BENT HINGE PIN RESULTS IN NEAR MISS

WHAT HAPPENED:

The operation at the time of the incident was pulling out of the hole to change out the drill bit. The bottom-hole assembly (BHA) was 9 1/2” drill collars with a 7-5/8” regular connection. This operation requires 110,000 foot pounds of torque. While the rig crew was breaking out the 28” reamer and the shock sub, the hinge pin in the manual tong had become bent. This resulted in the release of the tongs, which shot across the rig floor. The tong pin that was bent during this operation had been received in the company warehouse twelve days before the incident date.

WHAT CAUSED IT:

• The parts were stored in the warehouse together with similar pins;
• The pins were not clearly labeled;
• The incorrect pin, which was picked up, was for a different type tong model;
• Rig personnel failed to recognize that they had received an incorrect pin.

CORRECTIVE ACTIONS: To address this incident, this company did the following:

• Reorganized tong pins into separate bins in the warehouse;
• Required that the tong pins going forward be clearly identified and labeled;
• Instructed the warehouse staff of the new tong pin locations;
• Instructed rig crews to verify replacement parts that do not look right and/or fit correctly;
• Required crew to check the torque specifications for tongs prior to use.

[NOTE: Manual drill pipe tongs are rated to maximum torque of 100,000 ft./lbs. When applying torque to drill collars, ALL PERSONNEL must stand clear of the area.]