

1. SERVICE MAINTENANCE OF SECTIONAL DOORS “ALUTECH”

1.1 Overall information

- Service maintenance includes technical checkup and maintenance works, executable in accordance with the “Scheduled operation list”.
- Service maintenance is realized by specialists (or with their participation) of enterprise, which mounted the door.
- Basic safety requirements during execution of works and the list of the necessary instruments are given in the Mounting instructions.
- Service maintenance should be done only by personnel familiar with product design and mounting instructions of sectional doors “Alutech”, trained on mounting manner and safety techniques.

- Periodicity of service maintenance:

- for garage doors - recommended 1 time in a year;
- for industrial doors – minimum 1 time in a year surely.

Door service maintenance in the special operation conditions should be done not less than 1 time in 3-6 month. The special operation conditions are the following doors usage:

- automatic wash for cars and railway transport facilities;
- industrial and storage areas, garages and parking with usage intensity more than 30 cycle in a day;
- doors operation in a bad weather conditions (high wind loading, areas with long (more than 6 month) period of negative temperature exposure).

Door service maintenance is also recommended after the end of repairs (painting and the other construction works) inside rooms, in which the doors are placed, and also in 3 month after the doors mounting.

Preparation for service maintenance

- Before service maintenance it is necessary to check the accuracy of doors mounting.
- The doors should be installed symmetrically relative to vertical passage axis. Doors bearing rods should be leveled upon the vertical planes and should abut to the passage frame along the full length. Local gaps not more than 5 mm are permissible. Diagonals length difference, measured in the columns extreme points, should not be more than 2 mm.
- In case of doors mounting inadequacy to the above-listed requirements service maintenance are not affected. To the client should be offer to make a partial or total (if necessary) demounting and new door mounting with the maintenance of established requirements.

In case of Client’s refusal of demounting and quality doors mounting, he should be informed in writing that subsequent doors operation is not safe.

Note: mentioned situations could happen if the doors mounting are made by unqualified specialists, or because of engineering changes made by Client, in case of passage reconstruction and so on.

SCHEDULED OPERATIONS LIST OF SECTIONAL DOORS "ALUTECH" SERVICE MAINTENANCE

Tested element (machinery)	Subunit	Criterion	Movements
Door ropes	Rope	Fractures and out-of-order cores are not permitted	Make fracture and damage tests. Replace if necessary.
	Rope fastening	Positive position	Check tightening and if necessary tighten fixing screws, locking rope on the drums. Check rope fastening on the lowest bracket, rope dressing in the thimble.
Torsion shaft	Shaft brackets fastening	Security of attachment	Check security of attachment and if necessary to make a tightening.
	Torsion spring	Integrity, lack of damages	Check spring on integrity and lack of damages, accuracy of springs carriage on the tips.
	Torsion spring	Spring tension	Check doors balancing by springs, tighten if necessary.
	Torsion spring's surface	Lack of corrosion	Check torsion spring's surface on a lack of corrosion. If necessary, clean the springs of corrosion and cover with selffeeding composition for an anticorrosion treatment of latent surfaces.
	Spring break device	Lack of damages and corrosion traces	Examine, replace if necessary.
	Binding and fixing elements	Fixing and binding safety	Check safety of square key and coupler adjustable fixing, binding.
Rope tear protection device	Lower bracket	Lack of damages	Examine, if necessary lubricate rubbing part by grease lubricant or replace it.
Door leaf	Door leaf sections	Lack of damages	Examination. If scratches and damages of section surface are existed, make touch-up (bottles with correcting paint are delivered by doors Producer).
	Reinforcing profile	Security of attachment	Check, fasten if necessary.
	Windows	Security of attachment	Check, fasten if necessary. If cracks in a plastic body or in a transparent insertion piece are existed – replace.
	Handle	Security of attachment	Check, fasten if necessary.
	Hinges	Positive position	Check, fasten if necessary.
	Hinges axis	Free running	Lubricate (with a little of grease lubricant or machine oil).
	Brackets (side, top, bottom)	Positive position	Check, fasten if necessary.

Tested element (machinery)	Subunit	Criterion	Movements
Rollers	Roller with bearing	Wear	Check, if necessary replace rollers.
	Axis	Free running	Lubricate (with machine oil).
	Distance ring	Minimal possibility of leaf displacement to the left-right relative to the passage	Check, if necessary regulate with extra distance rings usage.
Tracks	Vertical	Form, security of attachment	Check, if necessary level, fasten or replace.
	Horizontal	Form, ceiling mounting security	Check, if necessary level, fasten or replace.
Wicket door	Wicket door	Functioning	Default if necessary.
	Door pusher	Examination, adjustment	Check door pusher work, adjust if necessary.
	Key lock	Functioning, security of attachment	If necessary lubricate key lock's internal elements with a grease lubricant and fasten.
	Wicket sensor security	Functioning	Check, if necessary reinstall or replace.
Unblocking rope	Unblocking rope	Functioning, security of attachment	Check availability, fasten if necessary.
Seals	Rubber parts	Elasticity, integrity	Check, replace if necessary.
	Panel strip	Security of attachment	Check, fasten if necessary.
Locking device	Spring bar	Functioning, fastening, lubrication	Check, if necessary fasten and lubricate by grease lubricant.
	Key lock		
	Lock cylinder		Lubricate by graphite powder.
Hand drive	Hand rope	Lack of damages, security of attachment	Check, if necessary fasten or remove.
	Chain hoist	Functioning, security of attachment	Check, fasten if necessary. If a noise or jamming are present – make dismantling and lubricant change (recommended 1 time in a year).
After execution of this work list it is necessary to make rollers adjustment with gaps removal in the passage and to adjust doors motion.			

Tested element (machinery)	Subunit	Criterion	Movements
If doors are completed with an electric drive it is necessary to make the following additional works:			
Electric drive	Electric drive	Functioning.	Test electric drive according to manufacturer's manual, if necessary make an adjustment and regulation.
	Electric drive	Security of attachment and binding	Check drive fastening, if necessary fasten.
	Electric drive rail	Examination, adjustment	Examine electric drive rail with roller chain or drive belt, check their tension. It is acceptable to lubricate roller chains with lubricating grease for corrosion prevention and noise reduction. Check suspension and fastening of electric drive rail to the door leaf, fasten if necessary.
Safety systems, used while doors with an electric drive operation	Control unit (other control elements)	Binding safety, functioning.	Examine, check work and connection of photocells, microswitches, installed on safety devices.
	Edge protection system with an optical sensor	Functioning.	Check system's work while down movement on obstacle and squeezing protection.
	Amperometric sensor system for protection from closing onto an obstacle and compression	Functioning, adjustment	Check work and adjustment of an amperometric sensor system for an obstacle definition and squeezing protection, regulate if necessary.
	Man lifting protection system	Functioning.	Check electronic limitation of drive force during door leaf lifting, regulate if necessary.
Using of add-on safety devices while doors operation in a automatic mode	Illuminating lamps	Functioning.	Check, repair if necessary.
	Signal lamps	Functioning.	Check, repair if necessary.
	Light signal	Functioning.	Check, repair if necessary.
Supply cable	Supply cable	Lack of damages, binding safety	Check safety and security of drive powering connection.
After the works are done it is necessary to check doors integrity (to make not less than five door leaf open-close cycles, including leaf fixing in top, intermediate and bottom positions).			



ATTENTION: Service maintenance is not include repair works, connected with doors elements change, new elements production etc. Repair works are carried out under a special contract.

In case of Client's refusal of repair works, he should be informed in writing that subsequent doors operation is not safe.