



Scoutmaster Bucky

FARM MECHANICS

Merit Badge Workbook

REQUIREMENT 1B:

DRAW A PLAN SHOWING A WELL-EQUIPPED FARM SHOP. POINT OUT THE SHOP'S MANDATORY SAFETY DEVICES AND FEATURES.

Notes:



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REQUIREMENT 1C: FIND ALL THE UNIVERSAL WARNING AND SAFETY SYMBOLS ON A PIECE OF EQUIPMENT AND EXPLAIN WHAT THEY MEAN.

Notes:

REQUIREMENT 1D: DESCRIBE WHAT A MATERIAL SAFETY DATA SHEET (MSDS) IS AND TELL WHY IT IS USED.

Notes:

REQUIREMENT 1D: OBTAIN THE MSDS FOR ANY ENGINE COOLANT, OIL, GREASE, FUEL, HYDRAULIC OR TRANSMISSION FLUID, OR OTHER FLAMMABLE OR HAZARDOUS MATERIALS YOU USE IN MEETING THE REQUIREMENTS FOR THIS MERIT BADGE.



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REQUIREMENT 2A: EXPLAIN HOW POWER IS PRODUCED OR TRANSFERRED IN A DIESEL ENGINE.

Notes:

REQUIREMENT 2B: EXPLAIN HOW POWER IS PRODUCED OR TRANSFERRED IN A HYDRAULIC SYSTEM.

Notes:

REQUIREMENT 2C: EXPLAIN HOW POWER IS PRODUCED OR TRANSFERRED IN A TRANSMISSION OR ANY OTHER POWER SYSTEM.

Notes:



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DO TWO OF THE FOLLOWING (3A, 3B, 3C, OR 3D) IN REQUIREMENT 3

REQUIREMENT 3A: REPLACE THE HANDLE ON ANY TOOL FOUND ON THE FARM.

Notes:

REQUIREMENT 3B: ORGANIZE A TOOL RACK OR A STORAGE SYSTEM FOR NAILS, BOLTS, NUTS, AND WASHERS.

Notes:

REQUIREMENT 3C: USING A HAND FILE, PROPERLY DRESS THE MUSHROOM HEAD OF A CHISEL OR PUNCH.

Notes:

REQUIREMENT 3A: USING A HAND FILE, CORRECTLY DRESS A SCREWDRIVER TIP.

Notes:



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DO ONE OF THE FOLLOWING (4A, 4B, OR 4C) IN REQUIREMENT 4

REQUIREMENT 4A: ON AN ENGINE-POWERED MACHINE: GREASE ALL FITTINGS, CHANGE THE OIL AND OIL FILTER, CLEAN THE AIR FILTER, CLEAN THE RADIATOR FINS, AND REPLACE THE FUEL FILTERS.

Notes:

REQUIREMENT 4B: FOR ANY ENGINE-POWERED MACHINE, CREATE A PREOPERATIONAL CHECKLIST; INCLUDE CHECKING THE ENGINE COOLANT, ENGINE OIL, HYDRAULIC AND/OR TRANSMISSION FLUID, AND BATTERY VOLTAGE (USING A VOLTMETER). USING YOUR CHECKLIST, CONDUCT A PREOPERATIONAL CHECK OF THAT MACHINERY OR EQUIPMENT.

Notes:

REQUIREMENT 4C: PREPARE ANY FARM MACHINE FOR WINTER STORAGE.

Notes:



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REQUIREMENT 5: VISIT AN IMPLEMENT DEALER. INTERVIEW THE DEALER TECHNICIAN OR SERVICE MANAGER FOR HINTS ON GOOD PREVENTIVE MAINTENANCE. ASK WHY IT IS IMPORTANT, THE COSTS, AND WHAT CAUSES WEAR OR DAMAGE. REPORT WHAT YOU LEARN.

Implement Dealer (include name of dealership and address):

Notes:

Implement Dealer Representative's Name

Phone

Implement Dealer Representative's Signature

Date

Visited



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EXPLAIN EACH STEP IN ONE OF THE FOLLOWING (6A, 6B, OR 6C) MAINTENANCE PROCEDURES FOR REQUIREMENT 6

REQUIREMENT 6A: TIGHTENING HYDRAULIC FITTINGS

Notes:

REQUIREMENT 6B: CHECKING THE AIR FILTER

Notes:

REQUIREMENT 6C: CLEANING A WORK PIECE WITH A WIRE-BRUSH WHEEL

Notes:



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REQUIREMENT 7:

FIND OUT ABOUT THREE CAREER OPPORTUNITIES IN FARM MECHANICS. PICK ONE AND FIND OUT ABOUT THE EDUCATION, TRAINING, AND EXPERIENCE REQUIRED FOR THIS PROFESSION. DISCUSS THIS WITH YOUR COUNSELOR, AND EXPLAIN WHY THIS PROFESSION MIGHT INTEREST YOU.

Career Opportunity #1:

Career Opportunity #2:

Career Opportunity #3:

Selected Career Opportunity:

Education:

Training:

Experience:

Notes: