

## **Attention Competitors**

**At the 2005 Provincial Skills Competition  
Safety is # 1**

**Each Event Area Will Have Safety Equipment  
and Requirements That Competitors Must  
Adhere To**

**Important Must Read!!!!**

**Competitors Must Meet All Safety Requirements  
To Compete At The Provincial Skills Competition**

**Please Consult The Scope Document To  
Determine The Safety Requirements For Your  
Area**

**It Is Recommended That Competitors Check The  
Scope Document To Ensure You Meet All Safety  
Requirements**

**Scope Documents May Be Updated Until January  
15th**

# 2005 Provincial Skills Competition

## Scope Document

<b>EVENT:</b> AUTO BODY REPAIR	<b>LEVEL:</b> POST SECONDARY
<b>START TIME:</b> 8:00 AM APRIL 8 <sup>TH</sup> , 2005	<b>LOCATION:</b> SIAST, WASCANA CAMPUS RM. A153
<b>INTERNATIONAL TRADE #:</b> 13	<b>DURATION:</b> 7.5 HRS.

**SAFETY REQUIREMENTS:** Competitors are required to follow all industry safety standards during the competition.

### **PURPOSE OF THE CHALLENGE:**

To test the competitors skill in mig welding 20 gauge mild steel.  
 To rough out a hinge buckle on a combination crowned panel and fill low spots with body filler.  
 To perform masking skills  
 Apply basecoat/clear coat onto a prepared panel using an HVLP spray gun following paint manufactures recommendations.

**PRE-REQUISITES:** Mig weld 20 guage mild steel  
 Minor bodywork skills  
 Basecoat/clearcoat painting skills

### **SKILLS AND KNOWLEDGE TO BE TESTED:**

The contest is divided into three sections:

**Welding:** To be able to adjust a mig welder to perform three basic types of welds:

1. Vertical lap weld 5” in length while welding in the upward position
2. Vertical butt weld with backing 5” in length while welding in the downward position
3. Vertical plug weld with a 3/16” (5mm) hole

**Metal Working:** To be able to perform a rough out on hinge buckle using dollies and body hammers, grind area to be body filled; mix and apply body filler onto metal damaged area and sand the body filler using file and 40 grit up to 80 grit sand paper on the long board hand sander.

**Painting:** To be able to mask, reduce and apply basecoat/clearcoat onto a prepared panel using a high volume low pressure spray gun, following paint manufactures recommendations. Clean up spray gun equipment after each paint application.

### **THEORY EXAM: MULTIPLE CHOICE EXAM**

### **DRESS CODE:**

Competitors must supply all individual safety equipment required to perform work in industry conditions (welding gloves, welding helmets, coveralls, safety glasses, fresh air mask when applying paint products, paint safe gloves when working with paint products, carbon filters/dust mask.

**EQUIPMENT, TOOLS, SUPPLIES, CLOTHING:**

***Supplied by Committee:***

110-volt power supply, compressed air, MIG welder unit, control equipment, random orbital sander, pistol grip grinder, die grinder, heat gun, spray guns, Fresh-air mask, paint safe gloves

***Competitor Must Provide***

**CLOTHING REQUIREMENTS:**

Welding gloves, Welding helmet, coveralls, safety glasses, , Carbon respirator

**JUDGING CRITERIA:**

Point Breakdown

**ADDITIONAL NOTES: \* ORIENTATION WILL TAKE PLACE  
APRIL 8<sup>TH</sup>, 2005 7:30AM AT SIAST WASCANA CAMPUS ROOM  
A153.**

**COMMITTEE MEMBERS:**

Kelly Mortenson,                      SIAST, Wascana Campus, Regina  
Gord Heidel,                              Cochrane High School, Regina

# SKILLS CANADA SASKATCHEWAN 2005

## AUTO BODY REPAIR

### M.I.G. Welding Skills

The Welding Competition will require three separate welds. All welds in the vertical position. The welds will be judged on standards set by the technical committee. All welds will be done using 2" X 6" (51 mm X 152 mm) 20 gauge mild steel coupons. The test is divided into two parts. The first part is called the practice part. You will be given 30 welding coupons, and given 40 minutes to turn on and tune the welders for practicing all 3 welds. The second part is the actual test. You will be given 14 coupons and 20 minutes to complete 2 of each weld. You will then turn in your welds, marking your first and second choice for each weld putting your name on the coupons.

Each welding booth will be equipped with a vertical welding bracket and clamps (as No tacks are used).

The three welds are explained below.

#### 1. Fillet Weld (lap weld)

- \*this weld will be a continuous weld in the center of the coupons
- \*this weld will be a minimum of 5" (152 mm) in bead length
- \*this weld will be a maximum 1/4" (6mm) in bead width
- \*this weld will be a maximum 1/8" (3 mm) in bead height
- \*this weld will be a maximum 1/16" (1.5 mm) in penetration height

#### 2. The Butt Weld with Backing:

- \*this weld will be a continuous weld in the center of the coupons
- \*this weld will have a gap of 2 – 4 mm width (to insure penetration into the backing piece)
- \*this weld will be minimum of 5" (152 mm)
- \*this weld will be a maximum 1/4" (6 mm) in bead width
- \*this weld will be maximum 1/8" (3 mm) in bead height
- \*this weld will be a maximum 1/8" (3 mm) in penetration width
- \*this weld will be a maximum 1/6" (1.5 mm) in penetration height

#### 3. Plug Weld:

- \*this weld will be a 3/16" (5 mm) plug weld in the upper corner of coupons
- \*this weld will be a maximum 3/8" (10 mm) in diameter (top coupon)
- \*this weld will be a maximum 1/8" (3 mm) in height
- \*this weld will fill the plughole completely
- \*this weld will be a maximum 3/16" (5 mm) in penetration diameter
- \*this weld will be a maximum 1/16" (1.5 mm) in penetration height

Participants will be given templates to check their practice welds with.

The contestant will shut down equipment and clean within the hour.

# **SKILLS CANADA SASKATCHEWAN 2005**

## **AUTO BODY REPAIR**

### **Sheet Metal Repair**

The Competitor will have (105) minutes to repair a damaged panel. This will include the roughing out of the hinge buckle and filling low areas with a body filler. The damaged panel will be roughed out and finished for priming.

The competitor will be judged on:

- \* Safety
- \* Metal preparation skills
- \* Metal working skills
- \* Body filler application and finishing skills
- \* Final appearance
- \* Clean up of all tools, equipment and area required for repair.

The contestant will clean up all tools, equipment and area within two hours.

# SKILLS CANADA SASKATCHEWAN 2005

## AUTO BODY REPAIR

### Painting Skills

The competitor will have (105) minutes to apply basecoat and clearcoat onto a primed panel, using a high volume low pressure spray gun.

The competitor will be judged on:

- \* Safety
- \* Masking skills
- \* Reduction of base coat and clear coat as per manufacturers recommendations
- \* Preparation and cleaning of panel for refinish material application
- \* Adjustment of spray gun
- \* Application of refinished material as per manufacturers recommendations
- \* Clean and lubricate spray gun
- \* Appearance of panel after refinishing. (based on industry standards)

The contestant will clean up all tools, equipment and area within the 2.0 hours.