Construction Trades I

Project Book 1-Chapter 2:

Layout and Measurement Tools

April 16, 2020

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Project Book 1-Chapter 2: [April 16, 2020]

Objective/Learning Target:

Students will learn about different measuring/layout tools and how to use them properly.

Measuring, marking and layout tools

What You Now Know

-Tools make it easier to accomplish a task

-Safety is an important part of tool use

What You Will Know

-Why tools are so important to a carpenter

-How to use measuring, marking, and layout tools

Showing respect for tools

What is a tool?

-Any object or device that makes it easier to accomplish a task

Showing respect for tools-Continued

Importance of using tools with cars

-Tools should be shown proper respect

-keep tools clean

-properly store all tools

importance of tool safety

-professionals know how to use tools safely

types of tools

-carpenters use a broad range of tools

TOOLS USED FOR MEASURING, MARKING AND LAYOUT

LINEAR MEASUREMENTS

- LINEAR MEANS RELATING TO A STRAIGHT LINE
- LINEAR MEASUREMENT IS THE LENGTH OF A STRAIGHT LINE

HOW MEASURING TOOLS ARE MARKED

- THE EDGES OF MOST MEASURING TOOLS ARE MARKED IN INCHES AND FRACTIONS OF AN INCH.

Retractable Tape Measure

Retractable Tape Measure Markings

-Blade marked off in feet, inches, and fractions of an inch

-Inch marks between each foot mark

-Inch marks are 1 through 11

-After the mark for first foot, inch marks are smaller and usually another color

-Larger numbers indicate the total number of inches from the beginning of the tape

Combination square

The combination square can help to manage the following tasks:

-Measure length, width, and depth

-Lay out 90° angles and 45° angles

-Lay out and mark diagonal and parallel lines

-Test for square or the accuracy of 90° angles both inside and outside of an object

Speed square

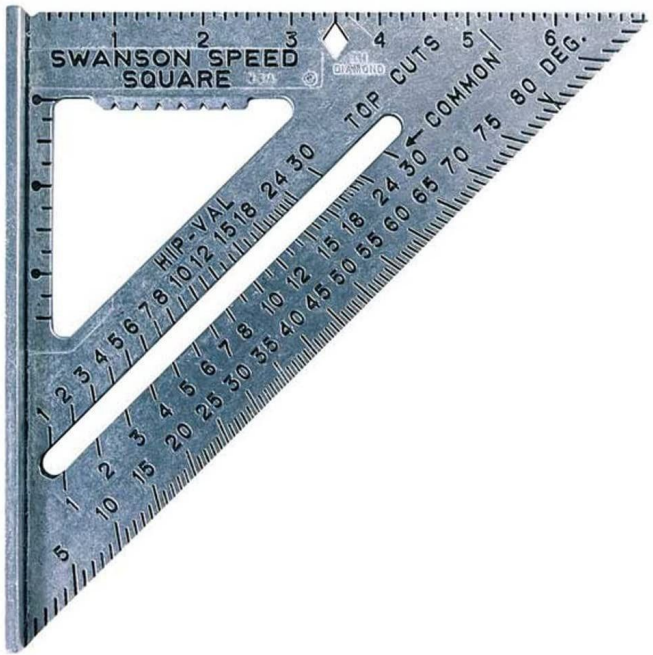
Three-sided layout tool that I used to:

-Draw straight lines

-Lay out angles

-Guide the cuts of saws

-This tool is easy to store and carry around in a work area.



COMPASS

.Precision instrument used to:

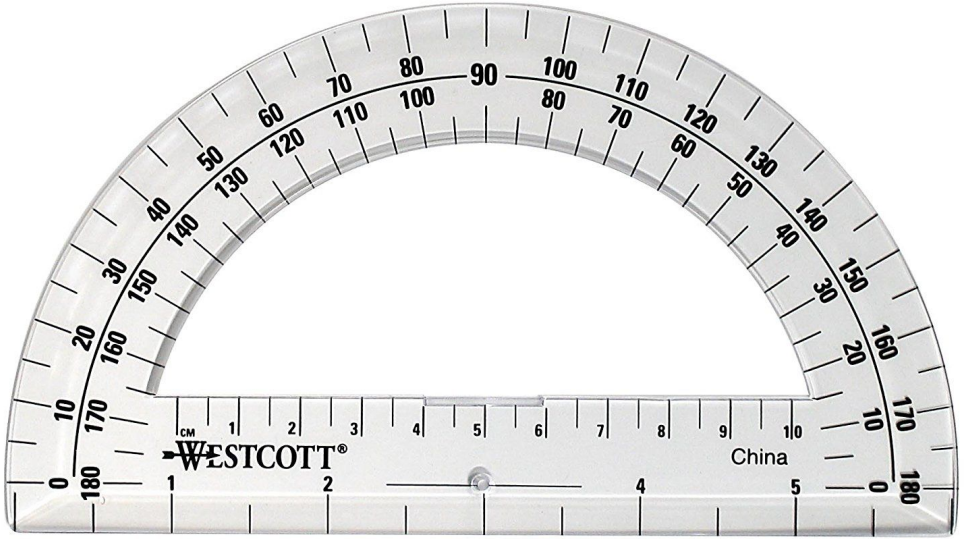
-Lay out circles and arcs

-Construct lines and arcs

-Transfer irregularities of various materials or components

PROTRACTOR

- CIRCLE DIVIDED INTO 360 INDIVIDUAL DEGREES
- USED TO DEFINE AN ANGLE AND MEASURE PORTIONS OF AN ARC

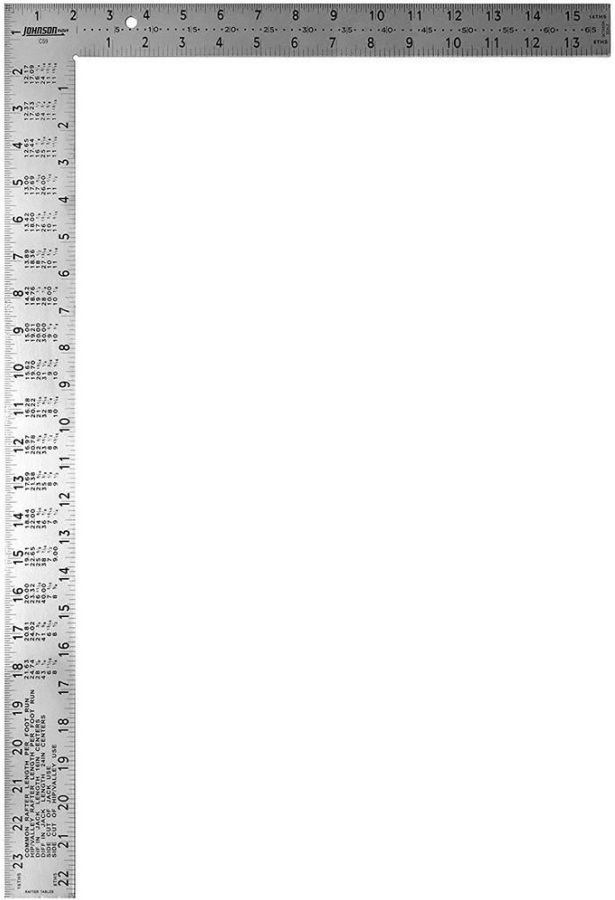


SLIDING T-BEVEL

- METAL BLADE ATTACHED TO A WOOD OR METAL HEAD WITH A LOCKING DEVICE
- SLOT IN BLADE ALLOWS THE LENGTH AND ANGLE TO BE ADJUSTABLE

FRAMING SQUARE

- FLAT, L SHAPED MEASURING AND LAYOUT TOOL
- USED TO CHECK AND MARK 90 DEGREE ANGLES
- BODY IS 24" LONG AND 2" WIDE
- TONGUE IS 16" LONG AND 1.5" WIDE



STRAIGHT EDGE AND CHALK BLOCK

STRAIGHT EDGE

- ONLY USEFUL FOR DRAWING RELATIVELY SHORT LINES OR EXTENDING AN EXISTING LINE

CHALK BOX

- STRING WOUND INSIDE A CONTAINER FILLED WITH POWDERED CHALK
- STRING HITS THE SURFACE OF THE MATERIAL AND LEAVES A VERY STRAIGHT LINE