



SMITH & LONG

SMITH AND LONG MECHANICAL LIMITED
Formerly Main Air Systems
115 Idema Road
Markham ON L3R 1A9

Mechanical • HVAC Services • Electrical • 24 Hour Response
T 905.670.7015 F 905.670.7019 www.smithandlong.com

Work Order # 159886 Details

Call Type	PreventiveMaint
Caller	Robert Hinich
Date Created	2020-08-04
Purchase Order	PO# 01577
Job #	S003563
Date Completed	Aug. 20, 2020 - 6:20:19 a.m.

Site Information

310 Governor's Road /HWDSB Dundas Valle
310 Governor's Road
Dundas, ON L9H 5P8
Phone: (000)000-0000

Billing Information

Hamilton Wentworth District School Board
20 Education Court
Hamilton, ON L9A 0B9

Work Requested

- o Check for particulate accumulation on filters, replace filter as needed if material is already on-site. Verify filters are sized and installed correctly. Clean and remove louver obstructions.
 - o Check all motors and fans operate correctly. Grease/oil as required.
 - o Check belts are tight and in good condition.
- Replace as required.
- o Check variable-frequency drive for proper operation.
 - o Check drain pans for cleanliness and proper slope. Check P-trap on drain pan for proper operation. Clean as required.
 - o Verify control dampers operate properly.
 - o Confirm equipment is bringing in outdoor air and removing exhaust air as intended.

Equipment Name: Servi-HVAC

Model:

Manufacturer:

Serial Number:

Work Requested

- o Check for particulate accumulation on filters, replace filter as needed if material is already on-site. Verify filters are sized and installed correctly. Clean and remove louver obstructions.
 - o Check all motors and fans operate correctly. Grease/oil as required.
 - o Check belts are tight and in good condition.
- Replace as required.
- o Check variable-frequency drive for proper operation.
 - o Check drain pans for cleanliness and proper slope. Check P-trap on drain pan for proper operation. Clean as required.
 - o Verify control dampers operate properly.
 - o Confirm equipment is bringing in outdoor air and removing exhaust air as intended.

Work Performed

Aug. 13, 2020
Main Office Area (2003-2006)- Located VAV/reheat coils in ceiling space in offices 2003 and 2006.

Equipment Name: 2003

Model: SFV5

Manufacturer: Price

Serial Number: 1077683-005-002

Work Performed

Aug. 13, 2020
Located VAV in ceiling space. Tested operation.

Equipment Name: 2006

Model: SDV5

Manufacturer: Price

Serial Number: 1077683-003-003

Work Performed

Aug. 13, 2020
Located VAV in ceiling space. Tested operation.



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Equipment Name: Rm 2060	Model: n/a
Manufacturer: n/a	Serial Number: n/a

Work Performed
Aug. 13, 2020
Removed various ceiling tiles in Rm 2060- located various CO2 sensors. No VAV/reheat coils located in ductwork serving classroom.

Equipment Name: AHU-1	Model: FWE285/DJX40/0
Manufacturer: Engineered Air	Serial Number: M16502 AHU-1

Work Performed
Aug. 13, 2020
Greased all necessary bearings. Lubricated damper linkages. Unit running 2 of 5 stages of A/C. Checkes VFDs. Condenser motor 2 disconnected at contactor. Checked continuity of windings- Found motor to be defective.
Belts- 1 of A63
2 of B75
Filters- 6 of 20x24x2"pl

All filters and belts should be replaced.

Will provide quote for replacement of condenser fan motor 2.

Equipment Name: AHU-2	Model: DJX100/C/O
Manufacturer: Engineer Air	Serial Number: M16502 AHU-2

Work Performed
Aug. 13, 2020
BAS on/off contacts within unit- no demand.
Greased all necessary bearings.
Belts: 2 of B83
1 of B79
Filters: 4 of 20x25x2"pl
2 of 16x25x2"pl
4 of 24x24x2"pl

Filters in ok condition, belts should be replaced.

Equipment Name: AHU-4	Model: DJX20/O
Manufacturer: Engineered Air	Serial Number: M16502 AHU-4

Work Performed
Aug. 13, 2020
Blower fan running. Checked VFDs, greased all necessary bearings, lubricated damper linkages. AHU-4 piped to remote condenser. Remote condenser turned off at rooftop disconnect due to issue.

Belts- 1 of B57
1 of B60

Filters- 4 of 20x20x2"pl
2 of 20x24x2"pl



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Filters in good condition, all belts should be replaced.

Equipment Name: Remote Condenser CU-6 (AHU-4)

Model: CUE93/O

Manufacturer: Engineered Air

Serial Number: M17428 CU6-AHU-4

Work Performed

Aug. 13, 2020
Found unit turned off at rooftop disconnect due to issue.
Found 1 of 2 condenser fan motors- fan blade broken off at hub attachment to motor shaft. Checked continuity of both condenser fan motors-
Condenser fan motor 1- ok.
Condenser fan motor 2- motor electrically defective.

Will need to provide quotation to replace condenser fan motor and blade, then test A/C operation of unit.

Equipment Name: RTU-1

Model: FW42/DJX20/O

Manufacturer: Engineered Air

Serial Number: M16502 RTU-1

Work Performed

Aug. 13, 2020
Blower motor section
- Belt access cover shroud broken off , fallen down into R/A drop.
- Mounting Feet of blower motor cracked and broken, motor holding on by 2 of 4 screws.
- Belt tension adjuster broken off, fallen into R/A duct.
- Surprisingly blower bearings in good condition.

- belt completely destroyed

Unable contest operation of unit

Belts:
1 of A38
1 of A46
Filters: 1 of 16x20x2"pl
1 of 20x20x2"pl

Will provide quote for blower section components.

Equipment Name: Remote Condenser CU-4

Model: CU31/O

Manufacturer: Engineer Air

Serial Number: M16502 CU-4

Work Performed

Aug. 13, 2020
Unit not running.
Electrical section door locked off with padlock, on site maintenance staff do not have key for lock.

Equipment Name: A/C-1 (Old Carrier RTU)

Model: 50DP016100



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Manufacturer: Carrier

Serial Number: n/a

Work Performed

Aug. 13, 2020
Evaporator completely iced up, suction line solid ice back to compressor, half of sump of compressor solid ice. Filters plugged (also wrong filters installed, portion of evaporator not covered), blower belts- in very bad condition- 1 of 2 fallen off pulley.
Left Unit turned off.

Recommend returning with new filters and belts and testing unit.

Proper Filter list- 2 of 20x25x2"pl
1 of 20x20x2"pl
2 of 16x25x2"pl
1 of 16x20x2"pl

Belts- 2 of 4L 440

Equipment Name: A/C-2 (Old Carrier RTU)

Model: 50DP012100 MA

Manufacturer: Carrier

Serial Number: 6X196

Work Performed

Aug. 13, 2020
Filters installed backwards, and plugged.
Belt in rough condition, adjusted belt tension.
Found 2nd stage A/C-BAS relay disconnected in unit. Attempted to Connected gauges- 2nd stage A/C- found high side shradder port leaking, unable to fully remove shradder cap to attach gauge.

Attached gauge to low side- found standing pressures relatively low. Re-mounted relay- found 24V across low pressure switch, indicating open- stage possibly low on refrigerant.

Connected gauges to 1st stage A/C- found pressures to be ok, 1st stage operational.

Unit may possibly trip off due to status of filters.

Recommend repairing shradder on high side 2nd stage and completing leak check and repair.

Filters- 2 of 16x20x2"pl
4 of 16x25x2"pl
Belt- 1 of A40

Equipment Name: Mits City-Multi Condenser

Model: PUHY-P120TKMU-A

Manufacturer: Mitsubishi

Serial Number: 49W01401

Work Performed

Aug. 13, 2020
Unit running upon arrival.

Aug. 17, 2020

Located Computer Labs. Put zone controllers into override mode and lowered setpoints- checked operation at condensing unit- found all to be ok.



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Equipment Name: Mits City Multi Condenser
Manufacturer: Mitsubishi

Model: PUHY-P72TKMU-A
Serial Number: 49W01200

Work Performed

Aug. 17, 2020
Located Computer Labs. Put zone controllers into override mode and lowered setpoints- checked operation at condensing unit- found all to be ok.

Equipment Name: Mits City Multi Condenser
Manufacturer: Mitsubishi

Model: PUHY-P72TKMU-A
Serial Number: 48W01189

Work Performed

Aug. 17, 2020
Located Computer Labs. Put zone controllers into override mode and lowered setpoints- checked operation at condensing unit- found all to be ok.

Equipment Name: Mits City Multi Condenser
Manufacturer: Mitsubishi

Model: PUHY-P120TKMU-A
Serial Number: 49W01400

Work Performed

Aug. 13, 2020
Mits 4 and 5 piped in tandom

Aug. 17, 2020
Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit- Monitored operation- found all to be ok.

Equipment Name: Mits City Multi Condenser
Manufacturer: Mitsubishi

Model: PUHY-P96TKMU-A
Serial Number: 4YW01193

Work Performed

Aug. 13, 2020
Mits 4 and 5 piped in tandom

Aug 17, 2020
Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit- Monitored operation- found all to be ok.

Equipment Name: Mitsubishi City Multi Condenser
Manufacturer: Mitsubishi

Model: PUHY-P120TKMU-A
Serial Number: 49W01397

Work Performed

Aug. 17, 2020
Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit- Monitored operation- found all to be ok.



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Equipment Name: Mitsubishi City Multi Condenser	Model: PUHY-P96TKMU-A
Manufacturer: Mitsubishi	Serial Number: 4ZW01238

Work Performed
Aug. 17, 2020
Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit- Monitored operation- found all to be ok.

Equipment Name: Exhauster	Model: none
Manufacturer: Universal Fan and Blower Ltd	Serial Number: 21732-3

Work Performed
Aug. 13, 2020
Belt broken sitting inside exhauster. Checked condition of pulleys, greased bearings.
Left exhauster turned off
Belt: 1 of B23

Equipment Name: Exhauster	Model: none
Manufacturer: Universal Fans and Blowers Ltd.	Serial Number: 21732-2

Work Performed
Aug. 13, 2020
Belt broken sitting inside exhauster. Checked condition of pulleys, greased bearings.
Left exhauster turned off.
Belt: 1 of B23

Equipment Name: Exhauster	Model: none
Manufacturer: Universal Fan and Blower Ltd.	Serial Number: 21732-1

Work Performed
Aug. 13, 2020
Found unit turned off on roof with no belt. Greased bearings. Turned on, tested motor operation- all ok.
Left exhauster turned off

Equipment Name: F-5 Kitchen Supply	Model: Size 123
Manufacturer: Canadian Blower and Forge	Serial Number: 65-E-2146-T27

Work Performed
Aug. 17, 2020
Removed belt guards- inspected belts and greased bearings. Found to be in good condition.
Turned unit on at starter- monitored O/A damper operation- found to be ok. Filters clean.

Belts- 2 of A60 belts
Filters- 1 of 16x20x2pl
 1 of 20x24x2pl
 2 of 16x20x2"media

Equipment Name: F-7 Kitchen Exhaust	Model: 375 B BVS
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Manufacturer: Canadian Blower and Forge**Serial Number: 65-F-2146-T5****Work Performed**

Aug. 17, 2020
Removed belt guard. Inspected bearings/belt. Found bearings to be over greased previously. Otherwise, bearings in good condition. Belt lose, but in good condition. Adjusted belt tension.
Turned on at starter.
Removed discharge air duct access panel- monitored damper operation- found all to be ok.
Re-installed duct access panel and re-installed belt guard.
Belt: 1 of A44

Equipment Name: F-2 Return Air Fan**Model: 542****Manufacturer: Canadian Blower and Forge****Serial Number: 65-E-2146-T2****Work Performed**

Aug. 17, 2020
Checked condition of bearings- found to be ok. Removed belt guard. Found belts lose. No spare belts on site. Adjusted motor for proper belt tension.
Turned on starter and tested operation- found all to be ok.
Belts: 2 of B136 belts

Equipment Name: F-1 Classroom Supply Fan**Model: 730****Manufacturer: Canadian Blower and Forge****Serial Number: 65-E-2146-T1****Work Performed**

Aug. 17, 2020
Checked condition of belts- found to be in good condition. Greased bearings, pulleys in good condition, motor pulley recently replaced. Turned unit on at starter, monitored operation of proportional damper motor for O/A dampers- observed dampers fully opening on call, and closing after power turned off.
Greased damper motor bearings.
All functioning properly at this time.
Filters- 32 of 20x25x2" media
Belts- 3 of B144 belts

Equipment Name: F-8 Washroom Exhauster**Model: nameplate missing****Manufacturer: Canadian Blower and Forge****Serial Number: n/a****Work Performed**

Aug. 17, 2020
Located unit mounted behind ductwork in Mechanical room.
Found belt severely worn, cracked and fallen off off pulleys.
Replaced with spare, and adjusted belt tension. Greased bearings. Re-installed belt guard.
Turned unit on at starter- monitored damper operation, monitored exhauster operation- found all to be operational at this time.

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Belt- 1 of A36

Equipment Name: AHU-3**Model: DJX100/O****Manufacturer: Engineered Air****Serial Number: M16502 AHU-3****Work Performed**

Aug. 17, 2020

Removed fan guards and checked condition of belts- Found to be ok. Greased bearings. Re-installed fan guards. Checked VFDs for faults- found both to be ok. Both fans running at 84%. O/A dampers fully closed, unit running 100% return air.
AHU piped to remote condenser- CU-7.

Filters- 12 of 20x24x2"pl
2 of 20x20x2"pl
E/A Fan- 1 of B79 belt
S/A Fan- 2 of B78 belts

Equipment Name: Remote Condenser**Model: CU273/O****Manufacturer: Engineered Air****Serial Number: M17428 CU7-AHU-3****Work Performed**

Aug. 17, 2020

(Piped to AHU-3)

Found 1 of 3 stages of A/C running.

Installed jumpers to energize LL solenoids, for stages 2 and 3 and force 100% A/C.

Monitored operation- system pressures ok. All condenser fans operational. Checked cond fan cycling controllers- cut-in, cut-out values ok.

Checked compressor crankcase heaters- found all to be ok.

Summary**Labor Detail**

Technician	Equipment	Labor Type Id	Date	Hours
Thomas Herridge	SV-HVAC	MECH	2020-08-13	8
Thomas Herridge	SV-HVAC	MECH	2020-08-17	8
Total				16

Material / Misc / Flat Rate Details

Equipment	Item	Description	Quantity
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Customer Signature

Customer Name: n/a

This receipt may not reflect all applicable charges due to Smith & Long, and should not be considered as final. Final charges will be as detailed on your invoice sent following this service call.

[Location Upon Signature](#)