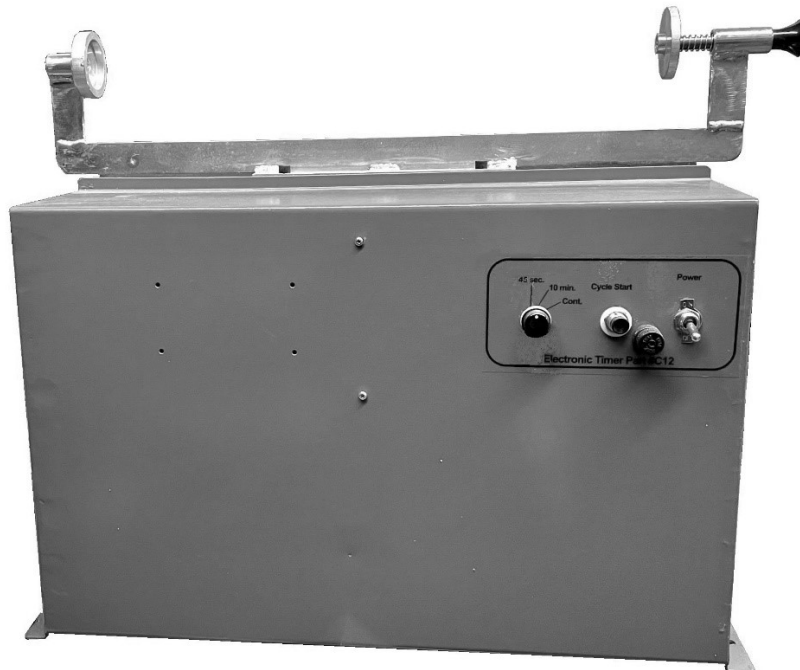


Ploog Engineering Co., Inc.

814 N. Indiana Ave.
Crown Point, IN 46307 USA
219-663-2854

Owner / Operator Manual

SC1165-7 Sand Equivalent Shaker ASTM D2419



Ploog Engineering Co., Inc.

814 N. Indiana Ave.

Crown Point, IN 46307, USA

**Instructions for
Sand Equivalent Shaker
Model SC1165-7**

The Sand Equivalent Test indicates the relative portion of undesirable clay-like or plastic fines and dusts that occur in granular soils and fine aggregates passing the No. 4 Sieve. The Sand Equivalent Shaker is also used in the Durability Index Test which measures the relative resistance of an aggregate to producing such undesirable clay-like fines when subject to certain mechanical methods of degradation. In either application, the sample to be tested is placed in a special graduated plastic cylinder with a special solution of calcium chloride, formaldehyde, and glycerin. After shaking the cylinder with the SC1165 Sand Equivalent Shaker, it is allowed to stand for a 20 minute sedimentation period. Readings are then taken on the cylinder scale for the level. The “sand equivalent” is the sand reading divided by the clay reading x 100.

Specifications

The SC1165 features an exclusive 3-way solid state timer, with a 120W, 0.78A, gear motor. A separate speed controller measures the output speed of the motor, and precisely controls the motor speed. The timer may be set to 45 seconds, 10 minutes, or continuous run. Shaking operations deliver an 8.00 +/- .04 inch stroke at a speed of 175 +/- 2 strokes per minute. The test cylinder is held securely by a base pin and a spring-loaded holder on the stoppered end.

Operation

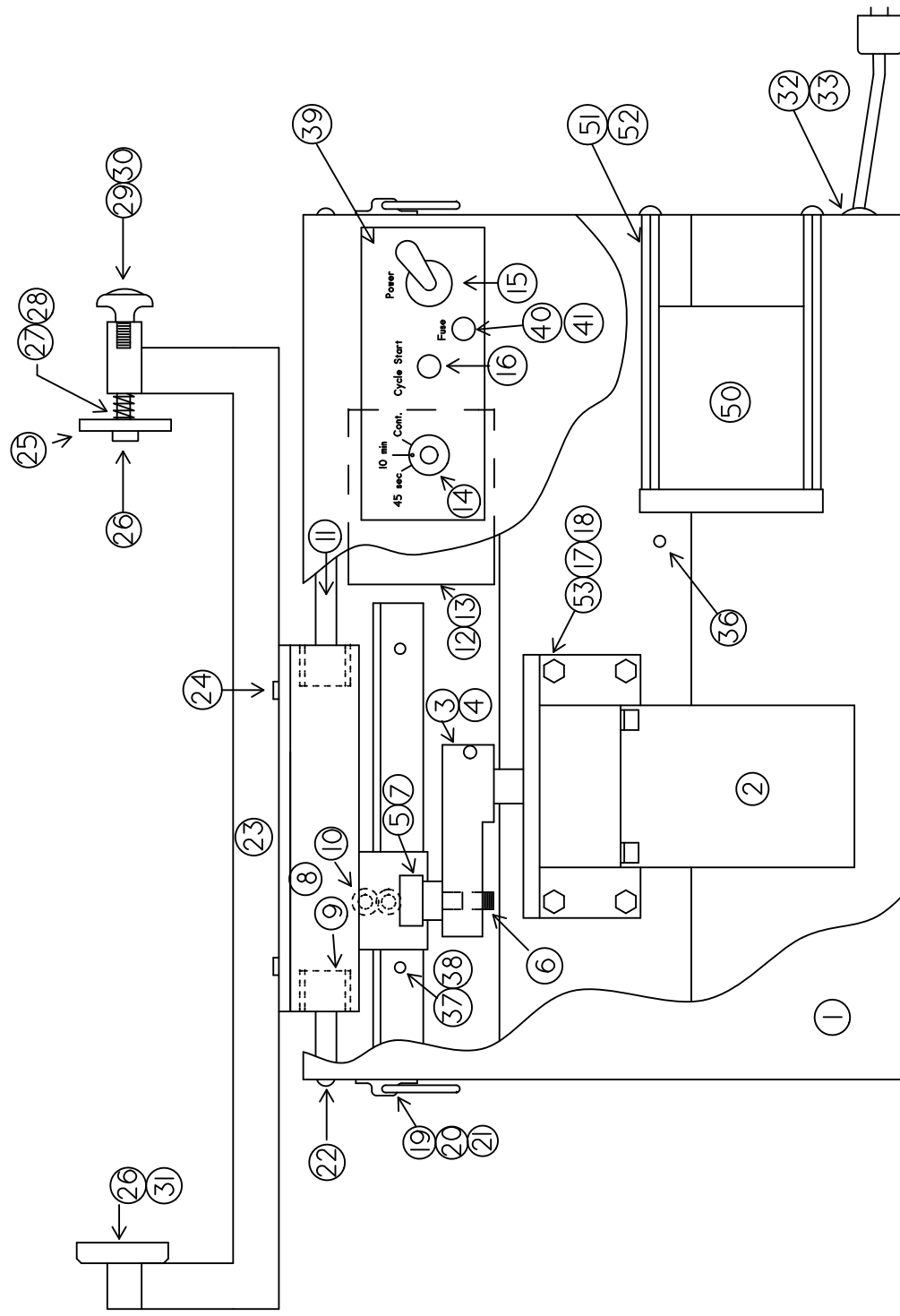
The SC1165 Sand Equivalent Shaker must be securely attached to the table or floor on which it is mounted. Four holes are provided on the base of its frame for this purpose.

Secure the test cylinder in the holder. To start the machine, switch on power, set the timer to the desired run time, and press the cycle start button. To stop the machine at any time, switch of the power.

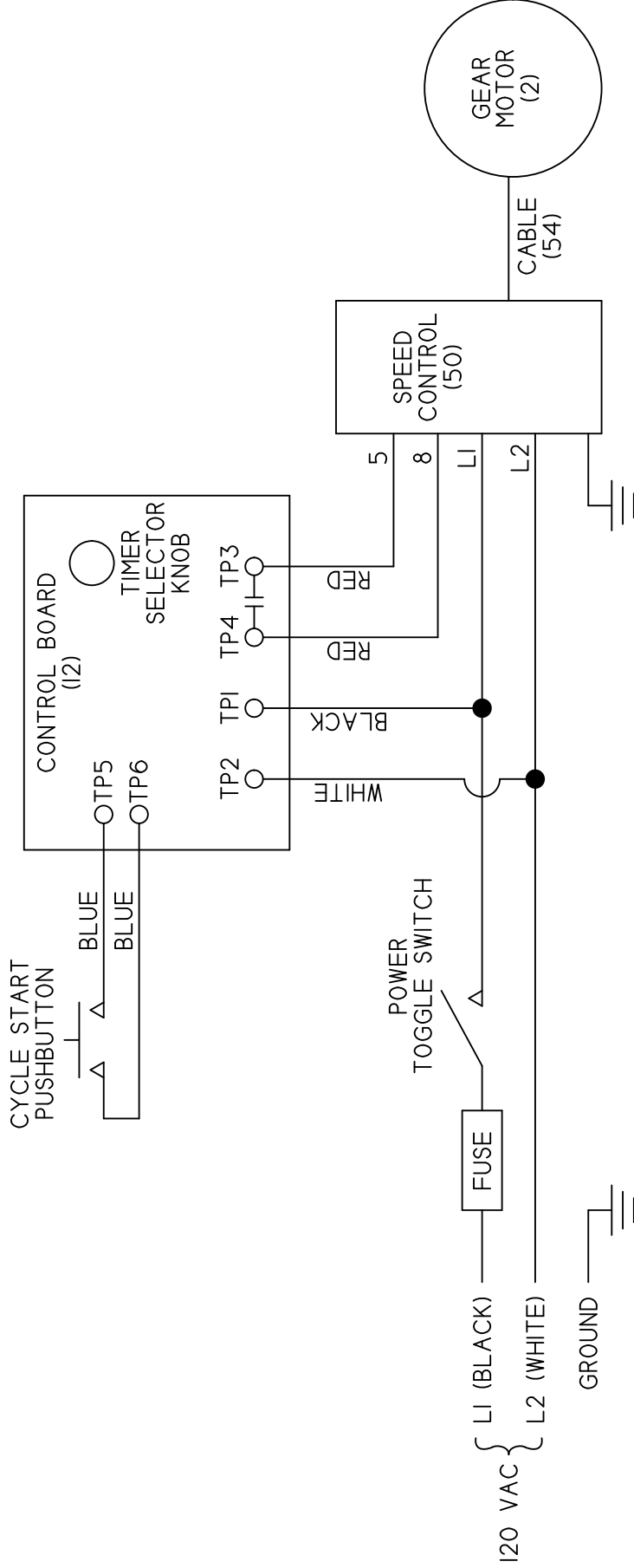
PLOOG ENGINEERING COMPANY
SC1165-7 Sand Equivalent Shaker Parts List

REF.#	PART #	DESCRIPTION	qty
1	1510P0001	Machine Case	1
2	1510P0240	Gear-Motor	1
3	1510P0103	Crank Arm	1
4	1510P0016	Hex Head Cap Screw	1
5	1510P0017	Cam Follower	1
6	1510P0017.1	Lock-screw	1
7	1510P0004	Spacer	1
8	1510P0005	Yoke	1
9	1510P0018	Bushings	2
10	1510P0019	Cam Follower	2
11	1510P0006	Slide Rod	1
12	1510P0007	Control Board	1
13	1510P0044	Control Board Screws	2
14	1510P0020	Knob	1
15	1510P0014	Power Switch	1
16	1510P0015	Cycle Start Button	1
17	1510P0021	Hex Head Cap Screw	4
18	1510P0022	Lockwasher	4
19	1510P0123	Handle	2
20	1510P0024	Pan Head Screw	8
21	1510P0025	ESNA Nut	8
22	1510P0026	Button Head Screw	2
23	1510P0008	Tube Holder Assembly	1
24	1510P0027	Socket Head Cap Screw	4
25	1510P0009	Tube Holder Male End	1
26	1510P0028	Screw	2
27	1510P0129	Spring	1
28	1510P0010	Shaft	1
29	1510P0030	Knob	1
30	1510P0030.1	Stud for Knob	1
31	1510P0111	Tube Holder Female End	1
32	1510P0031	Power Cord	1
33	1510P0032	Strain relief	1
36	1510P0034	Ground Screw	1
37	1510P0013	Angle Guide	1
38	1510P0035	Button Head Screw	3
39	1510P0012	Decal	1
40	1510P0037	Fuse holder	1
41	1510P0038	Fuse, 4 Amp MDL-4-R	1
50	1510P0250	Speed Controller	1
51	1510P0051	Mounting Standoffs	2
52	1510P0052	Screws for above	4
53	1510P0053	Motor Mounting Bracket	1
54	1510P0254	Cable, Control to Motor	1

Always give complete serial number when ordering parts.



PLOGG ENGINEERING CO., INC.			
Scale:	NTS	Drawn by:	RGF
Date:	05/17/2023	Revised:	8/5/24
SAND EQUIVALENT SHAKER MODEL SCII65-7			
Drawing Number		PA 223	



PLOOG ENGINEERING CO., INC.

Scale:	N/A	Drawn by:	RGF
Date:	06/04/2021	Revised:	8/24

SC1165-7 WIRING DIAGRAM

Drawing Number
PA223-6