

# Apprenticeship and Industry Training Act

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## Outdoor Power Equipment Technician

Alberta Regulation 47/2001

Consolidated to September 1, 2011

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**Government  
of Alberta** ■



(Consolidated up to September 1, 2011)

**ALBERTA REGULATION 47/2001**

As amended by 283/2003, 394/2003, 270/2006 and 94/2011

**Apprenticeship and Industry Training Act**

**OUTDOOR POWER EQUIPMENT TECHNICIAN  
TRADE REGULATION**

*Table of Contents*

1 Definitions

**Part 1**

**General Matters Respecting the Trade**

2 Constitution of the trade

3 Tasks, activities and functions

4 Supervision of apprentices, etc.

**Part 3**

**Power Equipment Branch of the Trade**

9 Definition

10 Undertakings constituting the branch

11 Tasks, activities and functions

12 Term of the apprenticeship program

**Part 4**

**Recreational Equipment Branch of the Trade**

13 Definitions

14 Undertakings constituting the branch

15 Tasks, activities and functions

16 Term of the apprenticeship program

**Part 6**

**Expiry and Coming into Force**

21 Expiry

22 Coming into force

**Definitions**

1 In this Regulation,

- (a) “apprentice” means a person who is an apprentice in the trade;
- (b) “certified journeyman” means a certified journeyman as defined in the *Apprenticeship Program Regulation* (AR 258/2000);
- (c) “marine equipment” means marine equipment as defined in Part 2;
- (d) “power equipment” means power equipment as defined in Part 3;
- (e) “recreational equipment” means recreational equipment as defined in Part 4;
- (f) “technical training” means technical training as defined in the *Apprenticeship Program Regulation* (AR 258/2000);
- (g) “trade” means the trade of outdoor power equipment technician that is designated as an optional certification trade pursuant to the *Apprenticeship and Industry Training Act*;
- (h) “turf equipment” means turf equipment as defined in Part 5;
- (i) “uncertified journeyman” means an uncertified journeyman as defined in the *Apprenticeship Program Regulation* (AR 258/2000).

AR 47/2001 s1;270/2006

## **Part 1 General Matters Respecting the Trade**

### **Constitution of the trade**

**2(1)** The undertakings set out in sections 10 and 14 constitute the trade.

**(2)** The trade is made up of the following:

- (a) the power equipment branch of the trade;
- (b) the recreational equipment branch of the trade.

AR 47/2001 s2;94/2011

**Tasks, activities and functions**

**3** When practising or otherwise carrying out work in the trade, the tasks, activities and functions set out in sections 11 and 15 come within the trade.

AR 47/2001 s3;94/2011

**Supervision of apprentices, etc.**

**4(1)** Where, in respect of a branch in the trade, a person is a certified journeyman or an uncertified journeyman and is to provide supervision to an apprentice, that journeyman is eligible to supervise that apprentice only

- (a) in respect of the undertakings that constitute that branch, and
- (b) in respect of tasks, activities and functions that come within that branch,

for which that person is a certified journeyman or an uncertified journeyman.

**(2)** Where a person is an apprentice in an apprenticeship program in a branch in the trade and is employed in respect of another branch in the trade, that apprentice is eligible to carry out work only

- (a) in respect of the undertakings that constitute that branch, and
- (b) in respect of tasks, activities and functions that come within that branch,

for which that person is an apprentice.

AR 47/2001 s4;270/2006

**Part 2** Repealed AR 94/2011 s4.

**Part 3  
Power Equipment Branch  
of the Trade**

**Definition**

**9** In this Part, “power equipment” means equipment, other than equipment that is defined in section 13, that in the trade is commonly known as outdoor power equipment or turf equipment and includes

- (a) aerators;

- (b) air compressors;
- (c) chippers and shredders;
- (d) compaction equipment;
- (e) generators;
- (f) lawn and garden tractors;
- (g) lift equipment;
- (h) pressure washers;
- (i) pumps;
- (j) mowers;
- (k) chain saws;
- (l) seeders;
- (m) sprayers;
- (n) tillers;
- (o) trimmers;
- (p) snow removal equipment.
- (q) golf carts;
- (r) utility vehicles specifically designed for use on or with respect to turf.

AR 47/2001 s9;94/2011

#### **Undertakings constituting the branch**

**10** The undertakings that constitute the power equipment branch of the trade are the diagnosis and repair of power equipment.

AR 47/2001 s10;94/2011

#### **Tasks, activities and functions**

**11** When practising or otherwise carrying out work in the power equipment branch of the trade, the following tasks, activities and functions come within that branch of the trade:

- (a) selecting, inspecting, using and maintaining various hand and power tools, shop equipment, measuring tools and testing equipment;

- (b) retrieving and inputting applicable information using various media including service related computer software programs;
- (c) selecting, installing or removing fasteners, tubing, piping, couplings, fittings, hoses, electrical wiring and connectors;
- (d) selecting, installing, inspecting, adjusting and removing bearings, bushings, seals, belts, sheaves, pulleys, chains and sprockets;
- (e) selecting proper fuels, lubricants, coolants, sealants, adhesives, plastics and plastic metals for intended application;
- (f) inspecting, monitoring performance of and operating machinery and equipment;
- (g) assembling, testing, igniting and adjusting oxy-acetylene cutting and heating equipment and performing minor cutting and heating repairs;
- (h) repairing, maintaining and inspecting the following:
  - (i) cutting systems and components;
  - (ii) trailer couplers and hitches on unlicensed, off-road trailers, with respect to
    - (A) coupling units;
    - (B) fasteners, plungers, sliding fifth wheel plungers and control mechanisms and sliding racks;
    - (C) air release cylinder lines, hoses and fittings;
    - (D) fifth wheel saddles, bushings and pins, fifth wheel mounting components and fifth wheel compensators and components;
    - (E) king pins and upper coupler assemblies and turntables;
    - (F) rubber bushed hitch eyes, safety chains, cables and attachments, draw bars and attachments, pintle hooks and ball hitches;
  - (iii) body units, with respect to structural integrity, including

- (A) aluminum, steel and stainless steel components of body units;
  - (B) doors, including door seals and rollers, tracks and hardware;
  - (C) loose fasteners.
- (i) with respect to internal combustion 2- and 4-cycle engines that use gasoline, diesel or alternative fuels, and engine auxiliary systems and accessories,
- (i) inspecting and testing
    - (A) engines and engine components and engine systems in and out of chassis, before and after service or repair;
    - (B) engine lubrication systems;
    - (C) engine liquid cooling systems;
    - (D) engine air cooling systems and air filtering or screening systems;
    - (E) engine intake and exhaust systems;
    - (F) fuel systems;
    - (G) engine control systems;
  - (ii) diagnosing engine problems;
  - (iii) diagnosing malfunctions;
  - (iv) repairing or replacing components;
  - (v) analyzing parts for failure and determining the causes of the failure;
  - (vi) removing and installing engines;
- (j) with respect to power trains, clutches, fluid drives, transmissions, transfer drives, drive lines, differentials, final drives and steering clutches and axles,
- (i) inspecting, testing and adjusting
    - (A) clutches;
    - (B) fluid drives, fluid couplings, torque converters, hydraulic retarders and other connecting units;

- (C) manual transmissions;
- (D) variable speed transmissions, high-low speed units, reverse units and hydrostatic transmissions and their control systems;
- (E) transfer drives;
- (F) drive shafts, u-joints, belt, chain and gear drives, mechanical winch drives, power take-offs and other drive lines;
- (G) front and rear differentials and axles;
- (H) steering clutches;
- (I) final drives;
- (ii) diagnosing malfunctions and irregular operation and performance;
- (iii) removing and installing
  - (A) complete components;
  - (B) complete transmissions;
  - (C) complete gear box drives;
  - (D) complete assemblies;
- (iv) removing, inspecting, overhauling, repairing and replacing
  - (A) assemblies and their parts;
  - (B) transmission parts and components;
  - (C) transmission control systems and components;
- (v) analyzing the failure of parts and determining the causes of failures and the reusability of parts;
- (k) with respect to electrical systems and circuits, batteries, charging, starting, lighting and accessories systems, spark ignition systems, electronic systems and circuits, electronic monitoring systems and electronic control systems,
  - (i) inspecting, testing, adjusting and replacing
    - (A) storage batteries;

- (B) components and circuits;
- (ii) diagnosing performance;
- (iii) isolating defects within the system or in another part of the machine;
- (iv) analyzing failures and determining the causes of failures;
- (l) with respect to hydraulic and hydrostatic systems, open and closed centre hydraulic systems, open and closed loop hydrostatic systems and control systems,
  - (i) inspecting, testing and adjusting
    - (A) open and closed centre main hydraulic working systems;
    - (B) open and closed hydrostatic drive and propel systems;
    - (C) hydraulic control systems;
  - (ii) diagnosing malfunctions;
  - (iii) removing and installing components as a unit;
  - (iv) testing, overhauling, repairing and replacing parts and components;
  - (v) analyzing the failure of parts and determining the causes of failures and the reusability of parts;
- (m) with respect to pneumatic systems and air supply and generating systems,
  - (i) inspecting, testing and adjusting air systems;
  - (ii) diagnosing malfunctions;
  - (iii) removing and installing components as a unit;
  - (iv) testing, overhauling, repairing and replacing parts and components;
  - (v) analyzing the failure of parts and determining the causes of failures and reusability of parts;
- (n) with respect to steering, brakes and suspension systems,
  - (i) inspecting, testing and adjusting

- (A) manual steering systems;
- (B) manual braking systems and brake foundation assemblies;
- (C) hydraulic steering and braking systems;
- (D) electrical braking systems;
- (E) suspension systems;
- (ii) diagnosing malfunctions;
- (iii) removing and installing components as a unit;
- (iv) removing, testing, overhauling, repairing, replacing and installing parts and components;
- (v) analyzing the failure of parts and determining the causes of failures and the reusability of parts;
- (o) with respect to frames, chassis, supporting structures, wheels and tracked undercarriages, cabs, heating systems, canopies and protective structures,
  - (i) inspecting, measuring, removing and installing
    - (A) frames, chassis, supporting structures and components of equipment and machinery;
    - (B) wheels, rims and tires;
    - (C) tracked undercarriages, components and parts;
    - (D) cabs, canopies and protective structures;
  - (ii) repairing and replacing
    - (A) frames, chassis, supporting structures and components of equipment and machinery;
    - (B) wheels, rims and tires;
    - (C) tracked undercarriages, components and parts;
  - (iii) adjusting and aligning frames, chassis, supporting structures and components of equipment and machinery;
  - (iv) adjusting and aligning wheels where applicable and tracked undercarriages, components and parts;

- (v) adjusting, aligning and repairing assemblies;
- (vi) inspecting and testing heating systems;
- (vii) diagnosing and isolating problems and determining causes;
- (viii) replacing components and making repairs;
- (p) with respect to attachments, ground engaging and working tools, booms, structural members, cables, hooks and slings,
  - (i) inspecting, adjusting, aligning, removing, installing, repairing and replacing equipment attachments and components;
  - (ii) inspecting and measuring booms, arms, masts and structural members for signs of misalignment, cracking, loose bolts, metal fatigue and overloading;
  - (iii) analyzing failures and determining causes and correcting where applicable or recommending speciality repair or welding;
  - (iv) inspecting, removing, installing and replacing equipment cables, hooks and slings;
- (q) with respect to preventive maintenance, operational safety and equipment economy,
  - (i) identifying and evaluating equipment failures and malfunctions relating to machine maintenance;
  - (ii) identifying unsafe operating practices;
  - (iii) communicating
    - (A) advice on maintenance to be performed;
    - (B) maintenance safety precautions;
    - (C) correct procedures for equipment inspections, operations, towing, loading, hauling, parking and storage;
    - (D) the importance of the use of proper fuel, lubricants, coolants, filters and similar items and providing advice in respect of those matters.

**Term of the apprenticeship program**

**12(1)** Subject to credit for previous training or experience being granted pursuant to an order of the Board, the term of an apprenticeship program for the power equipment branch of the trade consists of 3 periods of not less than 12 months each.

**(2)** In the first period of the apprenticeship program an apprentice must acquire not less than 1000 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

**(3)** In the 2nd period of the apprenticeship program an apprentice must acquire not less than 1000 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

**(4)** In the 3rd period of the apprenticeship program an apprentice must acquire not less than 1000 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

**(5)** Repealed AR 94/2011 s8.

AR 47/2001 s12;94/2011

**Part 4  
Recreational Equipment Branch  
of the Trade**

**Definitions**

**13** In this Part,

- (a) “marine equipment” means
  - (i) boats and trailers,
  - (ii) jet drives in boats and personal water craft,
  - (iii) outboard motors,
  - (iv) inboard-outboard engines, and
  - (v) stern drives;
- (b) “recreational equipment” means vehicles, including trailers designed for the transportation of the vehicles, that are not defined as power equipment in section 9 and that in the trade are commonly known as
  - (i) snowmobiles,

- (i) marine equipment, and
- (ii) outdoor recreational multi-wheeled utility vehicles that are not required to be registered under the *Traffic Safety Act* unless they are operated on a highway, but not including
  - (A) a motorcycle as defined in the *Motorcycle Mechanic Trade Regulation* (AR 291/2000), or
  - (B) a vehicle as referred to in section 5, 11, 17 or 23 of the *Heavy Equipment Technician Trade Regulation* (AR 282/2000).

AR 47/2001 s13;253/2003;221/2004;94/2011

#### **Undertakings constituting the branch**

**14** The undertakings that constitute the recreational equipment branch of the trade are the diagnosis and repair of recreational equipment.

AR 47/2001 s14;94/2011

#### **Tasks, activities and functions**

**15** When practising or otherwise carrying out work in the recreational equipment branch of the trade, the following tasks, activities and functions come within that branch of the trade:

- (a) selecting, inspecting, using and maintaining various hand and power tools, shop equipment, measuring tools and testing equipment;
- (b) retrieving and inputting applicable information using various media including service related computer software programs;
- (c) selecting, installing or removing fasteners, tubing, piping, couplings, fittings, hoses, electrical wiring and connectors;
- (d) selecting, installing, inspecting, adjusting and removing bearings, bushings, seals, belts, sheaves, pulleys, chains and sprockets;
- (e) selecting proper fuels, lubricants, coolants, sealants, adhesives, plastics and plastic metals for intended application;
- (f) inspecting, monitoring performance of and operating machinery and equipment;

- (g) assembling, testing, igniting and adjusting oxy-acetylene cutting and heating equipment and performing minor cutting and heating repairs;
- (h) with respect to internal combustion 2- and 4-cycle engines that use gasoline, diesel or alternative fuels, and engine auxiliary systems and accessories,
  - (i) inspecting and testing
    - (A) engines and engine components and engine systems in and out of chassis, before and after service or repair;
    - (B) engine lubrication systems;
    - (C) engine liquid cooling systems;
    - (D) engine air cooling systems and air filtering or screening systems;
    - (E) engine intake and exhaust systems;
    - (F) fuel systems;
    - (G) engine control systems;
  - (ii) diagnosing engine problems;
  - (iii) diagnosing malfunctions;
  - (iv) repairing or replacing components;
  - (v) analyzing parts for failure and determining the causes of the failure;
  - (vi) removing and installing engines;
- (i) with respect to power trains, clutches, fluid drives, transmissions, transfer drives, drive lines, differentials, final drives, axles, stern drives, lower units and inboard and jet drive motors,
  - (i) inspecting, testing and adjusting
    - (A) clutches;
    - (B) fluid drives, fluid couplings, torque converters, hydraulic retarders and other connecting units;
    - (C) manual transmissions;

- (D) power shift transmissions, high-low speed units, reverse units and automatic transmissions and their control systems;
- (E) transfer drives;
- (F) drive shafts, u-joints, belt, chain and gear drives, mechanical winch drives, power take-offs and other drive lines;
- (G) front and rear differentials, axles, stern drives, lower units and inboard and jet drive motors;
- (ii) diagnosing malfunctions and irregular operation and performance;
- (iii) removing and installing
  - (A) complete components;
  - (B) complete transmissions;
  - (C) complete gear box drives;
  - (D) complete assemblies;
- (iv) removing, inspecting, overhauling, repairing and replacing
  - (A) assemblies and their parts;
  - (B) transmission parts and components;
  - (C) transmission control systems and components;
- (v) analyzing the failure of parts and determining the causes of failures and the reusability of parts;
- (j) with respect to electrical systems and circuits, batteries, charging, starting, lighting and accessories systems, spark ignition systems, electronic systems and circuits, electronic monitoring systems and electronic control systems,
  - (i) inspecting, testing, adjusting and replacing
    - (A) storage batteries;
    - (B) components and circuits;
  - (ii) diagnosing performance;

- (iii) isolating defects within the system or in another part of the machine;
- (iv) analyzing failures and determining the causes of failures;
- (k) with respect to hydraulic and hydrostatic systems, open and closed centre hydraulic systems, open and closed loop hydrostatic systems and control systems,
  - (i) inspecting, testing and adjusting;
  - (ii) diagnosing malfunctions;
  - (iii) removing and installing components as a unit;
  - (iv) testing, overhauling, repairing and replacing parts and components;
  - (v) analyzing the failure of parts and determining the causes of failures and the reusability of parts;
- (l) with respect to pneumatic systems and air supply and generating systems,
  - (i) inspecting, testing and adjusting air systems;
  - (ii) diagnosing malfunctions;
  - (iii) removing and installing components as a unit;
  - (iv) testing, overhauling, repairing and replacing parts and components;
  - (v) analyzing the failure of parts and determining the causes of failures and the reusability of parts;
- (m) with respect to steering, brakes and suspension systems, inspecting, testing and adjusting
  - (i) manual steering systems;
  - (ii) manual braking systems and brake foundation assemblies;
  - (iii) hydraulic steering and braking systems;
  - (iv) electrical braking systems;
  - (v) suspension systems;

- (n) with respect to frames, chassis, supporting structures and components,
  - (i) inspecting, repairing and replacing wheels, rims and tires;
  - (ii) adjusting and aligning frames, chassis, supporting structures and components;
  - (iii) adjusting and aligning wheels where applicable;
  - (iv) adjusting, aligning and repairing assemblies;
  - (v) inspecting and testing heating systems;
  - (vi) diagnosing and isolating problems and determining causes;
  - (vii) replacing components and making repairs;
- (o) with respect to attachments and working tools, structural members, cables, hooks and slings,
  - (i) inspecting, adjusting, aligning, removing, installing, repairing and replacing vehicle attachments and components;
  - (ii) inspecting and measuring structural members for signs of misalignment, cracking, loose bolts, metal fatigue and overloading;
  - (iii) analyzing failures and determining causes and correcting where applicable, or recommending speciality repair or welding;
  - (iv) inspecting, removing, installing and replacing equipment cables, hooks and slings;
- (p) with respect to preventive maintenance, operational safety and vehicle economy,
  - (i) identifying and evaluating component failures and malfunctions relating to vehicles;
  - (ii) identifying unsafe operating practices;
  - (iii) communicating
    - (A) advice on maintenance to be performed;
    - (B) maintenance safety precautions;

- (C) correct procedures for vehicle inspections, operation, towing, loading, hauling, parking and storage;
- (D) the importance of the use of proper fuel, lubricants, coolants, filters and similar items and providing advice in respect of those matters.

AR 47/2001 s15;94/2011

#### **Term of the apprenticeship program**

**16(1)** Subject to credit for previous training or experience being granted pursuant to an order of the Board, the term of an apprenticeship program for the recreational equipment branch of the trade is 3 periods of not less than 12 months each.

**(2)** In the first period of the apprenticeship program an apprentice must acquire not less than 1000 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

**(3)** In the 2nd period of the apprenticeship program an apprentice must acquire not less than 1000 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

**(4)** In the 3rd period of the apprenticeship program an apprentice must acquire not less than 1000 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

**(5)** Repealed AR 94/2011 s12.

AR 47/2001 s16;94/2011

**Part 5** Repealed AR 94/2011 s13.

### **Part 6 Expiry and Coming into Force**

#### **Expiry**

**21** For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on August 31, 2014.

AR 47/2001 s21;394/2003;34/2008;3/2010

#### **Coming into force**

**22** This Regulation comes into force on April 1, 2001.