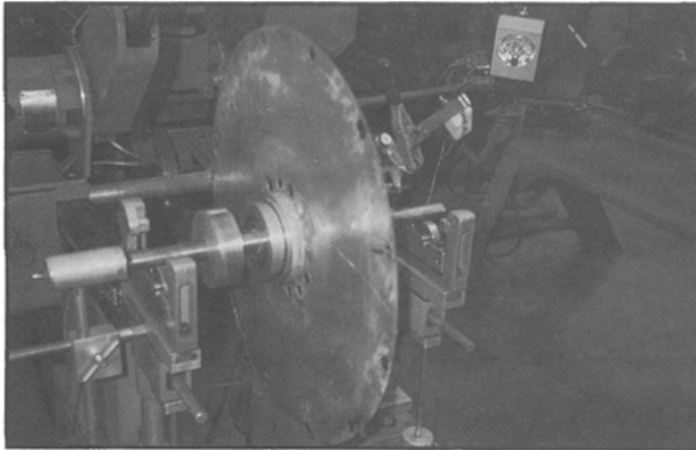


# Balancing Technology

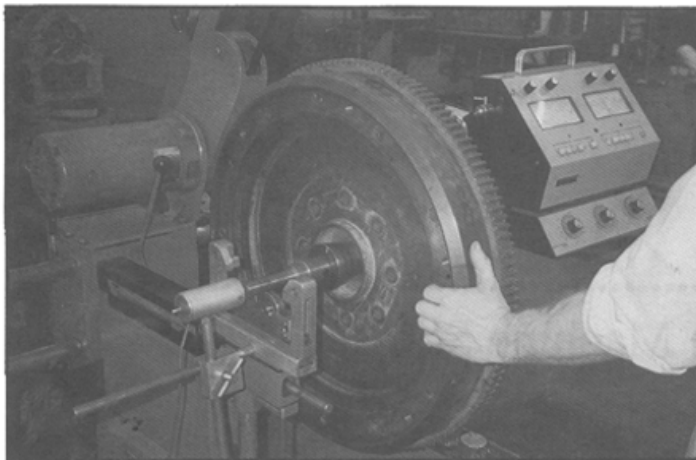
John Bianchi & Gary Hildreth

While looking at these graphs, charts and overheads, keep in mind that your per hour rate is considerably more when dealing with the industrial side of balancing. We will be discussing the time it takes to do these jobs. The time given will include both set up and tear down. We are not trying to tell anyone what to charge. We are merely pointing out the value added to an industrial customer. Experience has shown a return of approximately 2 to 2½ times shop rate.

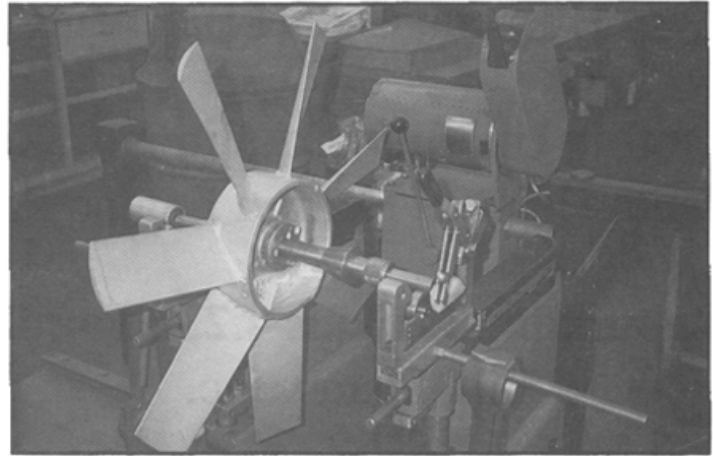
Lets look at some of the charts, since a picture is worth a thousand words. Keep in mind that we are targeting non-automotive work with these slides. Also, these jobs required only off the shelf equipment. It is important to know that special tooling is seldom needed.



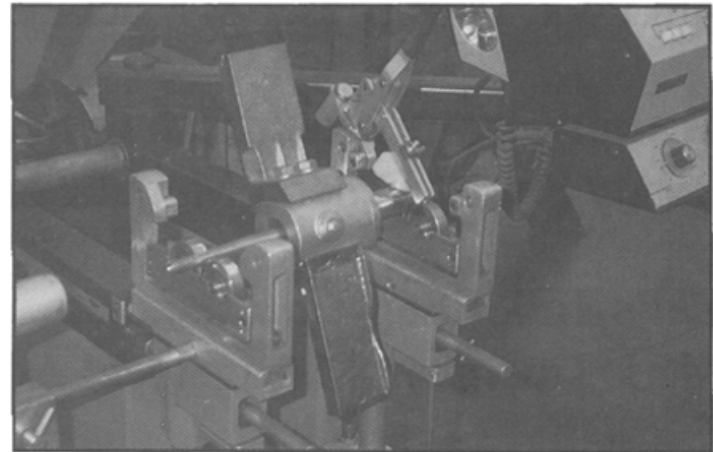
1. Our first slide is of a shaping disc, approximately 2½ feet in diameter. It is used in the wood products industry. The time taken to complete the job is 35 minutes.



2. Slide two, is a heavy duty flywheel. Self explanatory for applications, time 30 minutes.



3. Number three is an air duct fan with a balance time of 40 minutes.



4. Next we have an impeller that throws steel shot. The steel shot or balls wear away the front or leading side of the impeller. Rather than throw it away, the fix is to turn the impeller 180 degrees on the hub. But guess what, it then needs balancing. Total balancing time is 15 minutes per unit.

As you can see, from our next slide the job was to balance 10 units. This job would return at the rate of about 9½ times normal hourly rate.