

ESAA No: 37/2003
Safety Gram No. 15-03

AIM

To increase safety awareness affecting safe working practices and to provide Incident/Accident information sharing between centres.

TIME / DATE / LOCATION

- 0830
- 6th September 2003
- Shepparton

BRIEF DESCRIPTION OF INCIDENT

A crew was installing a set of HV Mid Span Isolators (MSI's or LTD's "Line Tension Disconnects") when the steel thread of the turnbuckle slipped through the alloy threaded body of the turnbuckle.

CONTRIBUTING FACTORS TO INCIDENT

- ◆ Damage to the threaded section of the turnbuckle was evident after the incident, however it is not conclusive that this damage was the cause of the failure.
- ◆ The alloy body of the turnbuckle will wear with continual use.
- ◆ Lubrication of the threads of units in service needs to be continually maintained.

LOCAL ACTION TAKEN

The failed turnbuckle was forwarded to the Safety and Work Practices Group.

The turnbuckle was returned to the supplier to evaluate the cause of failure. The report indicated the unit showed signs of significant wear.

Load testing on 5 other units was undertaken in an attempt to evaluate the potential risk of using these units. Three of these units (the 3 most worn) were loaded up to approximately 5 times the SWL and no failures occurred, these turnbuckles were then destroyed.

ADDITIONAL COMMENTS

Risk due to failure:

It is important to note that any failure of the turnbuckle whilst operating the ratchet spanner (taking tension) has minimal risk, i.e. tension is taken up prior to the conductors being cut or likewise during the removal, once the conductors are joined.

The following actions outline the conditions for use of the turnbuckles.

FURTHER ACTION

- ◆ Each time the unit is used a visual inspection of the threads shall be carried out and where damage is noticed they shall not be used and will need to be replaced.
- ◆ Each unit will be inspected and loaded up to its rated SWL during the lifting tackle inspection. Once loaded the operation of the ratchet must be free from binding.
- ◆ Field crews are to maintain grease/lubrication on threaded section as this will reduce wear on the turnbuckle and increase its lifecycle.
- ◆ Where personnel are concerned with the operation of a turnbuckle it shall be removed from service and sent for test.

POTENTIAL SEVERITY (Fatality, Permanent Injury, Minor Injury)

Permanent or minor injury.

- Please discuss at Work Group Meeting.
- Place a copy on all Health & Safety notice boards

Reported by: Robert Oldfield	Phone 0409 963 142	Date: 16/9/2003
-------------------------------------	---------------------------	------------------------