

SMALL ENGINES

Superintendent:

State Fair Entries: *One poster or display board from each Level 1 - 3*

EXHIBIT

NOTE: Engines must be drained and free of gasoline and motor oil before being placed on exhibition.

Poster Requirements: Size 22" x 28", Mounted on stiff backing foamboard, thin plywood, peg board or very stiff card board, and displayed horizontally. Must be covered in plastic. Attach exhibit card.

Actual Engine Display: The actual small engine may be displayed. It must be mounted on a stable base no larger than 30" x 30". For safety reasons, all fluids (fuel and oil) must be removed. Note: It is strongly suggested a notebook with details and pictures of what was done to the engine accompany the display.

Display Board Requirements: No more than 36" x 36" and free standing, 3-dimensional display, all items to be securely fastened and 4-H member's exhibit card to be secured in lower right hand corner.

All posters, notebooks, and display boards must include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member's exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, be the last page of a notebook, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the manner in which references are listed.

Level 1: Grades 3-5

Educational display (poster or display board): Any educational display related to what you have learned in this project.

Some possibilities of exhibits might include:

- Picture poster showing what you have learned about small engines.
- Display of basic tools needed to maintain a small engine.
- An educational display related to what you have learned about two-cycle engines.
- An educational display related to what you have learned about four-stroke engines.
- An educational display showing proper maintenance and care of a lawn mower.
- An educational display of proper safety labels and procedures for small engines.
- Small engines parts display board with a brief explanation of the purpose of the parts and how they work.
- Display related to some system that you learned about in small engines (filters, cooling, ignition, etc.).

4-H Project Interactive Demonstration on any aspect of small engines covered in this manual.

Level 2: Grades 6-8

Educational display: Any educational display related to what you have learned in this project. Some possibilities of exhibits might include:

- An educational display comparing the different types of engines.
- An educational poster illustrating and explaining the internal parts of an engine.
- An educational display showing how transmissions work.
- An educational display showing how to conduct a compression check.
- An educational display showing how to adjust a carburetor according to owner's manual instructions and in accordance with EPA regulations.
- A display using a real small engine with a brief explanation showing steps in preparing a small engine for storage.
- Carburetor parts display board with a brief explanation of the purpose of the parts and how they work together.
- An income and expense record of your lawn mowing business, including costs, hours worked, pay for individual jobs, etc.

4-H Project Interactive Demonstration on any aspect of small engines covered in this manual.

Level 3: Grades 9-12

Educational display: Any educational display related to what you have learned in this project. Some possibilities of

exhibits might include:

- An educational display showing how to use diagnostic tools on small engines.
- An educational display showing how to tear down and reassemble a small engine.
- An educational display related to the electrical system of a small engine.
- An educational display about emissions systems on small engines and future trends.
- An educational display showing mower blade inspection and maintenance skills.
- An educational display about careers in small engines.
- An educational display about your work in finding resources about small engines on the Internet.
- An educational display about trouble-shooting common problems with small engines.
- An educational display about small engines designs.
- Any educational display related to what you have learned in this project.

4-H Project Interactive Demonstration on any aspect of small engines covered in this manual.