

Service note

TYRAK - LCI AC Drive

Preventive maintenance



ABB recommends regular maintenance for AC drives throughout their lifetime in order to ensure maximum availability and to eliminate unplanned and unbudgeted repair costs.

Drives preventive maintenance service aims for increased reliability, optimized performance and extended lifetime. It consists of annual drive inspections and component replacements according to a product specific maintenance schedule.

Benefits

- Increased drive reliability
- Optimized maintenance costs and minimized repair costs
- Easy-to-plan maintenance budget
- Extended drive lifetime
- Genuine, factory-certified ABB parts

Service provides

Preventive maintenance service includes labor and service parts to perform on-site maintenance work according to the maintenance schedule:

- Visual inspection of the electrical drive and its environmental conditions
- Inspection of the drive parameters and optimization if needed
- Inspection of drive protection and monitoring
- Inspection of the power and control terminal connections

- Functional inspection of the cooling system and replacement of the parts according maintenance schedule
- Functional testing of the drive using Drive System Analysis (DSA)
- Inspection of the drive spare part inventory including function check of boards

A detailed service report including recommendations for future actions is provided once the maintenance work has been completed and inspection data fully analyzed.

Preparations before preventive maintenance

Successful preventive maintenance depends on the information recorded on the service reports and provided by the end user. Usually, the benefits of preventive maintenance increase in direct proportion to the quality of the information provided. This is especially true if the drive has not been inspected and serviced annually according to the maintenance schedule.

In order to perform the maintenance work, ABB must have free access to the drive for the duration of the shutdown as agreed. Preventive maintenance must be planned well in advance in order to reserve the resources and service parts needed.

Maintenance schedule TYRAK-LCI

A maintenance schedule provides systematic and functional means of maintaining TYRAK-LCI drives.

TYRAK-LCI	Years from start-up												
	-8	9	10	11	12	13	14	15	16	17	18	19	20--
Estimated man hours per LCI	40		10		15		5		40		5		20
Cooling													
Air filters (if installed)	R	R	R	R	R	R	R	R	R	R	R	R	R
Aging (PM)													
Cooling fans replacement with overhauled or new fans	R	I	I	I	R	I	I	I	R	I	I	I	R
RC-capacitors main converters	R	I	I	I	I	I	I	I	R	I	I	I	I
Voltage transient suppression capacitors at main voltage	R	I	I	I	I	I	I	I	R	I	I	I	I
Trigger-pulse cards Midi2	R	I	I	I	I	I	I	I	R	I	I	I	I
Trigger-pulse cards Tyrak L	R	I	I	I	I	I	I	I	R	I	I	I	I
Computer cards Tyrak L	R	I	I	I	I	I	I	I	R	I	I	I	I
Flexible flat cables on computer cards	I	I	R	I	I	I	I	I	I	I	I	I	R
Connections & Surroundings													
Cable connections	I	I	I	I	I	I	I	I	I	I	I	I	I
Dustiness, corrosion and temperature	I	I	I	I	I	I	I	I	I	I	I	I	I
Upgrade													
SW / HW	I	I	I	I	I	I	I	I	I	I	I	I	I
Measurements (DSA)	Estimated man hours per LCI												
	25		25		25		25		25		25		25
Without power	P		P		P		P		P		P		P
With auxiliary power	P		P		P		P		P		P		P
With main power, stationary drive shaft	P		P		P		P		P		P		P
With rotating drive shaft	P		P		P		P		P		P		P
At production	P		P		P		P		P		P		P
Spare parts													
Spare parts	I	I	I	I	I	I	I	I	I	I	I	I	I

Legend: R Replacement of component
 I Inspection (visual inspection, correction and replacement if needed)
 P Performance of on-site work (commissioning, tests, measurements, etc.)

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