

## ADVISORY

June, 2009

**PRODUCTS**: Wire Ropes and Safety Locking Systems on All 4-Post Automotive Lifts.

### HAZARD:

Some lifts manufactured between November, 2005 and May, 2009 are experiencing premature wear of wire ropes due to inconsistent wire rope quality. Failure of a wire rope could cause lift to collapse resulting in serious personal injury or death. Wire ropes and safety locking systems on 4-Post lifts are critical to safe and reliable performance of your lifts.

### **ACTIONS**:

### INSPECTIONS AND MAINTENANCE OF WIRE ROPES AND SAFETY LOCKING SYSTEM

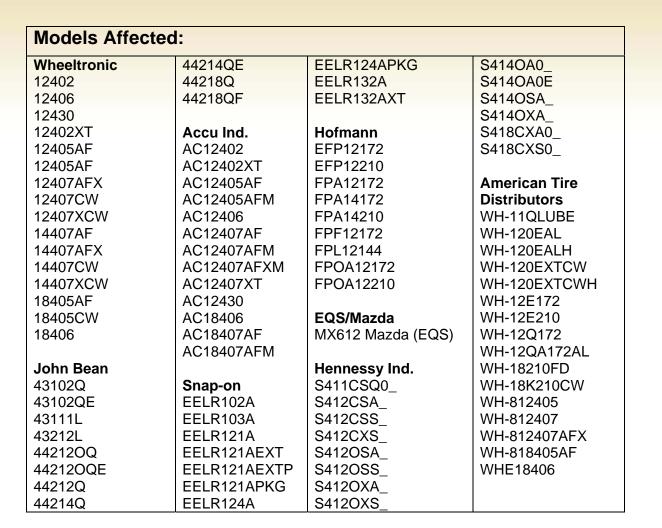
(Please complete this form and keep it for your records. You do not need to send this form to Snap-on.)

Monthly inspection of wire ropes and safety locking system per operation manual and ANSI/ALI ALOIM standard is required.

If you have not complied with these standards and procedures during your monthly inspection or if you have not completed your required monthly inspection, do so immediately utilizing the standard and enclosed procedures.

Note: For replacement copies of operation manual and ANSI/ALI ALOIM standard, contact technical support.





**Snap-on** Incorporated

Lift Serial Number:			
Manufacture Date:			
Location:			
Date of Inspection:			
Name of Inspector:			
Identification of Wire Ropes Stamped on the threaded stud	Rope 1 (FL):	Rope 2 (RL):	
(Figure 1)	Rope 3 (RR):	Rope 4 (FR):	

### If you have questions on this advisory or need assistance contact: <u>Technical support at (800) 225-5786 (press 2, press 3)</u>.

**QUESTIONS:** 



#### 1. Wire Rope Inspections and Replacement Criteria

Visually inspect the general condition of the entire wire rope, pay particular attention to sections where the rope is bent in the sheaves.

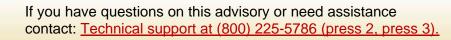
Wire Rope Replacement Criteria:

The wire rope must be removed from service if one or more of the following criteria are met:

- **1.** More than six randomly distributed broken wires in one rope lay or 6×d length (Figure 4).
- 2. More than three broken wires in one strand in one rope lay or 6×d length (Figure 4).
- **3.** Three or more broken wires at rope terminations (Figure 1).
- **4.** Heavy rusting.

1.1. Lubrication ...... Good Poor If "Poor", apply lubricants. Use lubricants that offer 1) wear resistance, 2) corrosion prevention and 3) penetration into rope strands. For example: 2001 MONOLEC<sup>®</sup> Wire Rope Lubricant.

- 1.2. Broken wires (Figure 2) ······ □Yes □No If "Yes",
  - Indicate the rope and location of the broken wires according to the sketch in Figure 3, for example: "close to RL", "between Location-2 and Location-3", etc. <u>Rope and location of broken wires:</u>
  - 2) Count the number of broken wire in one rope lay or 6×d length (Figure 4) in the worst location. <u>Number of broken wires:</u>
- 1.3. Rust (Figure 5) ..... [Yes ]No
  If "Yes", indicate the rope and location of the rust according to the sketch in Figure 3, for example: "close to RL", "between Location-2 and Location-3", etc.
  <u>Rope and locations of rust:</u>
- 1.4. Excessive wear (Figure 6) ..... QYes No If "Yes", indicate the rope and location of the wear according to the sketch in Figure 3, for example: "close to RL", "between Location-2 and Location-3", etc. <u>Rope and location of wear:</u>



**QUESTIONS:** 

PRODUCT SAFETY	
1.5. Other issues with wire ropes Yes No If "Yes", describe below and contact Snap-on technical support for solutions.	
2. Safety Locking Systems (Figure 8)	
2.1 The whole system is free of debris and dust QYes No If "No", clean and re-lubricate.	
2.2 Both mechanical lock and cable-break lock are working properly QYes No If "No", take proper actions to correct or contact Snap-on technical support for solutions.	
2.3 Rollers are free to rotate	
2.4 Corrugated roller groove (Figure 7) · · · · · · · · · · · · · · · · · ·	

**3.** All other items associated with wire ropes, for example: sheaves, rollers and shafts, should also be inspected to ensure that they are properly maintained and in normal working conditions.





#### Wire rope terminations

Wire rope identification stamp



Figure 1 Wire rope identification stamp and terminations.

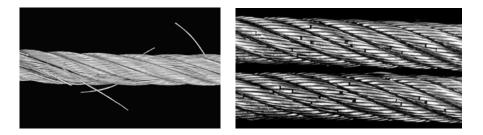


Figure 2 Broken wires.

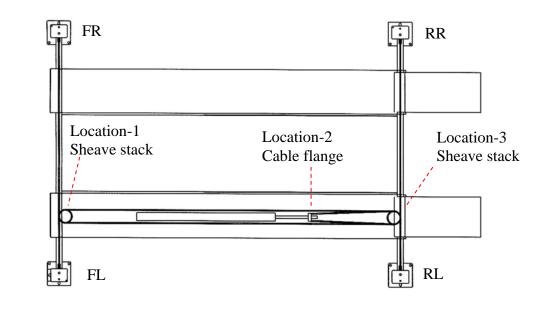
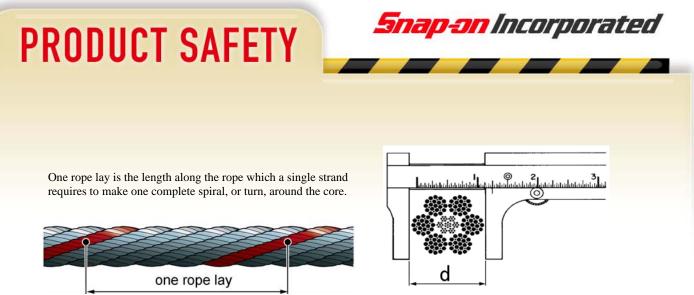


Figure 3 Locations of damage.

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**QUESTIONS:** 



**Figure 4** *Lay length and 6×d (six times of the rope diameter "d") length.* 



Figure 5 A heavily rusted wire rope.

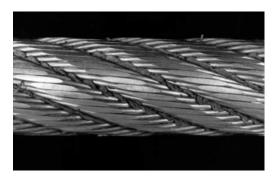


Figure 6 Excessive wear of wires.

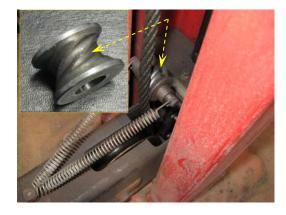
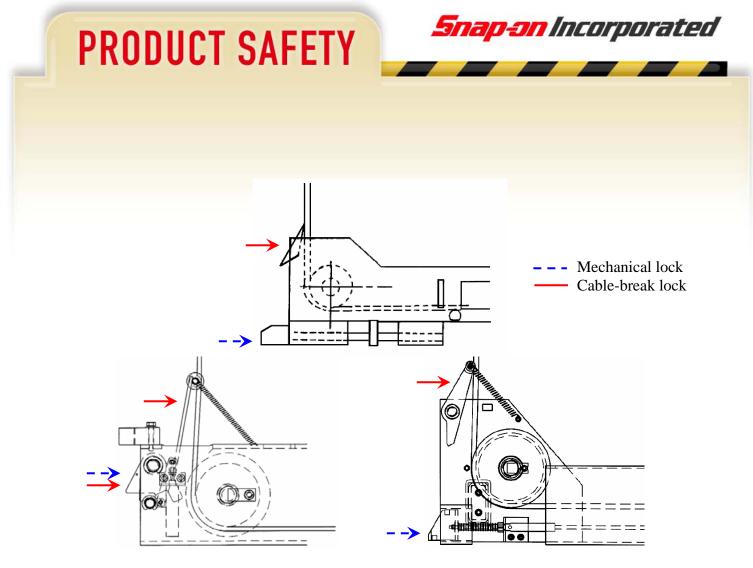
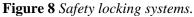


Figure 7 Corrugated roller groove.







QUESTIONS: