

## Laborers Landscape and Irrigation Fitters

### Trencher Syllabus

**Time:** 8 hours

**Maximum Class Size:** 12

**Prerequisites:** None

**Course Description:** This course presents the step-by-step basics of handheld trenchers for small jobs and the Ditch Witch 3700 for larger jobs. The design concepts, operating controls, safety features, and basic operation are covered. Safety practices, hand signals, Utility Locating and potholing are introduced. Participants practice pre-start, post-start and parking procedures. Among the additional skills introduced are maneuvering in small spaces, digging trenches for landscape edging and irrigation lines, following a lay-out, digging in a straight line and digging lateral feeds. Participants are given ample hands-on practice in order to develop skills on both the handheld Trenches and Ditch Witch 3700.

#### Goals/Objectives/Student Learning Outcomes

- Name required Personal Protective Equipment that must be used when operating a Trencher.
- Describe the purpose of “Dig Alert” and Pot holing.
- Discuss the uses of the Trencher in the construction industry.
- Identify all components, systems and controls of the Trencher.
- Correctly perform a start-up check: Check for leaks; check oil, hydraulic fluid, water level, hoses, tension on belts and tracks.
- Identify uses for each attachment.
- Correctly identify attachments and their uses.
- Identify potential safety issues on the jobsite when using a Trencher
- Describe “Dig Alert” and pot-holing.
- Start-up the Trencher.
- Safely drive the Trencher where directed.
- Successfully complete a shallow trench in a straight line.
- Successfully dig lateral feeds for irrigation lines.
- Successfully dig a trench for landscape edging.
- Dig a trench correctly, following a lay-out
- Safely park the Trencher where directed.
- Load, secure and unload equipment using a Utility Trailer.

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- Perform shut-down procedure.

#### Standards

- OSHA 29 CFR Part 1926.600, 602 (a) Subpart O-Materials Handling, Motor Vehicles & Mechanized Equipment
- OSHA 29 CFR Part 1926.1000 Subpart O-Rollover Protective Structures; Overhead Protection
- Cal/OSHA Subchapter 4, Article 10-Haulage & Earth Moving Equipment: 1590-1596

#### Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

#### Textbooks/Readings/Materials

- *LIUNA* Subpart P: Excavations IG/PG
- *LIUNA* Utility Locating Program IG/PG
- Ditch Witch 3700 Specifications Handout
- Trencher Safety Handout
- Hand Signals handout

#### Tools/Equipment/Other Materials

- Ditch Witch 3700 Trencher
- Hand-held Trencher

#### Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 12 hard hats

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#### **Course Requirements**

To receive credit for the course, participants must:

- Be present for full eight hours
- Participate in all classroom exercises
- Pass a hands-on exam

#### **Course Policies**

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

#### **Assessment and Grading**

Participants will be assessed on the following:

- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

#### **Safety**

Failure to maintain and use PPE may result in dismissal from the course.