

- h. Individual fault indicator lights for low oil pressure, high water temperature, over speed, and over crank.
- i. Three position function switch marked, RUN-STOP and REMOTE.
- j. Running time meter, oil pressure, battery charging ammeter, and water temperature gauges.

H. Main Line Circuit Breaker:

- 1. Type A main line, molded case circuit breaker mounted upon and sized to the output of the generator shall be installed as a load circuit interrupting and protection device. It shall operate both manually for normal switching functions and automatically during overload and short circuit conditions. Breaker shall be rated at 500 amps.
- 2. The trip unit for each pole shall have elements providing inverse time delay during overload conditions and instantaneous magnetic tripping for short circuit protection. The circuit breaker shall meet standards established by Underwriters Laboratories National Electric Manufacturer's Association, and National Electrical Code.

I. Automatic Load Transfer Switch(es):

- 1. The amperage rating of the automatic load transfer switch shall be as follows:

ATS No. 1 - 800 amps.
- 2. Each automatic transfer switch shall be mechanically held on both the emergency and the normal side, and rated for continuous duty in an unventilated enclosure. The switches shall be double throw with the main contacts rigidly and mechanically interlocked to insure only two possible positions: Normal or Emergency. A manual operator must be provided to enable manual operation.
- 3. Rating and Performance: The automatic load transfer control shall be rated for continuous duty when enclosed in a non-ventilated NEMA 1 enclosure. It shall be rated for all classes of load including inductive and non-inductive at 600 volts and tungsten lamp load at 250 volts. The transfer switch portion of the control shall be designed, built, and tested to close on an inrush current up to and including twenty (20) times the continuous rating of the switch without welding or excessive burning of the contacts. The transfer switch shall be capable of switching load up to and including fifteen (15) times the continuous rating of the switch and capable of enduring six thousand (6000) cycles of operation, at rated current, at a rate of six (6) cycles per minute, without failure. One cycle shall consist of one complete opening and closure of both sets of contacts on an inrush current of ten (10) times the continuous rating of the switch.
- 4. Each transfer switch shall be listed under U.L. 1008. Switches utilizing reversing contactor mechanisms as a means to transfer load are disallowed and will not be considered.