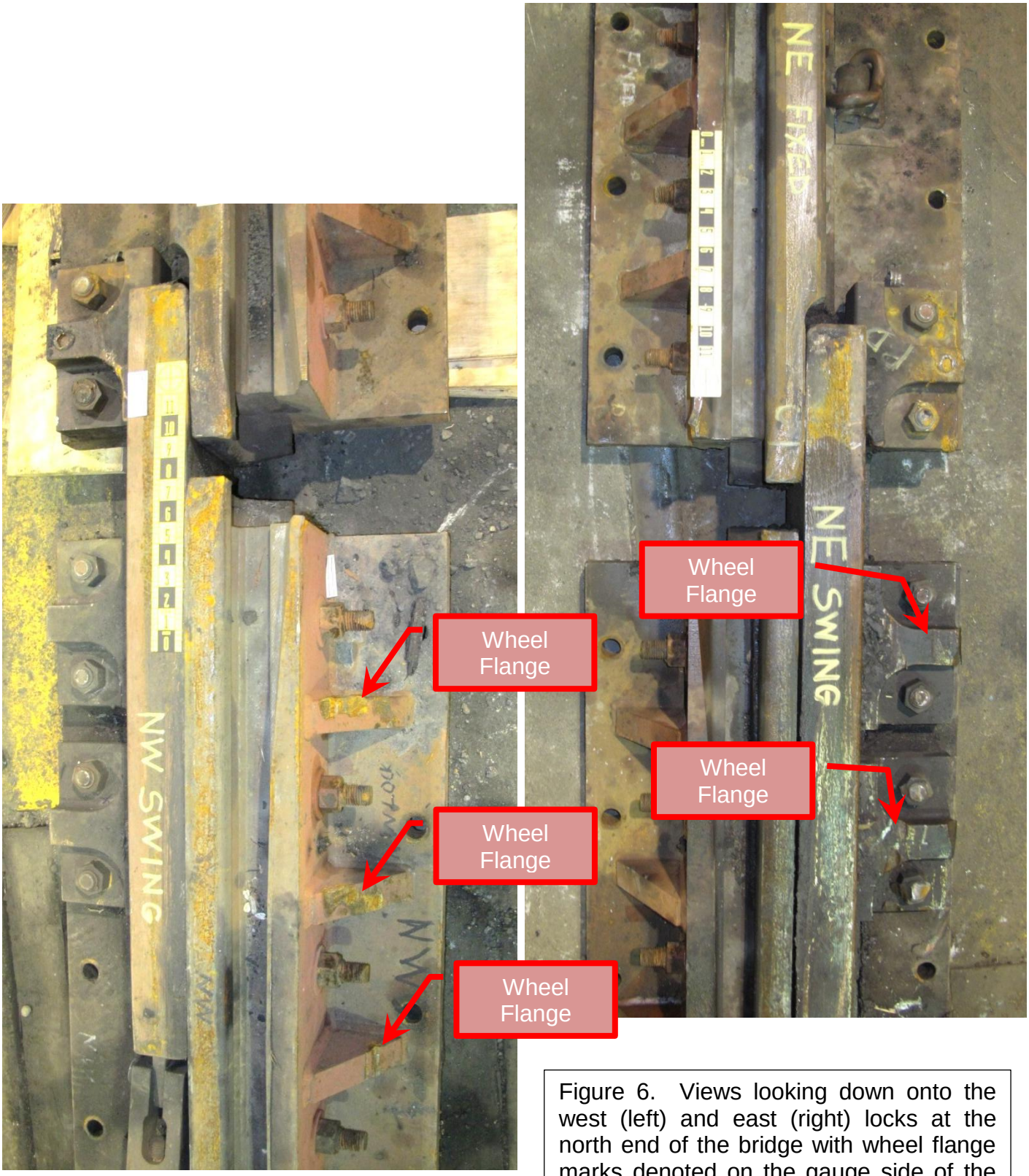

Figure 6. Views looking down onto the west (left) and east (right) locks at the north end of the bridge with wheel flange marks denoted on the gauge side of the west rail and field side of the east rail.

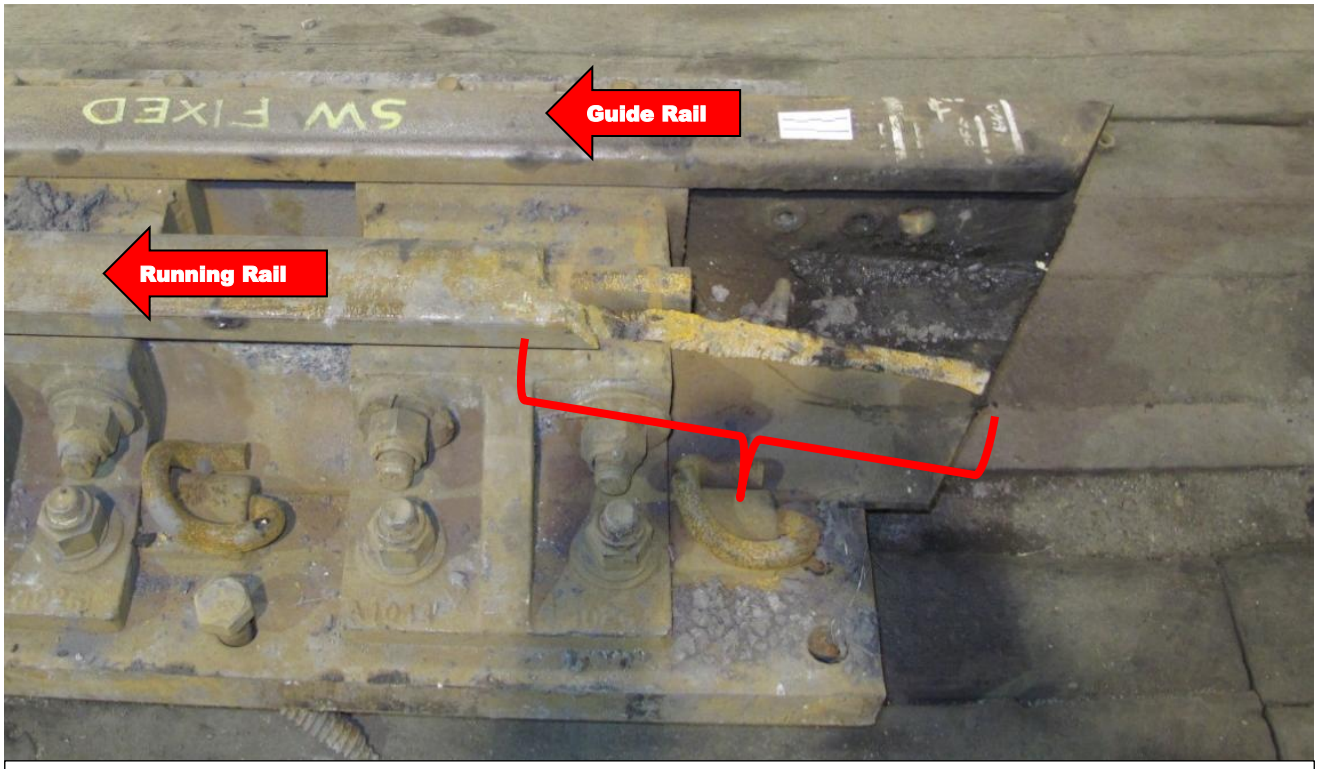

Figure 7. View of the fractured end of the running rail on the fixed south side west rail. View looking west.

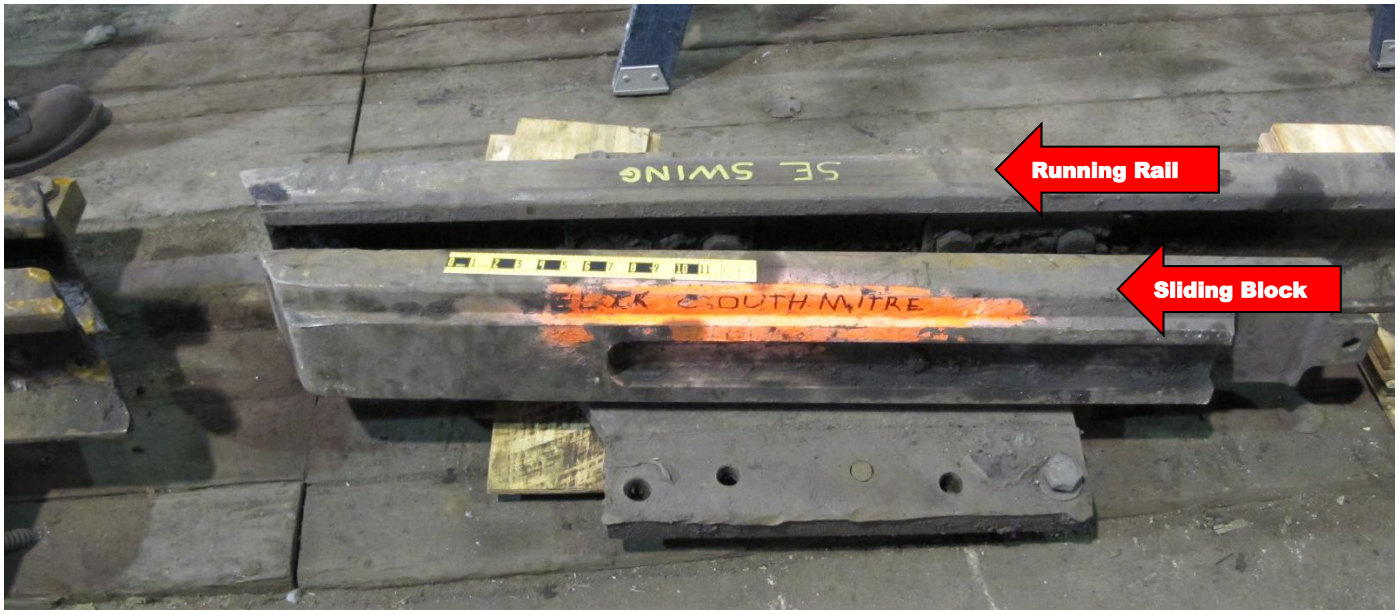

Figure 8. View of the south side east rail lock showing extensive damage to the bridge side components including; separation of the guide rail section with fracturing of the attaching bolts and release of the sliding block. View looking west.

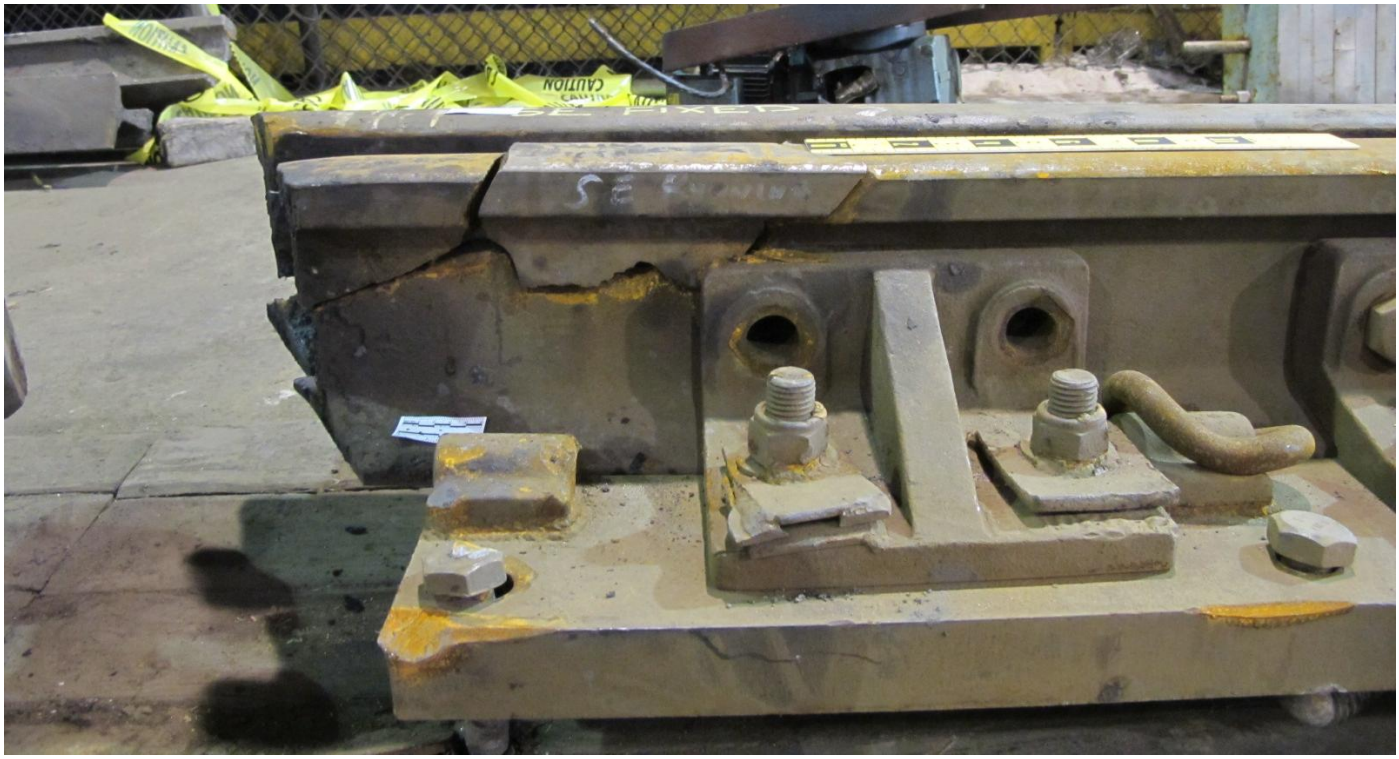

Figure 9. Upper view shows a side view looking east at the fractures in the fixed east running rail, south side adjacent to the gap. Lower view shows the same fractures from above relative to the grease line in the locking slot.

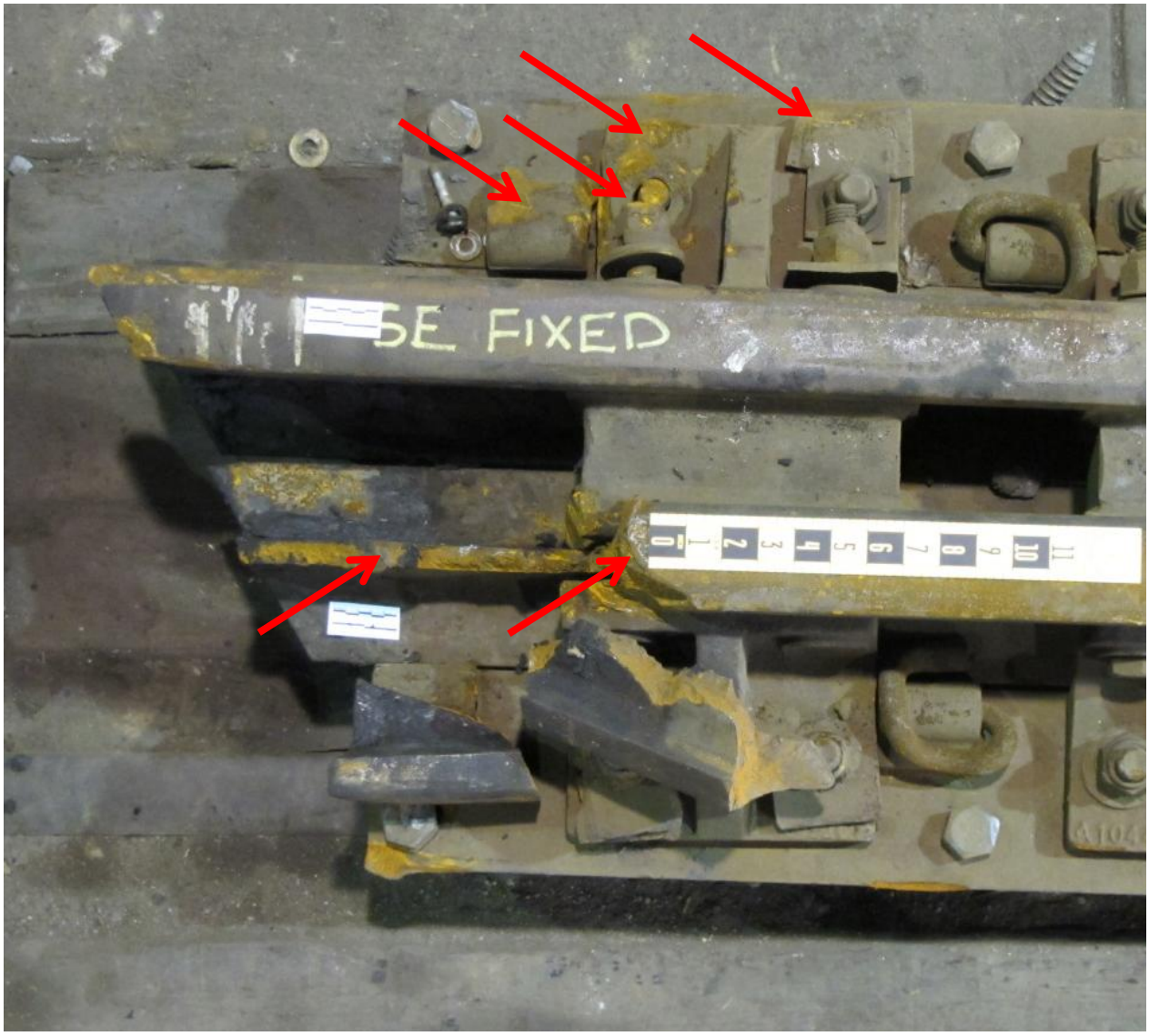

Figure 10. The fractured south side, east running rail with areas of wheel impact damaged denoted by arrows.

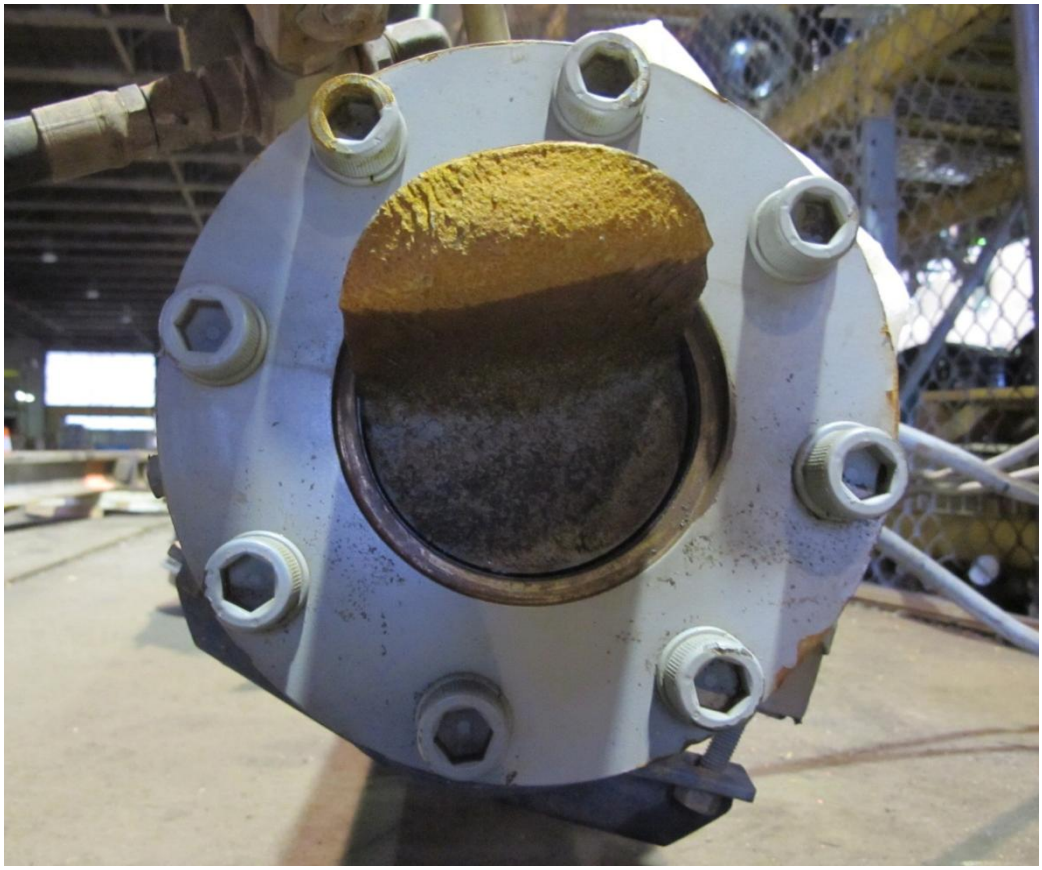

Figure 11. Overall view of the swing actuating hydraulic cylinder above with a closer view of the fracture below.