



RAIL ALIGNMENT KIT



The Rail Alignment Kit brings an innovative solution to an old problem – the proper alignment of a headrig primary breakdown line. When coupled with our Sawmill Kit, the Rail Alignment Kit provides fast, accurate alignment of headrig carriage rails, band mill wheels and band saws. These kits also guide the alignment of overhead end-dogger and round rail carriage systems.

Misalignment of these components can drastically reduce a log's yield. These lines do not have a symmetric machine centerline like other primary breakdowns, so the alignment must be approached differently.

HOW IT WORKS

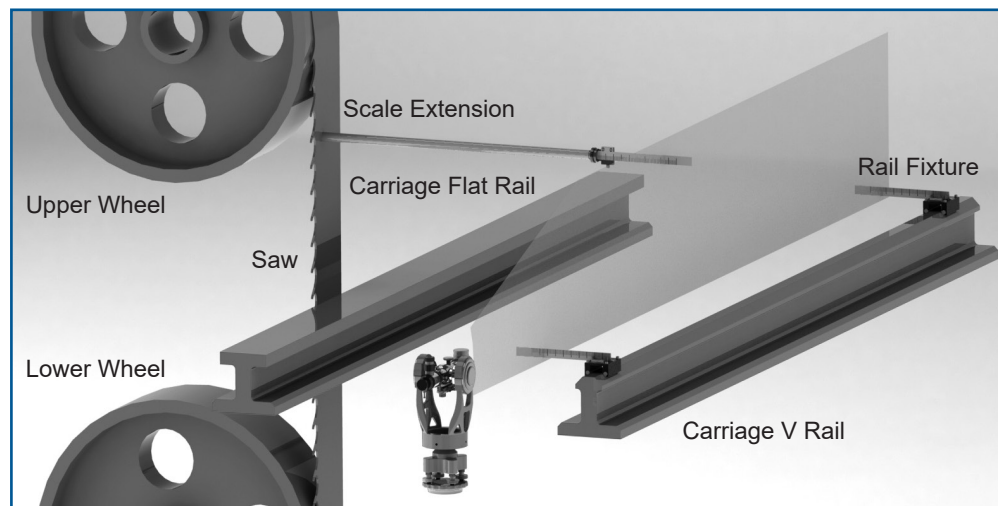
When a headrig is properly aligned, the carriage transports a log precisely parallel to the band saw cutting plane (see illustration below showing a basic headrig layout). Machine alignments include the following steps:

- Level and straighten the carriage V-rail. It is the driving component of the line.
- Level the flat rail relative to the V-rail.
- Install the band saw on the band mill wheels, then measure the band saw to set the wheels for plumb and "cross line" (also called skew) relative to the V-rail.
- Install the band saw guides and band saw, then precisely align the band saw for plumb and parallelism. Simultaneously, the operator can calculate and set the offset (also called guide pressure).

These measurements are taken with the jig transit in the Sawmill Kit, which sweeps precise planes in both horizontal and vertical directions. The Rail Alignment Kit provides innovative targeting to reference machine features, allowing the jig transit to perform level, plumb, and straightness alignments quickly and accurately.



The Rail Alignment Kit comes in a hard sided case for easy and durable transit.



INVAR ROD

Invar is an alloy known for its extremely low coefficient of thermal expansion. In uncontrolled mill environments, this provides a lightweight, stable extension rod for measuring the relative positions of critical path machinery. Multiple length rods facilitate any stack-up length required.

MAGNETIC TIP

Provides a quick, positive way to seat the invar rod squarely against machine surfaces such as rails and band saws.

SCALE

The optical tooling scales in this kit provide 0.001" (.02 mm) measuring accuracy over the full scale length. This provides great flexibility when needing to measure beyond obstructions or locate one feature relative to another. Scales may also be mounted to invar rod when additional spans are required.

Rail fixture

This unique fixture provides a moveable, repeatable, magnetic scale holder that slides along the length of the carriage V-rail. With a jig transit aligned to the ends of the rail, these fixtures allow the intermediate rail sections to be precisely adjusted in a straight line.

LEVEL

A bubble level installed on the top surface of the rail fixture provides "clocking" control to assure it mounts in the same orientation at each position along the rail. Two fixtures are included to measure on both sides of the carriage.

SCALE STOP

Each rail fixture has a mechanical stop to seat the scale against, providing a consistent "zero reference" for all measurements.

ON THE INSIDE

The Rail Alignment Kit (9106, English or 9106-M, Metric) includes the following items, shown in the image below.

- A** 10 in Scale (6010, English) [x2] or 250 mm Scale (6250, Metric) [x2]
- B** 20 in (508 mm) Extension Rod (12473-20IN) [x4]
- C** 10 in (254 mm) Extension Rod (12473-10IN) [x2]
- D** 5 in (127 mm) Extension Rod (12473-5IN) [x2]
- E** Connector, Extension Rod (12406-1) [x10]
- F** Ball End Tip (12410-G1) [x2]
- G** 1 in (25.4 mm) Concave End Tip (12410-G2) [x2]
- H** Magnetic Base (18312) [x1]
- I** Scale Holder, Extension Rod (8665-G1) [x1]
- J** Scale Holder, Rail Fixture (18163) [x2]

Pictured on front, Hard Sided Case with Custom Foam Insert



877 - MEASURE
www.brunson.us/rail-alignment

8000 East 23rd St
Kansas City, MO 64129

