
Instructions for Correct Maintenance for the Sliding Guards and Linear Actuator on a JEFFCO WD02 Wet Disintegrator.

A number of customers have reported failures of the plastic gears in the Linear Actuator Part No LAC001 which controls the lifting and lowering of the bowl on the Jeffco Wet Disintegrator Model WD02.

On investigation, we have found that this comes from a lack of maintenance on the stainless steel sliding safety guards on the front of the machine which are moved by the Bowl Lifting Arm. It is imperative that the channels of the body in which the guards slide must be kept clean otherwise build up of cane fibres and dirt can cause the sliding guards to jam and overstress the Linear Actuator both in the upward and downward travel directions.

The Linear Actuator is rated to apply up to 700kg of force so it is properly rated for the application. However, we have found that if sufficient debris is left to collect in the slide channels of the main body and allowed to dry especially during a period of non-use, then extremely high forces may be generated on the Linear Actuator which can cause failure of the internal gears. The plastic gears must NOT be replaced by metal ones. The plastic gears are deliberately designed to shear if a situation occurs which could destroy the motor or other components.

If this type of damage has occurred, then either the intermediate gear or the output gear (or both) of the Linear Actuator may need to be replaced. We suggest that it is safer to replace both to guard against future problems. In the following diagram, the parts are identified as follows:

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|-----------|-------------------|--------------------|
| ○ Item 13 | Intermediate Gear | Part Number LAC005 |
| ○ Item 36 | Output Gear | Part Number LAC006 |

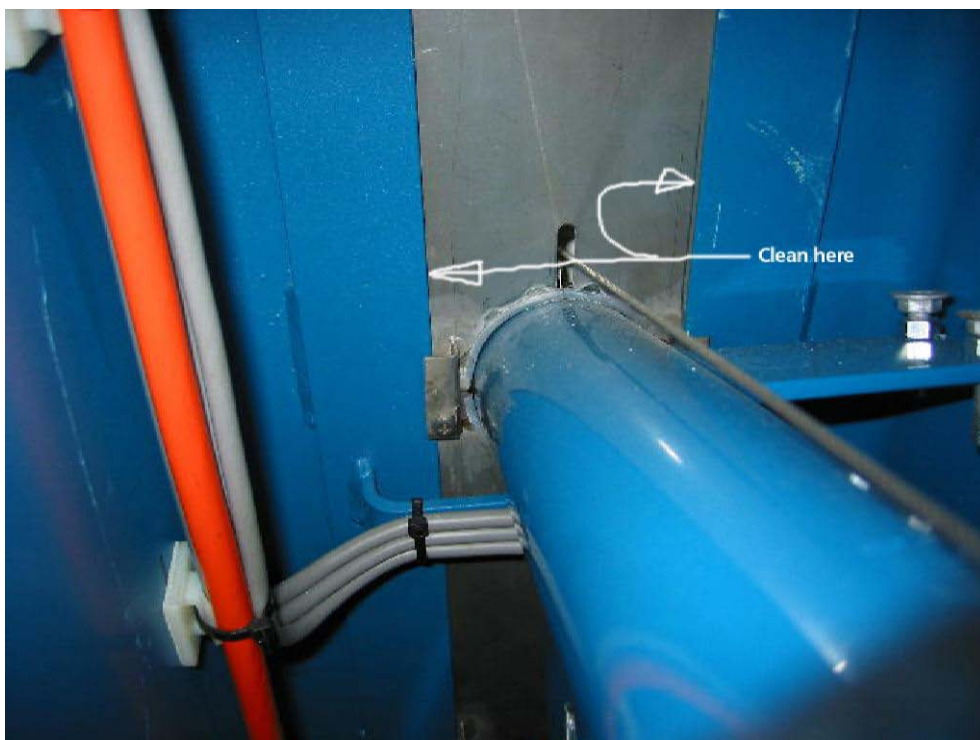
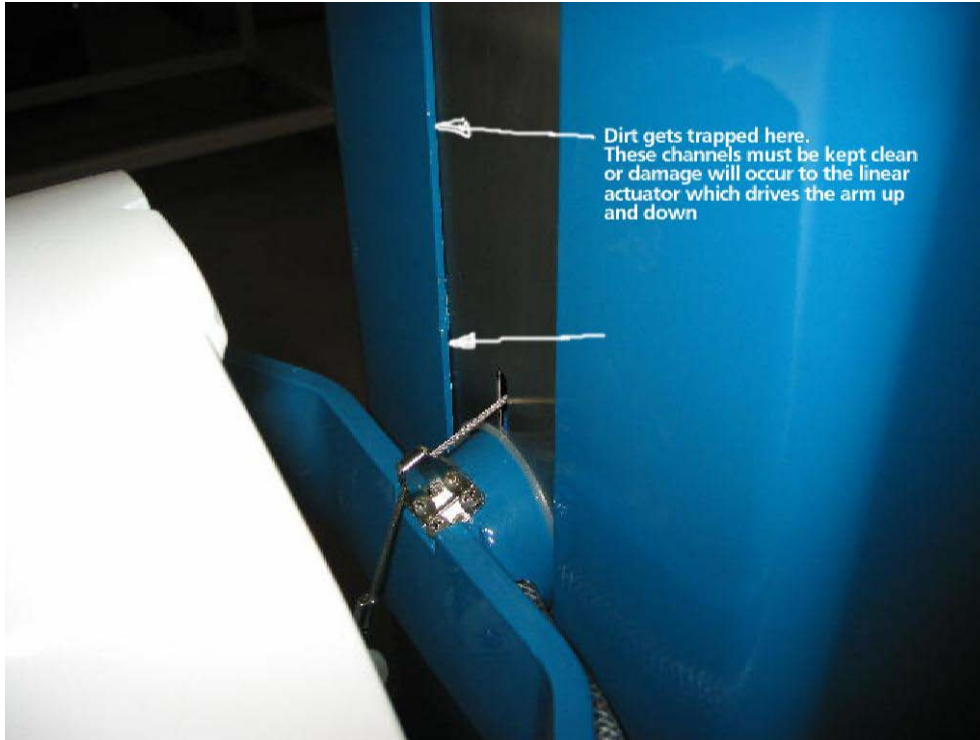
There is a separate Engineering Note entitled "Instructions for Replacement of the Linear Actuator LAC001 (or any of its component parts)" available if you require assistance in the mechanics of disassembly and replacement of these parts.

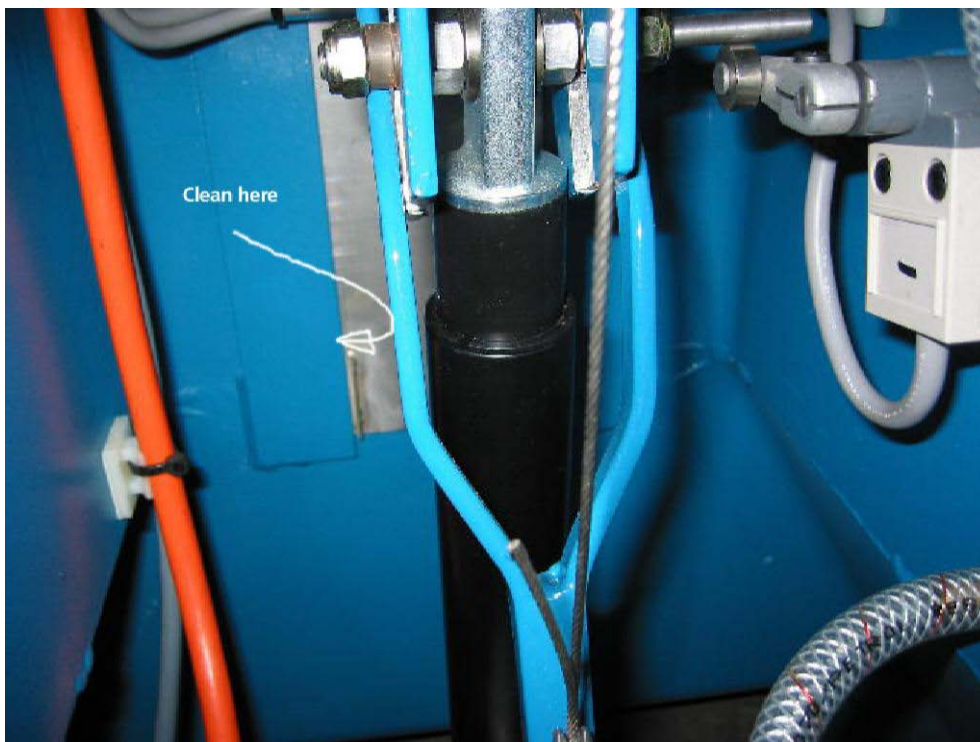
Prevention of Future Occurrences:

It should be part of normal cleaning (dictated by the amount of use the Wet Disintegrator gets) that the channels of the sliding guards should be serviced regularly. This can be done by running a thin metal spatula or flexible knife in between the body and the sliding guards (both front and back) to remove any debris from the channel and flushing carefully with a little water. Compressed air may also

help to dislodge built up debris. Whenever it is apparent that there is significant debris which is impeding the free motion of the sliding guards, the machine should be isolated and disconnected from the main power supply, the guards removed and the channels thoroughly cleaned. The guards should move freely on the bowl lifting arm once reassembled.

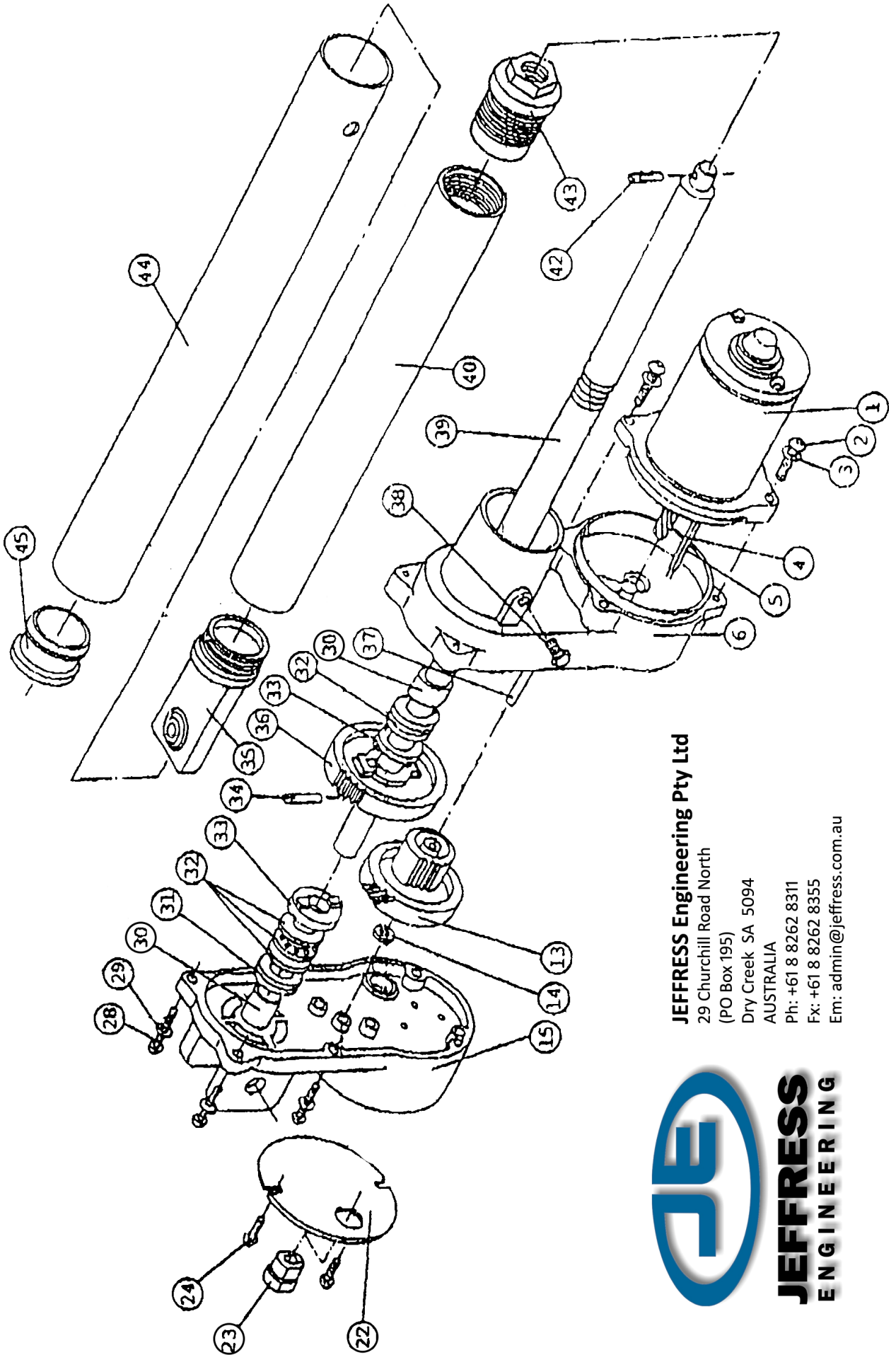
The following photos demonstrate where the cleaning should be directed:





To overcome this issue of lack of maintenance, later models of WD02s have been modified to incorporate removable sliding channels which are held in place by screws and bolts. These have a much more open structure which assists in minimising build up of debris as well as making it easier to clean the channels.

JEFFCO Linear Actuator LAC001



JEFFRESS Engineering Pty Ltd

29 Churchill Road North
(PO Box 195)

Dry Creek SA 5094
AUSTRALIA

Ph: +61 8 8262 8311

Fx: +61 8 8262 8355

Em: admin@jeffress.com.au



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