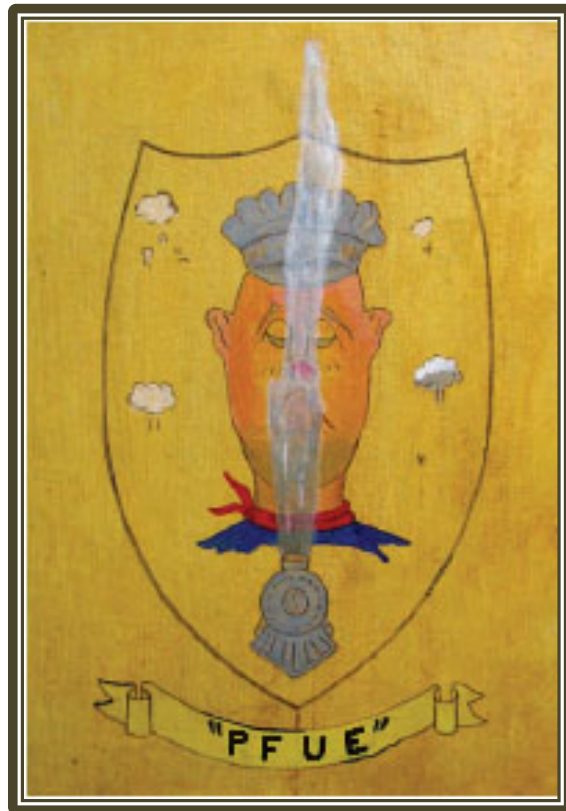


# Cinder Sniffers, Inc.



Established 1955

## Member's Handbook

## CINDER SNIFFERS, INC.

Cinder Sniffers is a group of individuals organized to share a common interest in the design, construction, and operation of small steam locomotives. The club was begun in 1955 with five charter members. The group was incorporated in 1965, and has a present membership of approximately 50 full members and about 30 members of various other classifications.

The original objective of the club was the development of a track site for the operation of steam locomotives. Twenty one hundred feet of 'multi-gauge' ground level (except at bridges and trestles) mainline trackage with several hundred feet of sidings and other service trackage is currently in operation at the site in rural Indiana. All track consists of steel bar stock welded to metal ties, and accommodates 2 1/2", 3 1/2", and 4 3/4", 7 1/4", and 7 1/2" gauges. The track features 1,000 ft. of mainline trackage with a long deep cut, bridges (one covered), a long high earth fill, and a 140 ft. long, 17 ft. high, curved trestle. In 2008 a new yard was added on the North end consisting of four tracks for parking 7-1/2 gauge trains and their engines.

Meetings are held on the second Friday evening of each month from November through April. From May through October meetings are held on the second Saturday at the track, followed by a run. Flexibility to the schedule is permitted upon majority approval by the Executive Committee. Meetings are hosted on a voluntary basis by one or two members either in a member's home, at the track (in good weather), or at some other appropriate place selected by the host(s). *The wives of the members are frequently invited to the meeting – they meet "upstairs" while the men conduct their business "downstairs"*. (Excerpt from original by-laws.) Meeting notices are e-mailed to each full member by the Corresponding Secretary approximately one week prior to each meeting. Those members without e-mail will receive a hard copy via USPS. Prospective members are also mailed meeting notices for at least three months running.

Work Sessions are held on a regular basis during warm weather months, every Wednesday. Extra work sessions may be scheduled as needed with members being notified by mail / e-mail. Everyone is encouraged to attend work sessions.

In addition to meetings and work sessions, "Special Run Days" are held on the Saturday after Thanksgiving and on New Year's Day. Besides the special run days, there are regular club run days presently scheduled on each second Saturday of May through October immediately following the meeting. The members invite relatives, friends, and those interested in live steam to be a guest of the Cinder Sniffers on these run days.

Funds for the operation of the club are acquired through dues and initiation fees. Other sources such as a flea market and fare box donations on run days contribute a significant amount for special projects. Land acquisition has been handled in the past by the sale of "stock" (which carries no voting rights or monetary dividends).

Dues consist of \$65.00 per year for full members, \$20.00 per year for associate members, \$5.00 for junior members and \$25.00 for spousal members. Full members pay a \$50.00 initiation fee during the first year of membership. This initiation fee is waived however, for those who have been either junior or associate members for three full years. Full members and spousal members have voting rights. Associate membership is offered as an introductory membership to those new in the hobby, and to those who live at such distance as to make it impractical to regularly attend meetings. The club publishes a

newsletter, *The Mud Ring*, approximately 6 times per year. Meeting notices are sent to all members who have email. Only full members, junior members, and other prospective full members are eligible to receive paper copies of meeting notices and *The Mud Ring* via US Postal Service.

To become a full member of the Cinder Sniffers, the prospective member is asked to attend three meetings before making a commitment. This gives a person the chance to know if the Cinder Sniffers is an organization in which they wish to become involved. After the third meeting the prospective member is to notify a member of the Executive Committee (any club officer) of his intent to join. The Executive Committee will pass on the request for membership (no one has been refused yet) and the new member will be notified. At that point, the new member starts paying dues and has a year to pay the initiation fee.

The new full member receives a key to the track which bears the right to use the track whenever desired. The new member is also to receive a handbook that contains information concerning the structure and operation of the club, including By-Laws, Track Operating Rules, and other information.

**CODE OF REGULATIONS  
CINDER SNIFFERS, INCORPORATED**

STATEMENT OF PURPOSE

To promote, develop, and otherwise engage in the hobby of live steam model railroading; to purchase, manufacture, or otherwise acquire and hold property (both real and personal) necessary to engage in live steam model railroading; to carry on activities through committees and other-wise so that members and others may fully utilize and enjoy the facilities and activities of this association; and to carry on other activities incidental thereto.

ARTICLE I

MEETINGS

Section 1.     Annual Meeting

The Annual Meeting of the members of the Cinder Sniffers shall be held at a location to be designated by the Executive Committee on the second Friday of January of each year at the hour designated in the notice therefore.

Section 2.     Special Meetings

Special meetings of the members may be held at any time upon call by the President or a majority of the Executive Committee.

Section 3.     Regular Meetings

Regular meetings of the members shall take place upon the second Friday of each month during the winter months and on the Saturday after the second Friday, spring through summer, unless a majority of the Executive Committee shall suspend a monthly meeting or designate another date.

Section 4.     Quorum

A minimum of six (6) Family and/or Spousal members plus four (4) Executive Committee members shall constitute a quorum for the transaction of business at any meeting of the members.

## ARTICLE II

### OFFICERS

#### Section 1. Officers

- . There shall be officers as follows: President, Vice President, Recording Secretary, Corresponding Secretary, and Treasurer.
- . The manner and timing of election and term of office shall be defined in the By-laws of the corporation. These elected officers shall serve as the Trustees of the corporation.

#### Section 2. President

- . The President shall preside at all meetings of the members and the Executive Committee and perform generally all the duties usually incident to such office, and such other and further duties as may be required of him by the members and Executive Committee.
- . The President shall be a voting member of all committees.

#### Section 3. Vice President

- . The Vice President shall perform all the duties of the President in case of the latter's absence or disability.
- . The Vice President will be a permanent member of and head of the Safety Committee.

#### Section 4. Recording Secretary

- . The Recording Secretary shall keep an accurate record of all transactions of the members and the Executive Committee.
- . The Recording Secretary shall give all notices required by law and all notices provided by the Code of Regulations or By-laws of the corporation.
- . The Recording Secretary shall keep a proper secretary's book and shall have properly recorded therein all minutes of meetings of the members and the Executive Committee and such other matters as shall be proper and necessary.
- . The Recording Secretary shall perform all the duties of the President in the case of the absence and/or disability of both the President and Vice President.
- . At the expiration of his term of office, the Recording Secretary shall deliver all books, papers, monies, rights, and property of the corporation in his hands to his successor in office or to the President.

#### Section 5. Treasurer

- . The Treasurer shall receive and safely keep all monies belonging to the corporation, and the same shall be disbursed under direction of and to the satisfaction of the Executive Committee and/or voted upon in general membership meeting if applicable.
- . It shall be the duty of the Treasurer to keep an accurate account of the finances of the corporation on the books of the corporation prepared and furnished for that purpose.
- . All books shall be open for inspection and examination by the Executive Committee or any committee of the members appointed for that purpose.
- . The Treasurer shall render an account of the standing of the corporation at the Annual Meeting of the members and at such times as the Executive Committee may require.

- It shall be the duty of the Treasurer to collect all initiation fees, dues, and other monies due the corporation.
- The Treasurer shall submit necessary Forms to the IRS, annually, or as required. (Currently, the *e-Postcard* form must be submitted electronically by May 15 for the prior year.)
- The Treasurer shall submit the statement of “Continued Existence” to the State of Ohio every five years, or as required.
- At the expiration of his term of office, the Treasurer shall deliver all books, papers, monies, and property of the corporation in his hands to his successor or to the President.

Section 6. Corresponding Secretary

- The Corresponding Secretary shall carry on all written correspondence of the corporation.
- The Corresponding Secretary shall notify the members of all meetings.
- The Corresponding Secretary shall be responsible for securing locations for the meetings of members.
- It is the duty of the Corresponding Secretary to report all correspondence received in the name of the corporation to the Executive Committee and/or the club membership at a regular meeting.
- The Corresponding Secretary shall maintain a record of meeting hosts and Run Committee members.
- The Corresponding Secretary shall oversee the corporation’s web page, maintaining domain registration and regular updates to the information therein.
- At the expiration of his term of office, the Corresponding Secretary shall deliver all books, papers, monies, right, and property of the corporation in his hands to his successor in office or to the President.

Section 7. President Emeritus

- Anyone serving for ten (10) years shall become a President Emeritus and as such will be a permanent member of the Executive Committee.

ARTICLE III

EXECUTIVE COMMITTEE

Section 1. Membership of the Executive Committee

The Executive Committee shall be composed of the elected officers of the corporation and the President Emeritus. Each Executive Committee member shall have an equal vote.

Section 2. Quorum

A quorum of the Executive Committee shall consist of the president, or in his absence the vice President, and any two other officers.

Section 3. Powers of the Executive Committee

- The Executive Committee shall have the control and management of the business, funds, and property of the corporation, subject only to the action of the full members in meeting assembled.
- The Executive Committee may not adapt By-Laws that are inconsistent with these regulations.
- The Executive Committee may promulgate and enforce rules governing the use of the property.
- The Executive Committee may fill vacancies in its' own membership for the remainder of the unexpired term of office.

- The Executive Committee may appoint standing committees or special committees of the corporation and, at will, change their personnel.
- The Executive Committee may remove any officer of the corporation for cause by majority vote of the Executive Committee, at a meeting thereof, duly called and held for such purpose.

Section 4. Executive Committee Meetings

The Executive Committee shall hold meetings as the President, or in his absence, the Vice President shall designate. The minutes of each Executive Committee meeting shall be read at the first regular meeting of the members following the meeting of the Executive Committee. Any member of the corporation may attend an Executive Committee meeting if they so desire.

ARTICLE IV

MEMBERSHIP

Section 1. Eligibility

Any person who has an interest in upholding and furthering the purpose of the corporation is eligible for membership.

Section 2. Membership Classifications

- There shall be Family Members as defined in the By-laws of the corporation.
- There shall be Spousal Members as defined in the By-Laws of the corporation.
- There shall be Associate Members as defined in the By-laws of the corporation.
- There shall be Junior Members as defined in the By-laws of the corporation.
- There shall be Honorary Members as defined in the By-laws of the corporation.
- 
- There shall be Life Members as defined in the By-laws of the corporation.
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ARTICLE V

FEES AND DUES

There shall be fees and dues as defined in the By-laws of the corporation.

ARTICLE VI

ORDER OF BUSINESS

The order of business at all meetings, both of the members and of the Executive Committee, shall be:

1. Reading of the Minutes
2. Report of the Officers
3. Report of the Committees
4. Elections (when applicable)
5. Old Business
6. New Business

7. Miscellaneous Matters

ARTICLE VII

Amendments to these regulations may be made at any meeting of the members (annual, regular, or special) by a two-thirds vote of those present.

ARTICLE VIII

The decision of the Executive Committee on any question involving the interpretation of these regulations shall be final.



**BY-LAWS**  
**CINDER SNIFFERS, INCORPORATED**  
as reviewed September 8, 2010

**STATEMENT OF PURPOSE**

To promote, develop, and otherwise engage in the hobby of live steam model railroading; to purchase, manufacture, or otherwise acquire and hold property (both real and personal) necessary to engage in live steam model railroading; to carry on activities through committees and otherwise so that members and others may fully utilize and enjoy the facilities and activities of this association; and to carry on other activities incidental thereto.

**ORGANIZATIONAL**

1. **Term of Office of Officers**

The term of office of officers shall be two years, beginning on January first of the even years.

2. **Election of Officers**

A nominating committee of three (3) members shall be appointed by the President at or before the August meeting of the odd year. The committee shall report a list of nominations at the September meeting. At that meeting, additional nominations may be made from the floor. The election shall be held at the October meeting. The election shall be by ballot and a majority of all votes cast be necessary to a choice.

3. **Family Membership**

Existing and future "full (voting) memberships" shall be defined as "Family Memberships" with no changes in dues structure and one vote per adult Family Membership.

A Family Membership shall be defined as a single person, as single person with children, or a married couple with or without children. Children shall be defined as any legal dependents under the age of 18, living at home or elsewhere, and registered with the Secretary and Treasurer of the Club at the time of membership.

A person may become a Full Member upon approval by the Executive Committee after having attended three (3) regular meetings of the Members. Acceptance of the new Member will be voted upon at a regular Meeting.

The Executive Committee may waive the three (3) meeting rule above.

A Full Member shall have full voting rights, key access to club property, and may be an elected officer.

3a. Spousal Membership

A Spousal Member shall be defined as the spouse of an existing Family Member.

They will have voting privileges, but will not receive a key nor the Mud Ring.

4. Associate Membership

An Associate Member shall be an eligible person who lives at such a distance to make it impractical to attend regular meetings or is new to the hobby and who does not yet seek Full Membership.

An Associate Member shall have no voting rights, may not hold office, and will not have key access to the property.

5.

6. Junior Membership

A Junior Member shall be an eligible person of less than eighteen (18) years of age or a full time student.

A person may become a Junior Member upon approval of the Executive Committee after presentation by their member sponsor.

A Junior Member shall have no voting rights, May not hold office and will not be issued a key to the property.

7. Honorary Membership

Honorary Members are those who have membership bestowed upon them by a majority vote of the regular members.

They shall be free of dues or fees.

They are not voting members.

This membership is given to those who have given something special to the club or hobby.

8. Life Membership

Life Membership is given to those members who have the age of eighty (80) years. It may also be given by a majority vote of the regular members.

They shall be free of dues and fees.

This membership shall have all the rights of a Full Member and shall be retained for life.

9. Assessments and Fines

Special assessments may be made and levied proportionately upon the Full Members by a majority vote of those members eligible to vote.

There shall be no fines levied against any person for any reason.

10. Corporate Agent

The Secretary of the State of Ohio must be advised promptly if there occurs a change in the identity or address of the Corporate Agent. In case the Corporate Agent is not available to handle the notification, the Corresponding Secretary shall do so.

## **POLICIES**

11. Track Operating Rules

The Track Operating Rules are considered an appendix to these By-laws.

12. Treatment of Property

We do not have trash removal service; therefore, each member shall provide for the removal of their trash or garbage.

Anyone planning to do work which will cause major changes from the established pattern shall check with the Executive Committee. Examples are: erecting or removing structures; removing or placing substantial amounts of soil; removing or planting plants; adding materially to track ballast; or changing wiring or plumbing.

Major changes shall be adequately presented to and approved by a vote of the members.

13. Donations

Donations of money are acceptable, however property shall not be accepted until the Executive Committee or an Executive Committee member approves the same.

14. Fires

Care shall be taken at all times with fires. There shall be no open fires when it is windy.

There shall be no open fires on the ground for cooking or camp fires. Brush may be burned in the parking lot on work days only and with at least two adults in attendance.

Leaves shall be raked away from the vicinity of buildings and from under elevated trackage.

15. Admissions or Ride Charges

There shall never be any charges for admission or rides.

16. Control of Children

Adults shall exercise control over children. At the time a member invites a guest, they should point out the need of this control in the face of moving rolling stock.

17. Camping

Camping at the track will be allowed only by prior approval of the Executive Committee.

18. Draft Beer

There shall be no draft beer dispensed on Cinder Sniffers property track site. Only bottles or cans provided by individuals for their own personal consumption are permitted.

19. Club Newsletter

There shall be a club newsletter to be known as "The Mud Ring".

The Editor of "The Mud Ring" shall be appointed by the Executive Committee.

The club newsletter shall be issued on a bi-monthly schedule.

The editor of "The Mud Ring" will normally attend Executive Committee meetings in a non-voting advisory capacity.

20. Boiler Inspection

All boilers operated on the club premises and at club functions shall be tested according to the "Boiler Inspection Procedure" which is an appendix to these By-laws.

There shall be a Chief Boiler Inspector who shall be appointed by the Executive Committee.

The Chief Boiler Inspector shall be a permanent member of the Safety Committee. There shall be four (4) additional Boiler Inspectors appointed by the Chief Boiler Inspector and approved by the Executive Committee.

21. Safety Committee

There shall be a Safety Committee, consisting of the Vice President and five (5) additional members appointed by the Executive Committee. The Vice President shall be the head of the Safety Committee.

The Safety Committee is responsible for the enforcement of the Track Operating Rules, Boiler Inspections, and all other matters pertaining to the sensible and safe conduct of all activities at the track site.

22. Superintendent of Grounds

There shall be a Superintendent of Grounds appointed by the Executive Committee.

The Superintendent of Grounds shall be responsible for the organization of work parties for the care maintenance of the grounds, excluding trackage and buildings.

All maintenance work affecting the grounds shall be cleared through the Superintendent of Grounds.

The Superintendent of Grounds will normally attend the Executive Committee meeting in a non-voting advisory capacity. If unable to attend said meeting, they should make a verbal or written report to any member of the Executive Committee prior to the meeting.

23. Superintendent of Building Maintenance

There shall be a Superintendent of Building Maintenance appointed by the Executive Committee.

The Superintendent of Building Maintenance shall be responsible for the organization of work parties for the care and maintenance of buildings excluding trackage and grounds.

All maintenance work affecting buildings shall be cleared through the Superintendent of Building Maintenance.

The Superintendent of Building Maintenance will normally attend Executive Committee meetings in a non-voting advisory capacity. If unable to attend said meeting, they should make a verbal or written report to any member of the Executive Committee prior to the meeting.

24. Superintendent of Track Maintenance

There shall be a Superintendent of Track Maintenance appointed by the Executive Committee.

The Superintendent of Track Maintenance shall be responsible for the organization of work parties in the care and maintenance of the trackage and associated equipment, excluding buildings and grounds.

All maintenance work affecting the trackage shall be cleared through the Superintendent of Track Maintenance.

The Superintendent of Track Maintenance will normally attend Executive Committee meetings in a non-voting advisory capacity. If unable to attend said meeting, they should make a verbal or written report to any member of the Executive Committee prior to the meeting.

25. Run Committee

A Run Committee shall be appointed by the President for each club run and shall conform to the Club Run Procedure which is an appendix to these By-laws.

If a Run Committee is not formed for a club run, the Executive Committee may cancel the run or take other action it deems necessary to conduct a run.

26. Violations

Any member violating the club Code of Regulations, By-laws, and/or Safety Rules may be brought before the Executive Committee for disciplinary action up to and including expulsion from the club.

27. Participation in Events Sponsored by Other Organizations

Statement of Policy

Cinder Sniffers, Inc. is a registered non-profit organization, organized for the preservation, construction, and operation of live steam and large scale models. The Cinder Sniffers will participate, as a club, in events sponsored by other organizations, provided that there is a vote by the club members to do so. It will be the responsibility of the sponsoring organization to provide the Cinder Sniffers with adequate property and liability insurance coverage while they participate in these events.

In view of the fact that our equipment is large and heavy, and considering that our members always participate in such events as a family rather than individual members, the Cinder Sniffers require that the following conditions be met as a condition for our participation in such events:

- A. We will require as many free admission passes as there are members (and their families) participating in the event. Considering that we have the expense of transporting our equipment, parking fees, and meals, we do not consider this an unreasonable request.
- B. We will need access to the show floor, preferably with our vehicles, since our equipment is heavy.
- C. We will require sufficient, strong tables and/or floor space to display our equipment.
- D. If operation of audio/visual aids is requested and/or operation of certain of our equipment, we will require adequate electrical power in the booth.
- E. If we are requested to provide a ride for show attendees, we will reserve the right to place a donation box at the ride and to receive the proceeds from it.
- F. We will require that the show sponsors provide proper security for our equipment while it is at the show site.
- G. We will not require any payment from the show sponsors for our participation.
- H. If the show sponsor offers the Cinder Sniffers a gratuity for our display, we will be pleased to accept it.
- I. The Cinder Sniffers will provide adequate personnel to man the display and provide information to the public.

J. Any other conditions of participation required by either the Cinder Sniffers or the show sponsor must be agreed upon prior to the show or event.

28. Memorials

The Treasurer is authorized to send a \$50.00 memorial.

30. Pets

Pets and animals will not be allowed on the Cinder Sniffer, Inc. property when we are having public run days, CSI meetings or other authorized club events. If a pet or animal is inadvertently brought to the track, the owner must secure the pet or animal out of harm's way. If a club member uses the track for his or her own enjoyment (private), then their pets or animals may attend, but a leash must be available at all times. Owners are responsible for removal of animal deposits left on Cinder Sniffer property.

Revised Code of Regulations and  
By-laws accepted by members  
and ratified 11-08-13 by Executive Committee

# **CINDER SNIFFERS INCORPORATED**

## **TRACK OPERATING RULES**

**August 14, 2004**

The rules herein set forth govern the railroad operated by Cinder Sniffers Incorporated (CSI) on the property located on Indiana Highway 1 just south of Dover, Indiana.

These rules dated August 14, 2004, shall take effect on September 1, 2004 and supersede all previous rules.

### **GENERAL NOTICE**

SAFETY is of the first importance in operations. Obedience to the rules is essential to the safety of the participants, whether they be passengers, trainmen, enginemen, or bystanders and to the safety and protection of the property. To remain an active member is an assurance of the willingness to obey the rules

### **GENERAL RULES**

- A. Individuals who are operating locomotives and/or trains must be familiar with these Safety rules and Bulletin Board Orders. They will comply with instructions issued by proper authority when applicable to operations.
- B. Where in these rules, in special instructions, or in Bulletin Board Orders the following terms appear, they will be defined and applied as follows:
  - 1. Trains: to trains or engines.
  - 2. Trainmen: to flagmen, switch tenders, conductor/flagman
  - 3. Engineer: to person driving the train
  - 4. Engine(s): a unit propelled by any form of energy, or a combination of such units.
  - 5. Train: an engine or more than one engine coupled, with or without cars.
- C. The word “flagman” in rules, in special instructions, or in Bulletin Board Orders refers to anyone to whom the word flagman is applicable under the rules governing flag protection.
- D. Any term ending in “...man” applies to members of either sex.
- E. Members must be conversant with all the rules and special instructions. If in doubt, ask the Safety Committee for an explanation.
- F. Visiting engineers must sign for this book of rules.
- G. Members must render every assistance in their power in carrying out the rules and to report to the Safety Committee any violation thereof.



- H. Accidents, failure of water or power supplies, defects in track, bridges, signals, or any unusual condition which may affect the safe movement of trains must be promptly reported to a member of the Safety Committee or to a Club Officer.
- I. In case of danger to the property, all members must unite in its protection.
- J. Members should exercise care and economy in the use of Cinder Sniffer property, and when leaving, see that keys, materials, and equipment are properly stored and/or returned to the proper place or person.
- K. Except when special instructions apply, the last to leave the premises is responsible for securing all buildings, turning off all power, shutting down the water system and closing and locking the main gate.
- L. **No one will operate or ride a train while intoxicated.** Violators will be requested to leave the premises by a member of the Safety Committee or a Club Officer.
- M. All boilers operated on the club premises, and at club functions wherever held, are to bear valid certification of having been hydrostatically tested to at least 1 ½ times the working pressure within twelve months prior to operation. Certification is valid only if issued by a Cinder Sniffer Club Boiler Inspector or the appointed boiler inspector of another recognized live steam club or a state boiler inspector.
- N. The guide for Locomotive Boiler Construction that appears in the Feb. '87 issue of ModelTec magazine shall apply as the Club minimum standards for construction of steel boilers, and is included in each member's club manual.
- O. Members must be attentive to prevent injury to themselves and others. They must inform each other of operating hazards – keeping limbs within the limits of the cars, standing clear of tracks, watching for train crossings, etc.

## **OPERATING RULES**

**The following train operating rules apply to any train operating on club tracks.**

1. No train shall operate in excess of five (5) actual miles per hour. (5 MPH is equivalent to approximately 12 seconds between “mile” posts that are located 88 feet apart).
2. One train shall not follow another closer than 100 feet at the maximum safe operating speed of 5 MPH. Slower speeds permit proportionate closer following.
3. No train shall stop on the mainline for any purpose other than an emergency situation. Every effort should be made to keep the mainline clear for continuous operation.
4. All fuel, water, servicing and repairs shall be taken care of on sidings and side tracks provided for such purposes.

5. All passengers must entrain and detrain at the designated station.
6. All trains stopped on the mainline shall be protected to the rear by a trainman acting as flagman. If no trainman is present, the engineman is to flag the rear of the train.
7. In flagging the rear of a stopped train, the flagman must be positioned such that he/she is visible to the engineman of a following train at least fifty (50) feet to the rear of the stopped train.
8. All siding switches must be set for the mainline after a train moves through. All mainline switches are to be left as is after passing through them. NOTE THAT OUR ENTIRE TRACK IS MAINLINE EXCEPT FOR THE SIDING AT THE CAR BARN AND THE FAIRFAX YARD!

This rule may be modified when a switch is operated under the supervision of a switch tender at which time special instructions will apply.

9. **Only the engineer will operate switches** unless operated by a switch tender at which time special instructions will apply.
10. Trains arriving first shall have the right-of-way at switches.
11. Engineers must be attentive to and obey fixed color signals. Signals indicate the setting of a switch being approached. A sheet is attached explaining all signals.
12. Young children riding on trains as passengers will require the supervision of an adult, or a conductor.
13. The engineer will be responsible for the safe conduct of all passengers.
14. All trains operating on club tracks must demonstrate the ability to stop within 50 feet on level track, from a maximum speed of 5 MPH while carrying a full load. Dragging feet is not an acceptable method of stopping.
15. A full load is defined as a load of 100 lbs. per foot of car length. (e.g. 500 lbs. on a 5 foot car, 600 lbs. on a 6 foot car, etc.) for 1 ½" scale or larger trains. Proportionally smaller loads will be required on smaller scale equipment.
16. Appropriate hand and lantern signals shall be used by trainmen to control train movements where applicable. These signals are as follows:
 

|              |                    |
|--------------|--------------------|
| Move forward | Up and down motion |
| Back Up      | Circular motion.   |
| Stop         | Horizontal motion. |
17. All trains must have a functioning audible warning device. Appropriate whistle signals will be used by enginemen to indicate train movements as follows:

|                        |         |                           |
|------------------------|---------|---------------------------|
| Stopped                | •       | (1 short blast)           |
| Start forward movement | • •     | (2 short blasts)          |
| Start reverse movement | • • •   | (3 short blasts)          |
| Danger, or Need Help   | —————   | (Continuous)              |
| Grade Crossing         | — — • — | (2 long, 1 short, 1 long) |

18. All solid fueled engines shall be equipped with effective ash pans to prevent continuous dropping of hot coals on right-of-way.
19. All oil fired engines shall be equipped with effective catch pans to prevent oil dripping or spilling on the right-of-way.
20. All solid fueled engines shall be equipped with effective spark arresters which will minimize the emission of hot sparks during dry weather. A fire hazard sign will be posted when spark arrestors are mandatory.
21. All trains operating at night shall display a headlight to the front and red light(s) to the rear.
22. Each coupling between the unit upon which the engineer rides and the powered unit shall be backed up by a welded steel safety chain. For 1 ½” scale trains, use 3/16” (5mm) chain and for 1” or ¾” scale trains, use 1/8” (4 mm) chain. A safety cable of equivalent strength may be substituted in all applications which call for safety chain.
23. Safety chains are optional where link and pin couplers are used. They are a **must** where knuckle couplers are used.
24. Welded steel safety chains or equivalent safety cable shall be used to hold the loaded train cars together should the normal coupling fail. Attachments used to fasten either chains or cable to the equipment will also be appropriately sized.
25. Drawbars must be at least 3/16” steel and attached with ¼” or larger pins.
26. Trains will not be permitted to operate with safety chains as normal couplings.
27. Former IBLS wheel standards shall apply.
28. Trains with 3 or more passenger carrying cars must have a conductor while hauling passengers.
29. The use of radios is recommended for communication between the conductor and the engineer on passenger trains.
30. **ANY EQUIPMENT DETERMINED TO BE UNFIT OR UNSAFE FOR OPERATION BY THE SAFETY COMMITTEE SHALL BE PROHIBITED FROM OPERATION.**

## Cinder Sniffer Track Signals

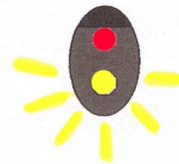
The signals installed at the Cinder Sniffer track give you the position of the switch points as you approach a switch. There are also **PERMISSIVE** signals that allow you to pass the red signal at **SLOW** speed being prepared to stop.

The following are examples of the Cinder Sniffer Signal System.



Left Signal

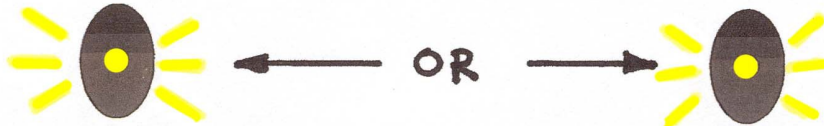
This is an **ABSOLUTE STOP** Signal.



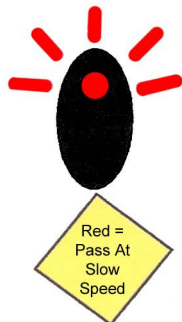
Right Signal

Switch is set and you may Proceed through Switch

**NOTE:** If Both Red Lamps stay on, STOP and visually check Switch.



When you approach a pair of amber signals with only **ONE** of the signal lights **ON**, this will indicate the direction your train will take through the switch. **NOTE:** If **NEITHER** light is on, STOP. The switch has malfunctioned!

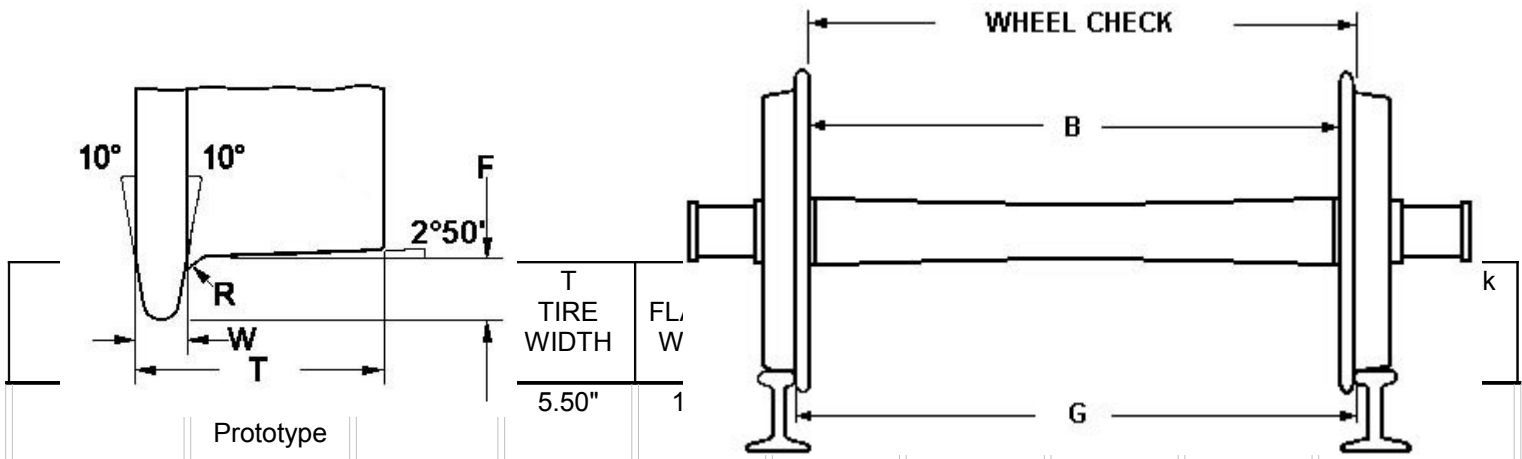


Copy on yellow diamond:  
**Red = Pass at Slow Speed**

You will find yellow

diamond shaped signs around the Cinder Sniffer track. The yellow diamond allows you to pass this red at slow speed **PREPARED** to STOP.

## Wheel and Gauge Standards



|                           | Prototype        |                         | T<br>TIRE<br>WIDTH | FL,<br>W   |            |                 |                       |                       |            |
|---------------------------|------------------|-------------------------|--------------------|------------|------------|-----------------|-----------------------|-----------------------|------------|
|                           |                  |                         | 5.50"              | 1          |            |                 |                       |                       |            |
| $\frac{3}{4}$ " to 1 foot | Scaled Prototype | 3.531"                  | 0.344"             | 0.072"     | 0.070"     | 0.043"          | 3.335"                |                       | 3.408"     |
| $\frac{3}{4}$ " to 1 foot | IBLS Standard    | 3.50" MIN               | 0.406" MIN         | 0.094" MAX | 0.094" MAX | 0.047" +/--.008 | 3.281" +.020<br>-.000 | 3.470" +.000<br>-.020 | 3.375" REF |
| 1" to 1 foot              | Scaled Prototype | 4.708"                  | 0.458"             | 0.096"     | 0.094"     | 0.057"          | 4.448"                |                       | 4.544"     |
| 1" to 1 foot              | IBLS Standard    | 4.75" MIN               | 0.505" MIN         | 0.125" MAX | 0.140" MAX | 0.062" +/--.010 | 4.437" +.020<br>-.000 | 4.690" +.000<br>-.020 | 4.562" REF |
| 1½" to 1 foot             | Scaled Prototype | 7.062"                  | 0.688"             | 0.144"     | 0.141"     | 0.086"          | 6.672"                |                       | 6.816"     |
| 1½" to 1 foot             | IBLS 7¼"         | 7.25" MIN               | 0.750" MIN         | 0.156" MAX | 0.187" MAX | 0.094" +/--.015 | 6.870" +.020<br>-.000 | 7.190" +.000<br>-.020 | 7.031" REF |
| 1½" to 1 foot             | IBLS 7½"         | 7.50" MIN<br>see note 1 | 0.750" MIN         | 0.156" MAX | 0.187" MAX | 0.094" +/--.015 | 7.120" +.020<br>-.000 | 7.440" +.000<br>-.020 | 7.281" REF |

- Note 1: Most tracks are being built to 7.5625" to 7.625 gauge to reduce rail head wear

### COUPLER HEIGHT STANDARDS

Coupler height from center of coupler to the top of the rail.

- 2.19" (in ¾ inch scale)
- Some clubs use 2.25 inch standard
- 2.89" (in 1 inch scale)
- 4.38" (in 1.5 inch scale)

## **BOILER INSPECTION PROCEDURE**

### **PREPARATIONS:**

Remove the smoke box front, ash pan, grates, and whatever else is necessary (within reason) to make the inner firebox, mud ring, tube sheets, etc. visible for inspection. Close the throttle and all valves except the blower valve. Fill the boiler completely with water either by pouring through a top opening or by pumping. When full close the top opening. Hand pump additional water into the boiler until water appears at the blast nozzle. At this time there will be a minimum amount of air left in the boiler. Now close the blower valve. You are now ready for the inspection.

### **INSPECTION:**

Using the engine hand pump, pump in more water until the safety valve lifts without the aid of external force. Note on the boiler pressure gauge the pressure at which the safety valve lifts; this is the working pressure. Either remove the safety valve(s) and replace with plug(s) or using a volunteer or restraining device(s) hold the safety valve(s) for the remainder of the inspection. DO NOT readjust the safety valve for a pressure greater than the test pressure; to do so will invalidate the test. Pump water into the boiler until the engine pressure gauge shows 1 1/2 times the working pressure. Continue pumping as necessary to maintain this test pressure for a period of time not less than five minutes in duration. Anyone other than the inspector can do the pumping. During the five minute period during which the boiler is at test pressure, the inspector will look for leaky tubes, plates, stay bolts, mud rings etc. To pass the test, leakage must not exceed 1 (one) drop per 2 (two) seconds for each of a maximum of 6 (six) weeps. The inspector will look also for distorted plates, etc. Any noticeable distortion during the test will constitute failure.

The inspector will also look at the condition of gauge glasses and fittings. A gauge glass that is inoperable or fitting(s) that leak to a degree that test pressure cannot be maintained will constitute failure.

If no failures or problems come to light during the five-minute test period, the test shall be concluded and proper certification issued by the inspector.

The boiler owner is to receive a copy of the boiler inspection form as completed by the inspector whether the boiler passes or fails. When a boiler is successfully tested, the owner is to receive a wallet size certificate. A brass tag containing the boiler number, test pressure, and expiration date will also be issued to be attached at some appropriate spot to the boiler as evidence of the successful test.

# Minimum Specifications are set forth in this Guide for Locomotive Boiler Construction

by Robert W. Maynard and Sydney H. Watts

DRAWINGS BY R. BRUCE OWENS

*For the benefit of beginners in the field of Live Steam locomotive construction, there needs to be a point of beginning that sets forth basic minimums for the design of a boiler. In a practical sense, scaling down drawings of prototype boilers is impossible; steam and other factors governed by the laws of physics simply don't "scale down." Books have been published in Britain on the subject but nothing, so far, has appeared in American journals on this important subject.*

*About ten years ago, the call went out for a set of basic minimum standards for boiler construction within The Hobby. The valued experience gained by those who had built and operated miniature locomotives over the years was needed to formulate a meaningful guide for those following in this field in years to come. Bob Maynard and Syd Watts agreed to help and a few others submitted information to be considered in its preparation. Un-fortunately, one influential hobbyist merely questioned the authority of anyone to draw up such a document; another demanded that he should be able to "build my boiler out of a Maxwell House coffee can and blow it up if I want. "*

*Work on this paper continued and, about the time it was completed, this writer's health problems resulted in new blood in the publication field and the subject was considered "too controversial." This most important information was left unpublished. During the past three years, the data has been reviewed, and in some cases rewritten, to keep it in the realm of a "guide" rather than a "standard" or "code."*

*It is presented here with the great numbers of newcomers in mind, and for those who have been in The Hobby for years and are requesting information of this sort. It is for the purpose of helping assure that a boiler built by an amateur will be safe and we are sure it will be found useful. - wcf*

*(The late William C. Fitt)*

# **I - FIRE TUBE LOCOMOTIVE TYPE BOILER**

## **1.1 GENERAL**

These specifications comprise Part I of a Recommended Practice for Miniature Steel Boilers.

The fire tube locomotive type of boiler is illustrated in Figure 1 (E). It comprises a cylindrical shell with front and back tube sheets, throat sheet, stayed inner firebox sheets and rear back head sheet.

The following details give the minimum recommended requirements to which such boilers should be built, together with the inspection and test to which the work is subject.

Constructors should verify that the details to which they intend to build comply with the specifications of this Guide before starting actual construction of the boiler.

## **1.2 LIMITATION**

This Guide covers the construction of steel, locomotive-type fire tube boilers having barrels of 4" (four inches) through 12" (twelve inches) inside diameter and working pressure of 100 psig or less.

# **II - MATERIALS OF CONSTRUCTION**

## **2.1 SPECIFICATIONS**

All materials used in boiler construction should conform to the specifications as listed below or equal:

- a. Boiler Plates --Mild Steel ASTM A285 -Grades A, B, C.
- b. Steel Tubes --Mild Steel ASTM A285 -Grades A, B, C.
- c. Copper Tubes --ASTM B-75 type K or L.
- d. Welding Electrodes E6010, E6011, E6012, E7015, E7016, E7017
- e. Stay Bolts --Mild Steel ASTM 285 -Grades A, B, C.
- f. Bolts --Mild Steel ASTM 285 -Grades A, B, C.

## **2.2 BARREL**

The barrel should be made from quality steel tube or pipe approved for pressure vessel construction and should comply with ASTM-A285-57T for hot-finish seamless or welded steel tubes or an acceptable equal.

See chart with Figure 5 for wall thicknesses of barrels.

## **2.3 PLATES**

The flat plates should be steel that complies with ASTM-A285-57T or be 1030 or less steel.



The tube plates are to be a minimum thickness of 3/8" (three-eighths inch).

The minimum ligament allowed between tubes, 1" (one inch) in diameter or less, is 1/4" (one-quarter inch). In boilers under 6" diameter, when using tubes that are silver soldered in, the ligament (the spacing between tubes measured o.d. to o.d.) should be a minimum of 5/32" (five thirty-seconds inch).

The back head plate, in boilers greater than 6" (six inches) diameter, should be a minimum of 3/8" (three-eighths inch) thick. In boilers that are 6" or less diameter, the back head plate should be a minimum of 1/4" (one-quarter inch) thick.

## **2.4 TUBES**

Steel tubes used for flues should be seamless or welded steel that complies with ASTM A53 or equal and should be 18 gauge for tubes up to 3/4" (three-quarters inch) outside diameter; over 3/4" (three-quarters inch) outside diameter should be 16 gauge.

Copper tubes should be hard-drawn copper tube, type K or L tubes are to be rolled in, the ends should be annealed before rolling.

# **III - GENERAL DESIGN**

## **3.1 OPENINGS**

Fittings may be screwed into the boiler barrel or plates, provided the wall thickness will allow a minimum of 4-1/2 threads. If not, mild steel bushings must be used to provide a minimum of 6 (six) formed threads. The bushings may be machined from mild steel.

Bushings should be of the flanged type, being inserted from inside the barrel. They may be welded or silver soldered. The minimum flange thickness should be 3/16" (three-sixteenths inch). See Figure 3.

## **3.2 WASHOUT OPENINGS**

Washout openings are required in the boiler. They should be a minimum of 1/8" (one-eighth inch) NPT for boilers up to and including 6" (six inch) barrel diameter; 1/4" (one-quarter inch) NPT for boilers greater than 6" (six inches) up to and including 9" (nine inches) barrel diameter; 3/8" (three-eighths inch) NPT for boilers over 9" (nine inches) barrel diameter on front or sides and back. Flat-bottom water legs should have 4 (four) washout openings. See Figure 1(A). These openings should be located at the four corners of the firebox. Two openings should be on the sides of the firebox at the lowest corners; the other two in the end of the firebox in the back head. For between-frame fire-boxes, the washout openings may be located on the sides or ends of the firebox, whichever is convenient for operation.

## **3.3 FIREBOX WRAPPER AND END SHEETS**

The firebox wrapper and end sheet should be a minimum of 1/4" (one-quarter inch) in thickness on boilers up to and including 9" (nine inches) in diameter; 3/8" (three-eighths inch) in thickness on boilers from 9" (nine inches) to 12" (twelve inches) in diameter. See Section 2.3 for Tube Plates.

### **3.4 STAY BOLTS**

All flat surfaces, the upper back head and front tube plate excepted, require staying or the use of girder stays on the crown sheet.

Stay bolts should be mild steel. They may be screwed, welded, or both. They should be sized and spaced as called for in Figure 7. Holes should be countersunk for welding.

### **3.5 CROWN SHEET GIRDERS**

Crown sheet girders may be used instead of crown sheet stay bolts. Firebox crown sheet girders should be a minimum of 1/4" (one-quarter inch) in thickness in boilers up to 6" (six inches) in diameter; 3/8" (three-eighths inch) in thickness in boilers of diameter of 6" (six inches); 1/2" (one-half inch) in boilers over 6" (six inches) to 10" (ten inches); 5/8" (five-eighths inches) in boilers 10" (ten inches) to 12" (twelve inches). Crown sheet girder stays should be spaced as in Figure 5. The stays should be provided with 3/8" (three-eighths inch) holes as shown to provide for free circulation. The girder stays should not be welded to any other surface of the boiler, but should stand free as shown in Figure 1 (8). In all cases, the girder stay should extend the full length of the crown sheet.

For recommended heights and spacing of girder stays, see Figure 5.

### **3.6 WELDED JOINTS**

**ALL** welded joints should be subject to preparation as shown in Figure 2 and Figure 3, according to their location and application. **NO FILLET WELDS ARE ALLOWED.** Sealing runs are accepted.

### **3.7 STEAM DOME AND DOME CLOSURES**

Closures may be the pipe coupling, screwed plug type or the bolted cover type. For bolted covers, see Figures 2(8), 2(C), and 4. The joint face should be a minimum of 2 (two) times the diameter of the bolt; i.e., 1/4" bolt = 1/2" face width. Preparation and welding of domes and closures shall be as shown in Figure 2(A), (8), (C) and (0).

### **3.8 MUD RING**

The mud ring should be a minimum of 3/8" (three-eighths inch) thick in boilers up to and including 6" (six inches) barrel diameter. For boilers greater than 6" (six inches) diameter, the mud ring should be a minimum of 1/2" (one-half inch) thick.

### **3.9 FIRE HOLE RING**

The fire hole ring should be at least as thick as the firebox plates. Care must be taken to obtain maximum penetration of the weld when applying the fire hole ring. Furthermore, sealing runs should be applied if at all possible.

### **3.10 FITTINGS**

The boiler shall incorporate provisions for the following:

- a. Two safety valves, each having an area of relief not less than provided for in the nomogram in Figure 6. A means of locking the pressure setting should be provided.
- a. The safety valves should be attached directly to the boiler shell or steam dome. Valve springs should be of non-corrodible material. On boilers 9" (nine inches) or greater in diameter, commercial safety valves should be used: Kunkle or equal.
- b. A boiler pressure gauge of not less than 1" (one inch) diameter should be attached to the boiler by means of a siphon. The scale of the gauge should read at least 2 (two) times the boiler working pressure; i.e., 100 psi working pressure requires a 200 psi gauge scale.
- c. A water gauge with sight glass is to be provided. The sight glass should be not less than 3/8" (three-eighths inch) in diameter for boilers up to and including 6" (six inches) in diameter, and not less than 1/2" (one-half inch) in diameter for boilers greater than 6" (six inches) in diameter. Water gauges should have adequate passages through-out: not less than 1/8" (one-eighth inch), larger being preferred. Preferred water gauges should be of the three-cock design, but all must have a blow down. The lowest visible part of the glass should be a minimum of 1/2" (one-half inch) above the crown sheet for boilers up to and including 7" (seven inches) diameter, 3/4" (three-fourths inch) above the crown sheet for boilers 8" (eight inches) and 9" (nine inches) in diameter, and 1" (one inch) above the crown sheet for boilers greater than 10" (ten inches) diameter.
- d. Blow down valves (a minimum of two preferred) should be located at the lowest possible points of the firebox with the bottom of the opening flush with the top of the mud ring.

## **IV - CONSTRUCTION**

### **4.1 PREPARATION**

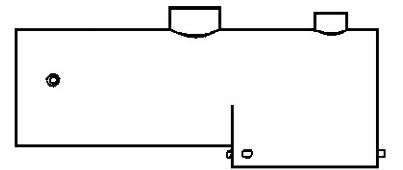
All joints, before welding, should be prepared in accordance with Figure 2 and Figure 3 according to their location and application. Any fault in the welding of any joint should be fully gouged out before any repair takes place.

### **4.2 WELDING**

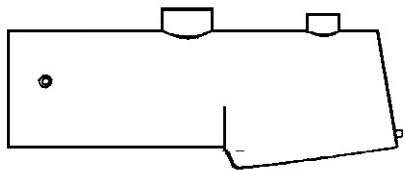
All welding should be free from blow holes and inclusions. The welding should penetrate the thickness of the plate. Sealing runs must be applied to the reverse side of the joint, if possible.

### **4.3 FIRE TUBES AND FLUES**

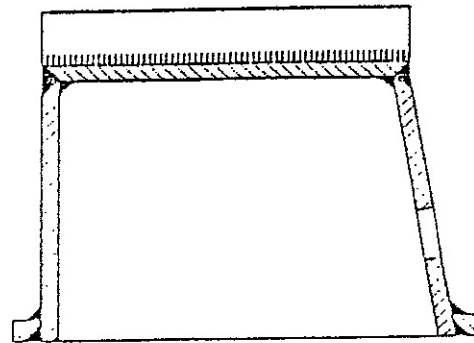
Fire tubes and flues should be welded or rolled into the tube sheets. In the case of rolled tubes and flues, they must be expanded into position, a projection beyond the tube sheet of 1-1/2 (one and one-half) times the wall thickness of the tube. In the use of copper tubes, they may be silver soldered with a silver alloy of not less than 40% (forty percent) silver. High temperature Loctite, 290 or equivalent, may be used to seal tubes and welds.



FIREBOX BETWEEN FRAMES

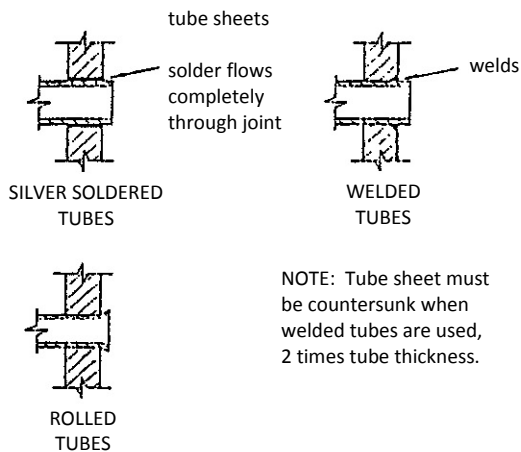


FIREBOX ABOVE FRAMES

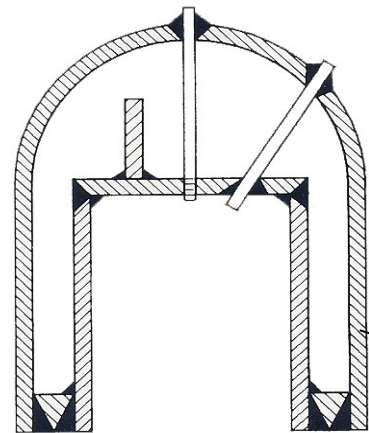


(A) All bushings and dome welded to barrel with inside and outside run where possible. Throat sheet welded both sides.

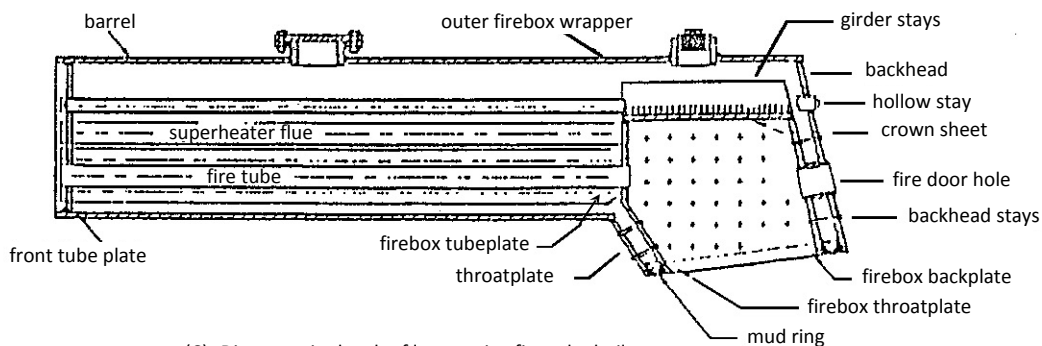
(B) Firebox assembly welded together – mud ring welded to firebox base. Girder welded to crown sheet (if used). Firebox may extend below mud ring.



(D) Tubes may be welded or rolled, beaded and welded or, in the case of copper, silver soldered to the tube sheet. Extend tubes  $1\frac{1}{2}$  times tube thickness.

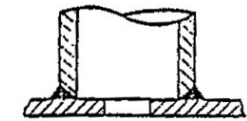


(E) Crown sheet staying using girders or stay bolts. Stay bolt welded and screwed inside firebox outside boiler barrel.

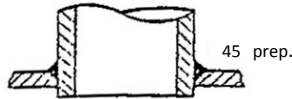


(C) Diagrammatic sketch of locomotive fire tube boiler

FIGURE 1

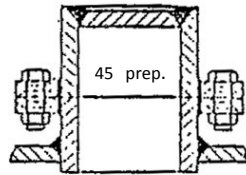


alternate method of attaching dome to barrel

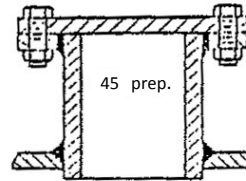


sealing run where possible

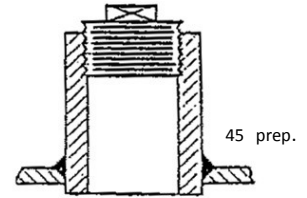
(K) Dome riser to barrel



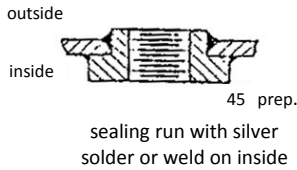
(L) Dome closure type I



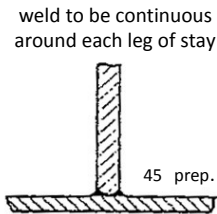
(M) Dome closure type II



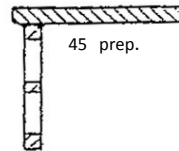
(N) Dome closure type III up to 2" pipe



(J) All attachments to barrel



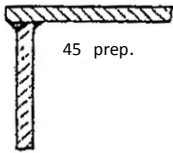
(I) Crown stay to crown



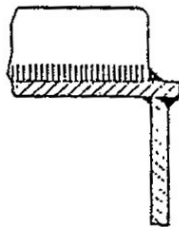
(F) Firebox tube plate to crown



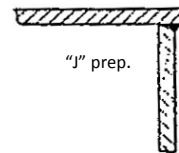
(G) Mud ring to inner and outer firebox plates



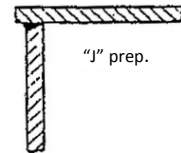
(E) Firebox crown to side plate (firebox)



(C) Firebox to rear firebox plate and sheet



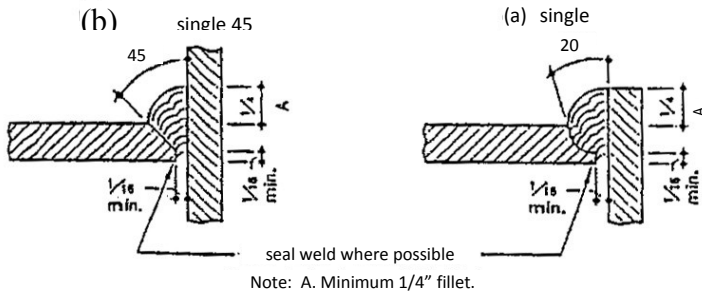
(B) Backhead to barrel



(A) Front tube plate to barrel

**FIGURE 2**

WELD PREPARATIONS FOR VARIOUS LOCATIONS



**FIGURE 3**

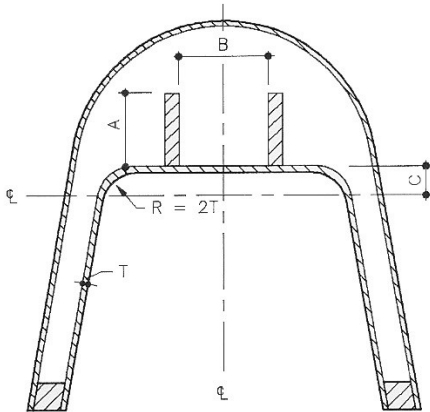
DETAILS OF "J" AND SINGLE 45 DEGREE BEVEL PREPARATION

All bolt threads are U S National fine or SAE

| INSIDE DIAMETER OF BOLT | NUMBER OF BOLTS | DIAMETER OF BOLTS AND NUMBER OF THREADS |
|-------------------------|-----------------|---|
| 2"                      | 6               | 10 - 32                                 |
| 3"                      | 9               | 10 - 32                                 |
| 4"                      | 8               | 1/4 - 28                                |
| 5"                      | 12              | 1/4 - 28                                |
| 6"                      | 12              | 1/4 - 28                                |

All bolt holes should be tapped to a depth of at least 1 1/2 (one and one-half) times the bolt diameter.

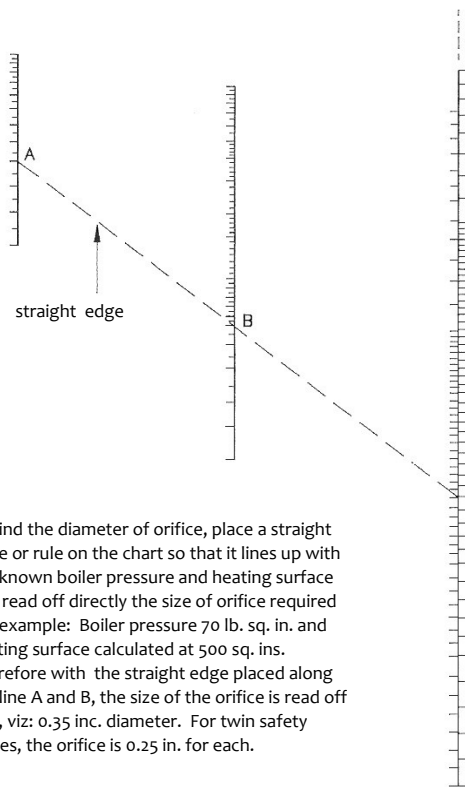
**FIGURE 4**



| BARREL DIAMETER INCHES | WALL THICKNESS INCHES | A-GIRDER HEIGHT INCHES | B-GIRDER SPACING INCHES | C-CROWN ABOVE C/L# INCHES | GIRDER WIDTH INCHES |
|------------------------|-----------------------|------------------------|-------------------------|---------------------------|---------------------|
| 4 & 5                  | .1875<br>.2580*       | 1.00                   | 1.25                    | .625                      | .250                |
| 6                      | .1875<br>.2800*       | 1.50                   | 2.25                    | .750                      | .375                |
| 7                      | .2500<br>.2770*       | 2.00                   | 2.75                    | .875                      | .500                |
| 8                      | .2500<br>.3220*       | 2.5                    | 2.5                     | 1.000                     | .500                |
| 9                      | .2500<br>*            | 2.5                    | 3.125                   | 1.125                     | .500                |
| 10                     | .2500<br>.3650*       | 3.00                   | 4.125                   | 1.250                     | .625                |
| 12                     | .2500<br>.3750        | 3.50                   | 4.50                    | 1.375                     | .625                |

\* Wall thickness schedule 40 steel pipe  
# Minimum

**FIGURE 5**

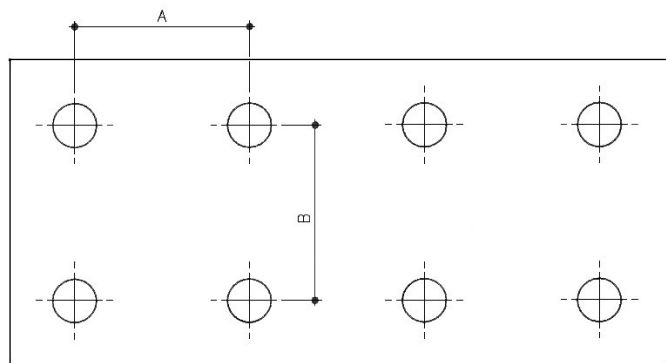


To find the diameter of orifice, place a straight edge or rule on the chart so that it lines up with the known boiler pressure and heating surface and read off directly the size of orifice required. For example: Boiler pressure 70 lb. sq. in. and heating surface calculated at 500 sq. ins. Therefore with the straight edge placed along the line A and B, the size of the orifice is read off at C, viz: 0.35 inc. diameter. For twin safety valves, the orifice is 0.25 in. for each.

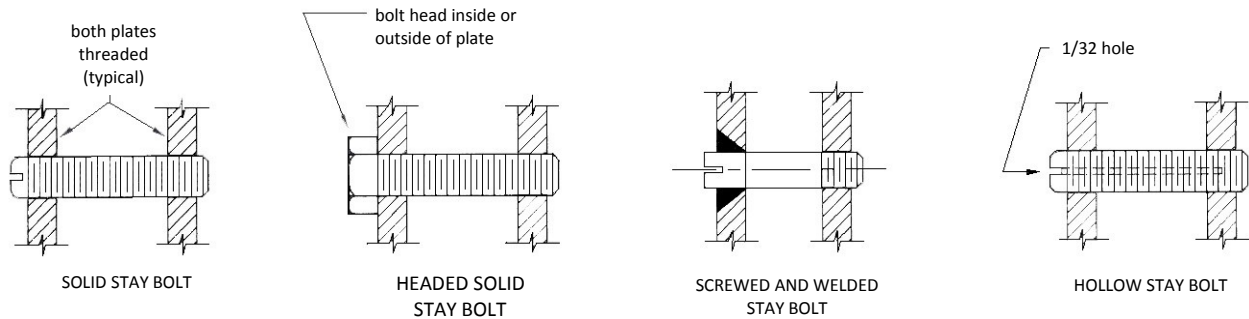
**FIGURE 6**  
SAFETY VALVE ORIFICES

| BOILER DIAMETER INCHES | MINIMUM BOLT DIAMETER INCHES | SPACING A | SPACING B | BOLT THREAD |
|------------------------|------------------------------|-----------|-----------|-------------|
| All sizes to 12"       | 3/8                          | 1 1/2     | 1 1/2     | 24          |

Stays may be caulked with silver solder or peened.  
Use of coarse threads not permitted.  
290 Loctite may also be used as a stay sealant.



**FIGURE 7**  
STAY BOLT CENTERS



**FIGURE 8**  
STAYED FLAT SURFACES

## V - INSPECTION AND TESTING

### 5.1 INSPECTION AND TESTING OF FINISHED BOILER

Upon completion of a boiler, the following steps should be taken:

- a. Hydrostatic test to 3 (three) times working pressure and maintain for 30 (thirty) minutes.
- b. Water gauge to be checked for correct functioning.
- c. A boiler certificate will be issued and signed by a club boiler inspector for a period of 1 (one) year.

Annually thereafter, a hydrostatic test to 1-1/2 (one and one-half) times working pressure is to be made. At each annual test, a check is to be made of all fittings and gauges. The safety valve(s) are also to be checked for proper setting and operation. During the hydrostatic test, make up (by use of the hand pump) is permitted to offset an allowable leakage of 1 (one) drop per 2 (two) seconds for each of a maximum of 6 (six) weeps.

Small leaks may be sealed by peening, high temperature Loctite (290), stop leak compounds, etc.

- d. In the event of any rebuild, all work shall be inspected as for new construction and the boiler retested to 1-1/2 (one and one-half) times its working pressure to the satisfaction of the boiler inspector.

## CINDER SNIFFER'S RUN DAY COMMITTEE

The Run Day Committee will be composed of five club members. The life of each Committee will be one club run.

The Committee will be responsible for the "complete" running of the track during the Run Day.

1. Prior to each run day, the Committee will see that the track is in proper condition to hold a run: buildings clean, restrooms clean, water available for engines, fire wood and coal available, work station schedules are filled by qualified individuals. There should be no unassigned time slots on the work schedules.
2. Two members of the Committee will be responsible for the set-up on the Run Day starting at 8 A.M.: electric on, water on and available where needed, track switches on, greased, and working properly, all buildings open, tables and chairs set-up, club cars cleaned, greased, and on track.
3. One member of the Committee is to act as "Club Officer of the Day". This member is responsible to see that all work stations are properly manned and that all club rules (written and common sense) are observed by members and guests.
4. Two Committee members will be responsible for closing of track: water shut off and drained if necessary, electric shut off, track switch controls off and covered, buildings closed and locked, fires out, chairs and tables put away, club cars put away, garbage picked up and removed.

This will probably not be a fun day for the Committee members. If vacancies or absentees are found at the work stations, the committee members are responsible to see that they are filled or are to work the stations themselves. They are also responsible to take care of other matters related to the run that may occur during the run. Committee members do not necessarily have to do all of the work themselves; additional volunteers are always welcomed. However they are responsible to see that the work is done even if they must do it themselves. Even though a Committee member is done with his particular assignment, he is not necessarily done for the day.

Work stations are to be manned from 10 AM to 6 PM unless these hours are extended or shortened by the officer of the day. Work stations are to be manned by volunteers on a one-hour increment basis. If not enough volunteers are found, the Run Day Committee can assign work stations to members present. Only club members are to man work stations.

The Work Stations are;

- 1 - Station Master
- 2 - Station Switch Tender
- 3 - Fairfax Yard Switch
- 4 - Ticket Agent
- 5 - Parking Lot & Sign-in (Starts at 8AM)

Additional work stations can be included as necessitated by track expansion or as dictated by the Run Day Committee.



**CINDER SNIFFERS  
RUN DAY WORK SCHEDULE**

**COMMITTEE MEMBERS:**

DATE: \_\_\_\_\_

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| TIME          | STATION MASTER | STATION SWITCH TENDER | FAIRFAX YARD SWITCH | TICKET AGENT | PARKING LOT & SIGN IN |
|---------------|----------------|-----------------------|---------------------|--------------|-----------------------|
| 10 AM - 11 AM |                |                       |                     |              |                       |
| 11 AM - 12 PM |                |                       |                     |              |                       |
| 12 PM - 1 PM  |                |                       |                     |              |                       |
| 1 PM - 2 PM   |                |                       |                     |              |                       |
| 2 PM - 3 PM   |                |                       |                     |              |                       |
| 3 PM - 4 PM   |                |                       |                     |              |                       |
| 4 PM - 5 PM   |                |                       |                     |              |                       |
| 5 PM - 6 PM   |                |                       |                     |              |                       |

# CINDER SNIFFERS RUN DAY SET-UP

## Committee Members

Date \_\_\_\_\_

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### PRIOR TO RUN DAY

- Buildings Clean
- Restrooms Clean
- Cistern contains enough water for run
- Coal available
- Winter: Fire wood, kindling, fuel oil available

Done by                      Completed

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### RUN DAY

- Run up Flag
- All buildings open
- Track switches on, greased, and working properly
- Water on and available where needed
- Tables, chairs and picnic tables set up and clean
- Flea market and display tables set up
  - Set out diner supplies
  - Rug set out in cooking area
- Extension cord installed over rafters
- Knox Shop sink and counter top cleaned
- Women's restroom sink cleaned
- Paper towels and toilet tissue set out
- Trash cans set out and liners installed
- Diner sides down
- Restroom signs put up
- Club riding cars cleaned, greased, and on track

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### WINTER

- 'Wash and Dries' set out, both restrooms and Knox Shop
- Fire in diner, Knox Shop, and salamander
- Cover over sides of diner

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# CINDER SNIFFERS RUN DAY CLOSE-UP

## Committee Members

Date \_\_\_\_\_

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|   | <u>Done by</u> | <u>Completed</u> |
|---|----------------|------------------|
| Water shut off and drained if necessary               | _____          | _____            |
| Track switch controls off and covered                 | _____          | _____            |
| Club cars put away                                    | _____          | _____            |
| Fires out and salamander put away                     | _____          | _____            |
| All chairs and tables put away                        | _____          | _____            |
| Garbage picked up and removed from grounds            | _____          | _____            |
| Flag put away   | _____          | _____            |
| Restroom signs put away                               | _____          | _____            |
| Paper towels and toilet paper put in mouse-proof cans | _____          | _____            |
| Diner sides up and/or cover removed                   | _____          | _____            |
| Diner menu board and supplies put away                | _____          | _____            |
| Electric shut off and breakers off                    | _____          | _____            |
| Buildings and gate closed and locked                  | _____          | _____            |