

National Association of Lift Makers

NALM

33/34 Devonshire Street London W1N 1RF
Director D M Fazakerley

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To: All Members
cc: The Quality and Technical Committee (Code No: 1748)

26 November 1993

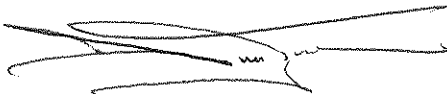
Dear Sir

ALOIS KASPER GEARS

I enclose information received from the Express Lift Co Ltd with their letter of 16 November and which will be of interest to some members.

Please be guided accordingly.

Yours faithfully



D M Fazakerley
Director



**THE EXPRESS LIFT
COMPANY LIMITED**

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Northampton NN5 5BT

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16th November 1993

Mr D Fazakerley
NALM
33/34 Devonshire Street
London
W1N 1RF

Dear David

Re: Alois Kasper Gears

We have recently experienced a gear failure on one of the above gears when the counterweight ran on to the buffer. Inspection of the gear indicated that the wormwheel had been stripped of teeth down to the root diameter.

The job in question was about 10 years old and had only recently been taken under ELCo maintenance. The reason for the failure was inconclusive but thought to be a lubricant problem as the oil had oxidised and been degraded and it was unlikely that the gear oil had ever been changed. The gear manufacturers recommend that the oil be changed every 3000 working hours (say 2 years) and have confirmed that the life expectancy of the gear should be at least 20 years.

In order to prevent a recurrence of the incident we are arranging for the following examination/action on all gears of this type under our maintenance and feel that other Lift companies may wish to take the same precautions:

1. Drain oil from gear and replenish with new of correct specification.
2. Take the load off the ropes in the normal manner and measure the backlash.

The backlash is measured at the motor end by turning the motor until the driving sheave starts to move. If this angle exceeds 60° then the gearbox is excessively worn and the worm and wormwheel must be replaced or alternatively a replacement gear must be fitted.

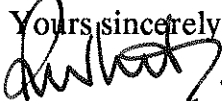
3. With the load off the ropes remove the cover on the end of the gear box and inspect the wormshaft thrust bearings movement.

Measure wormshaft thrust movement. If more than .002" then refer to the Technical manager as this can be adjusted with special tools.

4. With the load off the ropes remove the cover on the top of the gear box and inspect the wormshaft for excessive wear.

Inspect the catch chambers located either side of the wormshaft for any metal deposits. If any significant deposits are found and backlash is acceptable it will be necessary to inspect the wormwheel.

Refer to the Technical Manager as special tools are required to do this.

Yours sincerely


R White
Quality Manager

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