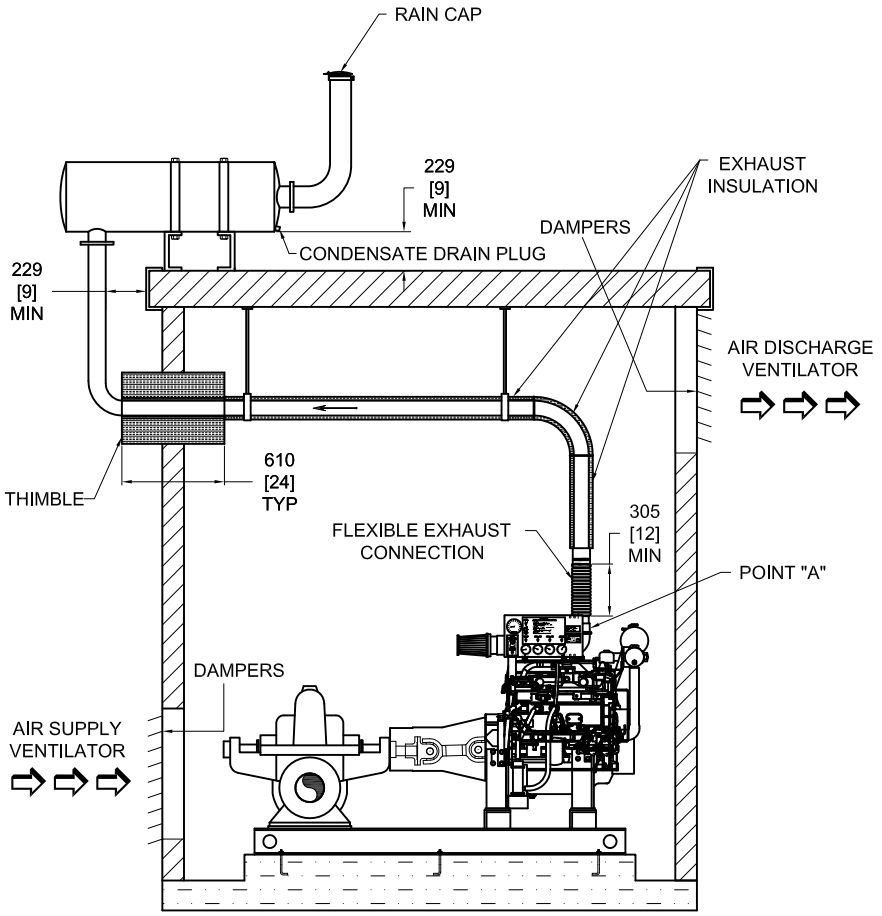
REV	DESCRIPTION	ECN#	DWN	APVD	DATE
E	REMOVED MOTORIZED LOUVER NOTES, REPLACED WITH NEW NOTES. (NOTES 9 & 10)	494	DGP	KRW	15SEP11
F	UPDATED DRAWINGS TO NFPA-20 2013 STANDARDS	3522	SAP	KRW	11FEB14
G	NFPA REFERENCE WAS 2013	N/A	JCA	JCA	17FEB16
H	UPDATED CLARKE TITLE BLOCK	N/A	JCA	JCA	24SEP18



INSTALLATION GUIDELINES:

(G) 1. REFER TO NFPA–20 2016, SECTION 11.5 FOR ADDITIONAL INFORMATION. NOTE, OTHER PIPING SYSTEMS ARE POSSIBLE. SCHEMATIC SHOWN IS FOR EGRESS THRU WALL, AND SIDE IN, SIDE OUT SILENCER.

2. THE EXHAUST PIPING SYSTEM AND SILENCER SHALL BE SUITABLE FOR THE USE INTENDED, AND THE EXHAUST BACK PRESSURE SHALL NOT EXCEED THE ENGINE MANUFACTURER'S RECOMMENDATIONS. (SEE WARNING BELOW)(11.5.2.5)

3. THE EXHAUST PIPE SHALL NOT BE ANY SMALLER IN DIAMETER THAN THE ENGINE EXHAUST OUTLET.

4. THE EXHAUST PIPE SHALL BE COVERED WITH HIGH–TEMPERATURE INSULATION OR OTHERWISE GUARDED TO PROTECT PERSONNEL FROM INJURY. (11.5.2.4)

5. THE SYSTEM MUST BE SUPPORTED SUCH THAT THERE IS NO WEIGHT ON THE FLEXIBLE EXHAUST CONNECTION.

6. THE EXHAUST PIPE SHALL BE POSITIONED IN SUCH A WAY AS TO PREVENT EXHAUST GASES FROM RE–ENTERING THE PUMP ROOM.

7. EXHAUST PIPE AND THE POINT OF EGRESS FROM THE PUMP ROOM SHALL BE CONSTRUCTED OR INSULATED SO THAT IT DOES NOT CAUSE A FIRE IGNITION RISK TO THE STRUCTURE.

8. EXHAUST SYSTEM SHALL TERMINATE OUTSIDE THE STRUCTURE AT A POINT WHERE HOT GASES, SPARKS, OR PRODUCTS OF COMBUSTION WILL DISCHARGE TO A SAFE LOCATION.

9. EXHAUST SYSTEM TERMINATIONS SHALL NOT BE DIRECTED TOWARDS COMBUSTIBLE MATERIAL OR STRUCTURES, OR INTO ATMOSPHERES CONTAINING FLAMMABLE GASES, FLAMMABLE VAPORS, OR COMBUSTIBLE DUST.

10. EXHAUST PIPES SHALL BE INSTALLED WITH CLEARANCES OF AT LEAST 9in. (229mm) TO COMBUSTIBLE MATERIALS. (11.5.2.6)

11. EXHAUST PIPES PASSING DIRECTLY THROUGH COMBUSTIBLE ROOFS SHALL BE GUARDED AT THE POINT OF PASSAGE BY VENTILATED METAL THIMBLES THAT EXTEND NOT LESS THAN 9in. (229mm) BELOW ROOF CONSTRUCTION AND ARE AT LEAST 6in. (152mm) LARGER IN DIAMETER THAN THE EXHAUST. (11.5.2.7)

12. EXHAUST PIPES PASSING DIRECTLY THROUGH COMBUSTIBLE WALLS OR PARTITIONS SHALL BE GUARDED AT THE POINT OF PASSAGE BY ONE OF THE FOLLOWING METHODS;
    (1) METAL VENTILATED THIMBLES NOT LESS THAN 12 in. (305 mm) LARGER IN DIAMETER THAN THE EXHAUST PIPE.
    (2) METAL OR BURNED CLAY THIMBLES BUILT IN BRICKWORK OR OTHER APPROVED MATERIALS PROVIDING NOT LESS THAN 8 in. (203 mm) OF INSULATION BETWEEN THE THIMBLE AND CONSTRUCTION MATERIAL.

WARNING:
THE BACK PRESSURE TO THE ENGINE EXHAUST CONSIDERABLY INFLUENCES THE POWER OF THE ENGINE AND IT'S THERMAL LOADINGS. EXCESSIVE BACK PRESSURE MEASURED AT THE ENGINE EXHAUST OUTLET CONNECTION (POINT "A") DECREASES POWER, INCREASES THE TEMPERATURE OF THE EXHAUST GAS, PRODUCES SMOKE, INCREASES FUEL CONSUMPTION, SULPHURISES THE INTERNAL COOLING WATER (WITH SUBSEQUENT DAMAGE TO THE LUBRICANTS) AND PRODUCES SERIOUS CONSEQUENCES FOR OTHER ENGINE ELEMENTS (i.e. TURBOCHARGER, etc.).

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UNLESS NOTED OTHERWISE, TOLERANCING GUIDELINES WILL BE AS SHOWN BELOW

STANDARD TOLERANCE

DECIMAL	mm	inch
X.	± 1.5	
X.X	± 0.8	± 0.06
X.XX	± 0.3	± 0.03
X.XXX		± 0.01

ANGULAR: ± 0.5°

CONTROLLED DRAWING: YES ☒ NO ☐

CLARKE®

DRWN	SKORENBLIT
DATE	31AUG04
ENGR	KRWAULIGMAN
MATERIAL	N/A
ASSEMBLY	ALL ENGINE MODELS
SIMILAR TO	C132026

NAME: TYPICAL EXHAUST PIPING DETAIL PER NFPA20 2016

PART NO. C06918 REV H

SCALE NTS | UNITS MM [INCH] | PAGE 1 OF 1