



MINE SAFETY

INVESTIGATION UNIT

**Serious head Injury – chains and slings
28 May 2004**

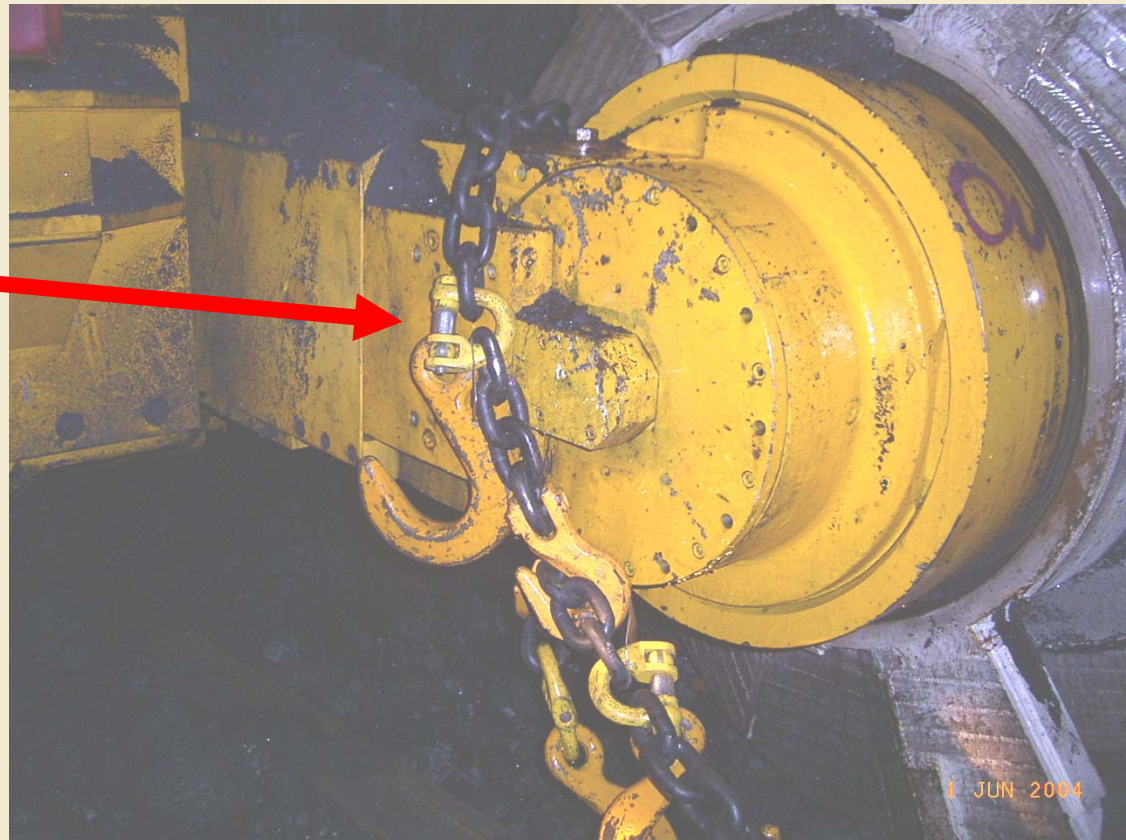


Serious head Injury – fractures to skull

- Underground Coal Mine near Wollongong NSW
- Using the shearer to pull the AFC chain
- A chain joiner with two links on one side
- Chain joiner put in side load
- Worker seriously injured by flying chain parts

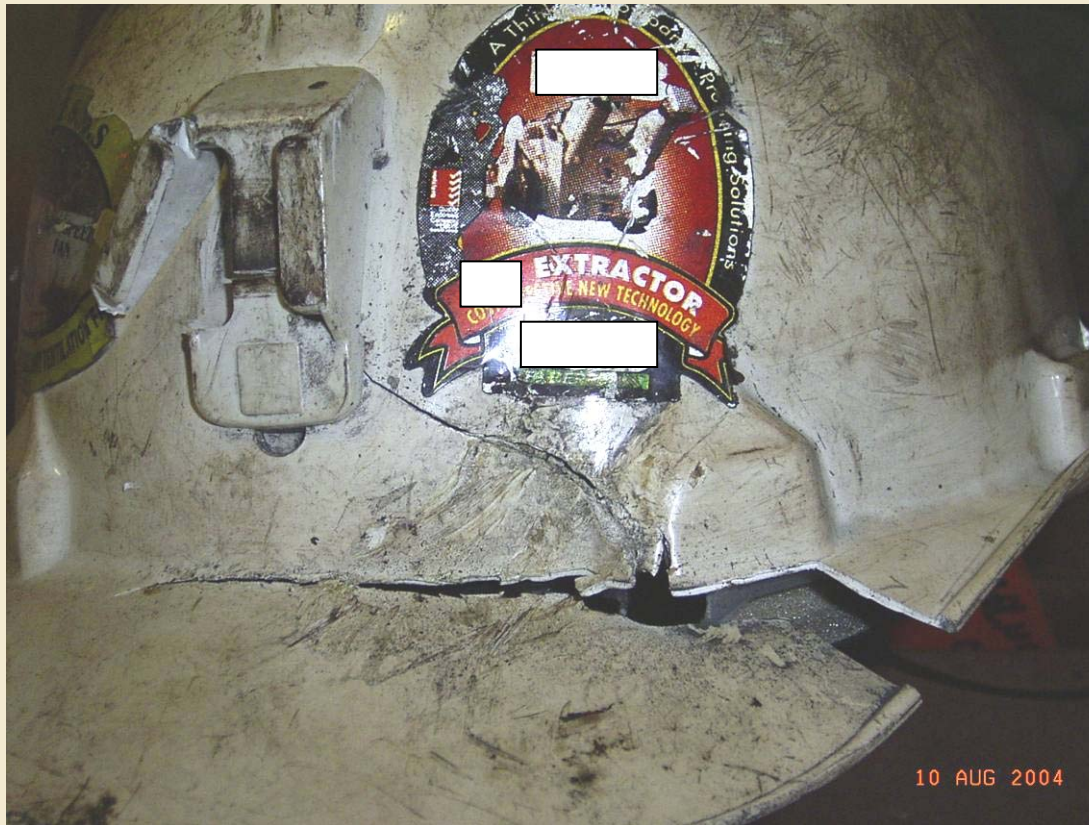
Causal Factors

Chain Connector
shown in side pull





Outcome



Damage sustained by helmet worn by injured person



Best Practice

- Pulling and lifting tasks must be designed by a competent person
- Pulling and lifting tasks require competent supervision
- The max. forces and loads must be considered
- Only use correctly rated pulling and lifting gear.
- Damaged lifting and pulling equipment should be reported and not re-used
- Never place a chain connector in side load



Recommendations

- Mechanical Engineering Safety Management Plans – Lifting and pulling
- Supervision and training
- Suppliers of Lifting and Pulling Equipment to provide correct equipment and information



Related Published Resources

- AS 2321 short link chain for lifting purposes
- AS 3775 chain slings grade T
- AS 3776 lifting components for grade T chain sling
- Safety Alert SA 04-09 broken chain connector results in serious injuries
- Investigation report
www.dpi.nsw.gov.au/minerals/safety