

National Model Railroad Association

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Achievement Program

Motive Power

First, let's define what is meant by "Motive Power": it is any type of steam, diesel, or electric locomotive, traction unit, maintenance vehicle, or other type of self propelled vehicle that runs on rails. This includes everything from speeders to streetcars to Big Boys. It does not include things that are powered models of unpowered vehicles (like hand cars) or unpowered models of powered prototypes (like dummy locomotives).

Contact your [Regional AP Manager](#) if you have a question about which category a particular model would fall into.

To qualify for the Master Builder - Motive Power certificate:

1. Build three scale models of railroad motive power, one of which must be scratchbuilt. Motive Power is defined as a locomotive or a self-propelled vehicle.

- A. To qualify as scratchbuilt, the motive power must contain the following scratchbuilt items as applicable:

- Steam Locomotives: frame, boiler, cab, tender, frame, body, either valve gear or main and side driving rods.
- Other Motive Power: body, frame, cab, power truck side frame, pantograph or trolley poles where appropriate.
- All models must be capable of self-propulsion on track of the same gauge as the model. Power trains for all models may be commercial motors and gears.
- All models must be super detailed either with scratchbuilt parts or with commercial parts as defined in the Definitions Section.

Remember the phrase: "...real individual craftsmanship is demonstrated." It will show up again, both in the letter and the spirit of the AP requirements. For example, let's say you come across a magazine article on super-detailing a Santa Fe GP-30, but you model the D&RGW. With a little research, you may find that there were some subtle differences between the two roads' versions of this locomotive (different types of radio antennas or headlights, addition of snowplows, etc.). Changing the types of detail added to match a specific prototype is something that demonstrates 'individual craftsmanship'. Make sure and remember to describe the changes that you made and the reasons behind them in your documentation.

- B. The following parts are specifically excluded from the scratch built requirement (*although you may scratch build them to earn additional points*):

- Motor
- Gears

- Drivers and wheels
- Couplers
- Light bulbs & electronics
- Trucks
- Paint, decals, etc.
- Bell
- Marker and classification lights
- Brake fittings
- Basic shapes of wood, plastic, metal, etc.

("Basic shapes are things that builders of the prototype would have used as raw materials. For example an "I" beam would be a basic shape; a commercial door or window casting would not.)

- C. The term "scratch built" implies that the modeler has done all of the necessary layout and fabrication that produces the final dimensions, appearance, and operating qualities of the model.

This is a good statement of the intent and spirit of the 'scratch built' requirement. Notice that it does not say that the use of a few commercial detail parts will disqualify the model as being "scratch built". In general, the same standard applies that is used in contest judging: *"Completely Scratch built" means that 90% or more of the model was scratch built.* (But you do need to scratch build the listed in requirement 1-A above.) *Taking an existing model and modifying it to be a powered model is not considered "scratch building."* Examples of this would be taking a passenger car and converting it into a trolley, or a box car and converting it into a box-cab locomotive. These do not meet the definition or the spirit of the term "scratch built" given above.

2. Earn a Merit Award of at least 87.5 points with each of the three scale models of motive power either via an NMRA sponsored contest or AP Merit Award Judging.
3. You must submit a Statement of Qualification which includes the following:
 - An attachment giving a detailed description of each model, including:
 - Identification of all scratch built features
 - All commercial components used
 - Materials used in building the model
 - Copies of the plans you used are NOT required, but many people do submit them.
 - Verification of the Merit Awards (photocopies of the certificates)
 - Photos of the model are helpful, but not required.

Further Information

Contact National Achievement Program General Manager, Paul Richardson, MMR achiev@hq.nmra.org, or your Region or Division Achievement Program Manager for more information.

Also refer to the article "Master Builder - Motive Power," NMRA Bulletin, December 1992.

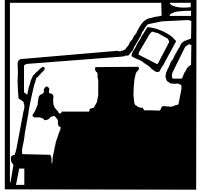
Forms available for this category:

- SOQ Form: (PDF)

- [Record and Validation form: \(PDF\)](#)
- [Judging Form: \(PDF\)](#)

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ACHIEVEMENT PROGRAM MASTER BUILDER MOTIVE POWER STATEMENT OF QUALIFICATIONS FORM May 2006

page 1 of 2

Member's Name: _____ NMRA #: _____ Exp: _____

Street: _____ City: _____ State/Prov: _____

ZIP/PC: _____ Country: _____ NMRA Region: _____

Date Submitted: _____ E-Mail: _____ Phone: _____

To qualify for this certificate you must:

1. Build three scale models of railroad motive power, one of which must be scratchbuilt. Motive Power is defined as a locomotive or a self-propelled vehicle. To qualify as scratchbuilt, the motive power must contain the following scratchbuilt items as applicable:

Steam Locomotives: frame, boiler, cab, tender frame, body, either valve gear or main and side driving rods.

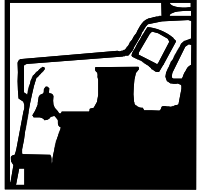
Other Motive Power: body, frame, cab, power truck frame, pantograph or trolley poles where appropriate.

All models must be capable of self propulsion on track of the same gauge as the model. Power trains for all models may be commercial motors and gears. All models must be superdetailed either with scratchbuilt parts or with commercial parts as defined in the AP Regulations "DEFINITIONS" Section.

2. Earn a Merit Award with each of the three scale models of motive power either via an NMRA sponsored model contest or AP Merit Award Judging.

3. Submit a completed Statement of Qualifications (SOQ) which shall include the following:

- Attachment giving detailed descriptions of the models.
- Identification of the scratchbuilt features.
- List of all the commercial components appearing on each model.
- The materials used in building the models.
- Verification of the Merit Awards.



**ACHIEVEMENT PROGRAM
 MASTER BUILDER MOTIVE POWER
 STATEMENT OF QUALIFICATIONS FORM
 May 2006**

	Description of Model	Scratch Built	Merit Award	Verified By	Date	NMRA #
1						
2						
3						

Member's Statement and Agreement:

I certify that I have completed all of the requirements for this Certificate of Achievement as listed above and that I will agree to assist other members in this subject whenever possible, whether or not they are participants in the Achievement Program.

NAME: _____ SIGNATURE: _____ Date: _____

Certification of Regional Achievement Program Chair

As the NMRA Regional Achievement Program Chair of the _____, I certify that I have examined this SOQ and, having compared it to the stated requirements for this certificate, I am satisfied that the stated requirements have been met.

NAME: _____ SIGNATURE: _____ Date: _____

Region Cert #: _____

Approval by AP National Executive Vice Chair

NAME: _____ SIGNATURE: _____ Date: _____



ACHIEVEMENT PROGRAM MASTER BUILDER MOTIVE POWER RECORD AND VALIDATION FORM May 2006

PLEASE ATTACH THIS FORM TO A COMPLETED STATEMENT OF QUALIFICATIONS (SOQ) FORM.

Member's Name: _____

NMRA #: _____

Date Submitted: _____

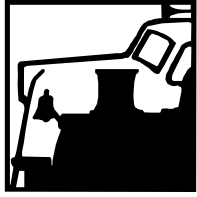
Region: _____

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 - List of all the commercial components appearing on each model.
 - The materials used in building the models.
 - Verification of the Merit Awards.

DESCRIPTION	SCRATCH BUILT	MERIT AWARD	VERIFIED BY	DATE	NMRA #

REGIONAL AP CHAIR: _____ REGION: _____ DATE: _____



ACHIEVEMENT PROGRAM MASTER BUILDER MOTIVE POWER JUDGING FORM May 2006

PLEASE ATTACH THIS FORM TO A COMPLETED STATEMENT OF QUALIFICATIONS (SOQ) FORM.

Member's Name: _____ NMRA #: _____

Date Submitted: _____ Region: _____

Model: _____

The undersigned judges certify that the model of motive power described above, built by the above named NMRA member, has been personally examined by two or more judges appointed by the Region AP Chair; that the model is either scratchbuilt or is superdetailed (as defined in the NMRA AP Regulations "DEFINITIONS" Section); is operational and meets all applicable NMRA Standards; has earned a minimum score of 87.5 points; and has been awarded a Merit Award.

MERIT AWARD SCORING SCHEDULE

CATEGORY	DESCRIPTION	POINTS	SCORE
CONSTRUCTION	Workmanship	0-40	
DETAIL	Quality & Amount	0-20	
CONFORMITY	Prototype Practice	0-25	
FINISH & LETTERING	General Appearance	0-25	
SCRATCHBUILT	Amount of Parts Built by the Modeler	0-15	
		Total	

NOTE

Exempted Parts: motor, gears, wheels, couplers, light bulbs, trucks, marker & classification lights, and brake fittings, basic wood, metal and plastic shapes. The above commercial parts may be used on a model and the model is still considered to be scratchbuilt.

JUDGE'S NAME	SIGNATURE	NMRA #

REGIONAL AP CHAIR: _____ REGION: _____ DATE: _____