

**** Please be advised that when replacing the above internal components on OLS telescopic jacks, it is critical to ensure that you re-fill the cylinders with the special high lubricating (WAY OIL), which is not hydraulic oil. The ESSO product name is FEBIS K 68 or ask your oil supplier to cross reference this for similar way oil. The average application would require 4 or 5 (5 gal pails) ****

Repair/Replacement of Re-Synch Components (OLS-NA 2 and 3 stage telescopic jacks)

STICK SLIP (VIBRATION)

This can happen on any jack, telescopic or single stage and is typically happens when the oil is hot. As the oil heats up the lubrication properties diminish, hydraulic oil typically has poor lubrication properties and worsens as the oil becomes hotter. The oil inside the telescopic jack does not come in contact with the oil in the power unit but the heat of the oil in the power unit will heat up the oil in the jack. We fill the telescopic jack with high lubricating oil that has a common name "WAY OIL", it is not a hydraulic oil. ESSO have a product name FEBIS K 68, your oil supplier should be able to cross reference this. 4 – 5 (5 gal pails) should be enough.

You may see Stick Slip be more of a problem with telescopic than single stage, single stage you only have one gland packing and for two stage telescopic you have two gland packing's and one piston seal at the bottom of the second stage and for three stage you have three packing glands plus two piston seals one on the bottom of the third stage and one on the bottom of the second stage. Also leveling speed contributes to the stick slip problem, slower the piston speed the more chance of experiencing stick slip. Let us assume a car leveling speed of 12 fpm, for single stage jack the piston speed will be 12 fpm, for two stage telescopic the leveling speed of each piston will be 6 fpm and for three stage telescopic each piston speed will be 4 fpm.

FULL MANUAL RE-SYNCH OF JACK

Remove buffer springs and buffer stands, bring car to bottom landing, remove power and lower car into pit using a manual lowering on power unit. Crack open the three air bleeders and jog the up button without lifting car until all air is removed.

TOTAL BOTTOM UNDERTRAVEL TO TOTAL TOP OVERTRAVEL RATIO

TOTAL BOTTOM UNDERTRAVEL = With spring buffers and buffer stands removed bring the car down to the bottom floor, remove power and lower the car down until the jacks are fully collapsed. Measure Bottom Landing Sill to Car Sill = TOTAL BOTTOM UNDERTRAVEL

TOTAL TOP OVERTRAVEL = With jack fully synchronized run car to top landing jump out the final limit and run car up on inspection until jack is fully rung out on the stop rings. Measure Top Landing Sill to Car Sill = TOTAL TOP OVERTRAVEL. Make sure the jack is synchronized before you run the car to the top landing to verify the Total Top Overtravel.

TWO STAGE TELESCOPIC JACK: Total top overtravel has to be more than the total bottom undertravel by a minimum of 1". Example if the total bottom undertravel is 8" the total top overtravel should be a minimum of 9", it can be more.

THREE STAGE TELESCOPIC JACK: Total top overtravel has to be 2 x bottom undertravel + 1". Example if the total bottom undertravel is 8" the total top overtravel must be a minimum of 17", it can be more.

REPAIRING JACK ON SITE.

DISASSEMBLE:

If this work is to be completed from the top of the car.

Bring the car down onto the buffers remove the power, and remove the pressure from the system.

Remove each packing gland, if the packing glands are screwed on type check to see if there is a set screw holding glands in place. If there are set screws remove them prior to screwing the glands off.

Pull the first stage (smallest) out, you will find a guide ring on the bottom of this stage make sure you do not loose it.

Break the oil line between the jack and power unit before you pull the second and third stage out (***applicable for 3 stage jacks only**), this is to prevent building a vacuum because the bottom of both of these stages have seals. Place pail under the line where broken to be sure the oil does not leak out onto the machine room floor.

Pull the second stage (intermediate). As you are pulling the second stage out the oil that is inside the jack will come to the top, you will need a drill pump to evacuate the oil into empty pails, do not re-use this oil. When you have this second stage out remove the piston that is screwed to the bottom of the second stage. There may also be a set screw holding the piston in place check and remove if there.

Pull the third stage (largest). Evacuate the oil as you are pulling this stage out. Screw the piston from the bottom of the third stage (***applicable for 3 stage jacks only**), check for set screw.

The pistons that have been removed from the bottom of the second and third stage (***applicable for 3 stage jacks only**) need to be sent back to OLS-NA for repair or replaced with new re-synch components to be ordered from OLS-NA. These pistons house the re-synch valve and the piston seal.

You should also order new packing gland seals.

For all parts being returned to OLS-NA, when we receive the pistons back we will test and repair them and send back to you.

ASSEMBLE:

Screw repaired or new pistons to the bottom of the third stage (***applicable for 3 stage jacks only**) apply a little grease to the seal and lower into cylinder. Make sure you have the pail under the line making sure you are not pushing oil into the machine room.

Screw returned piston to the bottom of the second stage apply a little grease to the seal and lower into third stage. (***applicable for 3 stage jacks only**)

Lower first stage into second stage.

Do not fit the packing glands.

Pour high lubricating oil from the 5 gal pails into the cavities between the first, second and third stage (***applicable for 3 stage jacks only**) until the cavities are completely full, keep topping up until oil does not drop.

Re-connect the oil line in the machine room.

Replace the gland seals and fit the glands.

Run jack to pick up car remove the springs and buffer stands and lower the car back to the bottom landing, turn off the power and lower the car down until the jacks are fully collapsed.

Crack open each air bleeder and jog the up button without lifting the car until all the air is removed, close the air bleeders and run the car to the top landing and bring back down,

Remove power lower car into pit crack open air bleeders and repeat the air bleeding process a few more times until all the air is removed.

Heat Exchanger may be required if elevators see a lot of use. We supply heat exchangers for approximately \$3,000.00