Equipment Re-Homing Sale

Part 1

Cash, Credit / Debit cards accepted

DAVE KOEHLER Injection

1888 CR 1600 N
Urbana, IL 61802
217-531-1770

www.koehlerinjection.com



Balancing Nitrous Master Products Fuel Injection

Balancing shop for sale

Balancing Background

I began balancing around 1975. Over the years I have purchased and operated 4 different machines due to upgrades in technology. This seemed to be in 10 yr increments.
Stewart Warner, Balance Technology, ProBal (Before T&S) and currently Cemb/RMC.
The ProBal only lasted 2 days before I sent it back. .

I ultimately chose the CEMB based on it's adjustability, repeatability and size capabilities.
The only commercially available machines aimed at engine shops that have that adjustability is the OLD SW, Schenk out of Germany and CEMB out of Italy.
Current models like CWT, TS and so forth only expect one to balance crankshafts. Only one problem with that. There is more out there to balance that pays a higher labor rate than v8 cranks.
The other downside to non adjustable stanchions is that there are cranks and industrial parts that do not have the same diameter on each end. The Cemb solves this problem easily.

Cemb is a big company out of Italy. Looking at them closely I believe 90% of tire balance machines sold in the US are rebadged Cembs. I have also come to believe that Schenck and Cemb are still way ahead of the US in balance technology. Once you start looking outside of engine shops it is pretty wild the machines that these companies produce for us and factory mass production applications.

Display
When I ordered this machine they offered a pretty monitor based control much like CWT and others push these days. A little study showed that in spite of pretty circles, etc they spit out the same info as a digital gauge setup. I opted to stay with the time proven digitals. Even though today some of the PC screens show more gadgetry they still show the same results as digitals.

IF I was to keep balancing and wanted a new machine I would still look no further than Cemb or Schenck. However, I have not seen a new leap in technology so that would be a savings or a plus.

You will see in the following pages all the items that are included with this sale.
Other things that you need and can also use for other things is:
A 14x40 or larger lathe.
You will run into cranks that you need to reduce the CW diameter in order to do a top notch job.

Vertical mill
For drilling/boring holes in Cws for heavy metal installation. Sometimes a partial CW reduction is needed beyond hitting it with an angle grinder. Mills are good for this.

TIG Welder
Sometimes you have to fill in a previously drilled hole. Tig makes for a nice look for completing the job after machining a slug to fill the hole. A used tranformer machine, Miller or Lincoln will do the job.

Basic Machine Specs
Min / Max part weight: 2.5-1000 lbs
Max diameter between stanchions: 41”
Max diameter overhung off the end: 72”
Min/max length between stanchions: 6-65” (longer when using the outboard stanchion)
Min/max driving diameter: .190 - 3.93 (the range is actually wider than this with different belts used)
Sensitivity (grams/inch) .02 with V blocks
.008 with rollers
Balance Speed: 125-5000 rpm (most of the time I do cranks between 300-400) slower is possible.
Drive off irregular surfaces: yes with V blocks
Drive Motor: 1.5 HP
Electrical 220v single phase, 15 amp

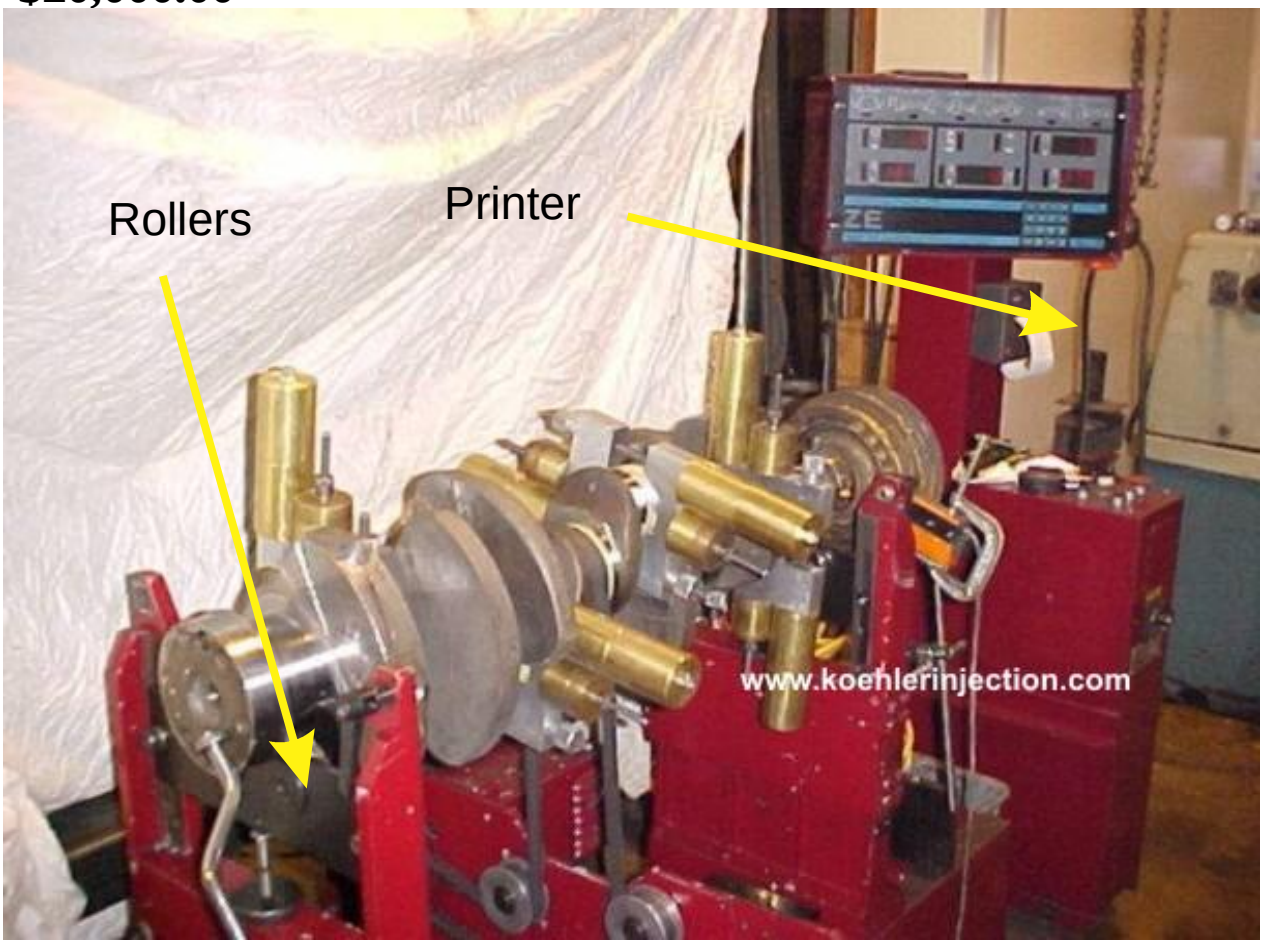
This setup has a Varispeed mill/drill mounted on the backside for drilling Cws. The head is rotated 180 for machining pistons . I have my layout so the bench for doing rods and pistons is behind me. Weigh parts, turn around and machine pistons and so forth. Makes for a fairly efficient layout. The Drill/mill is on rollers wiih an air lock down system.

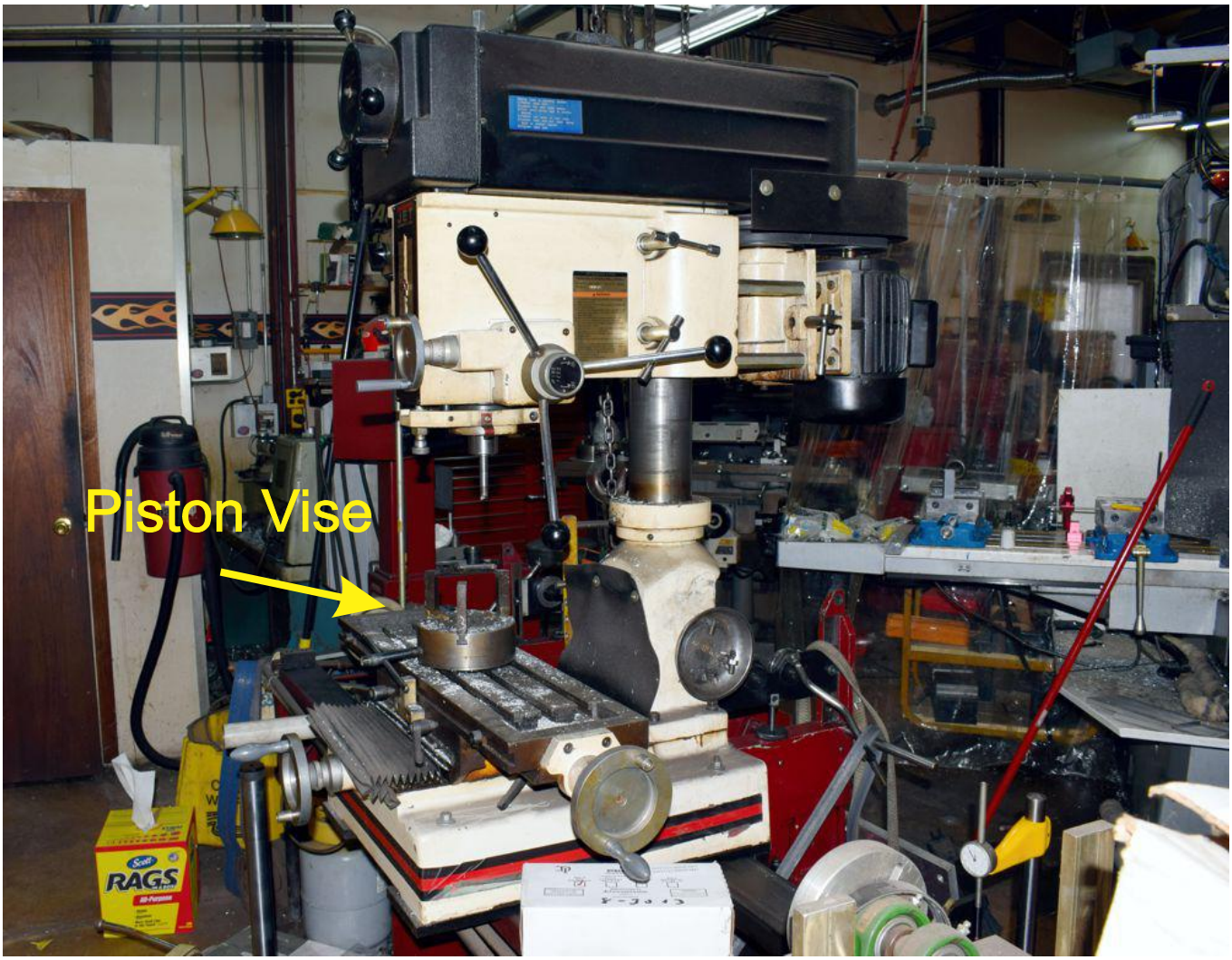
Machine also has a printer that spits out the final results and a whole bunch of other results if desired.

What follow is what is included.

This can be dismantled for loading on a car trailer with a full floor. Between the trailer and a pickup bed I think it can all be moved at once. I think once dismantled we can load the major pieces with a cherry picker and some sweat equity. Components, etc included follow. Read on to see that you get a lot for your money.

$20,000.00







R8 Collets 1/2 & 3/4"
Special cutter for piston metal removal.

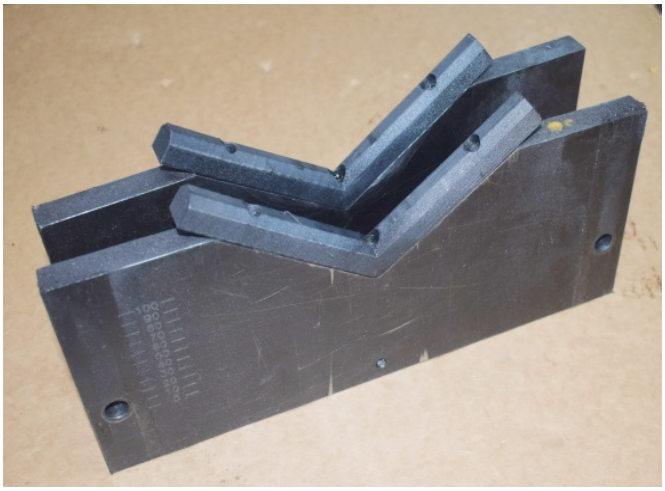


Laser for precision marking of crank counterweight correction.

https://lasercenteredgefinder.com/



Cemb Roller supports
For heavy pieces



Cemb V Blocks
For most crankshafts to avoid marring



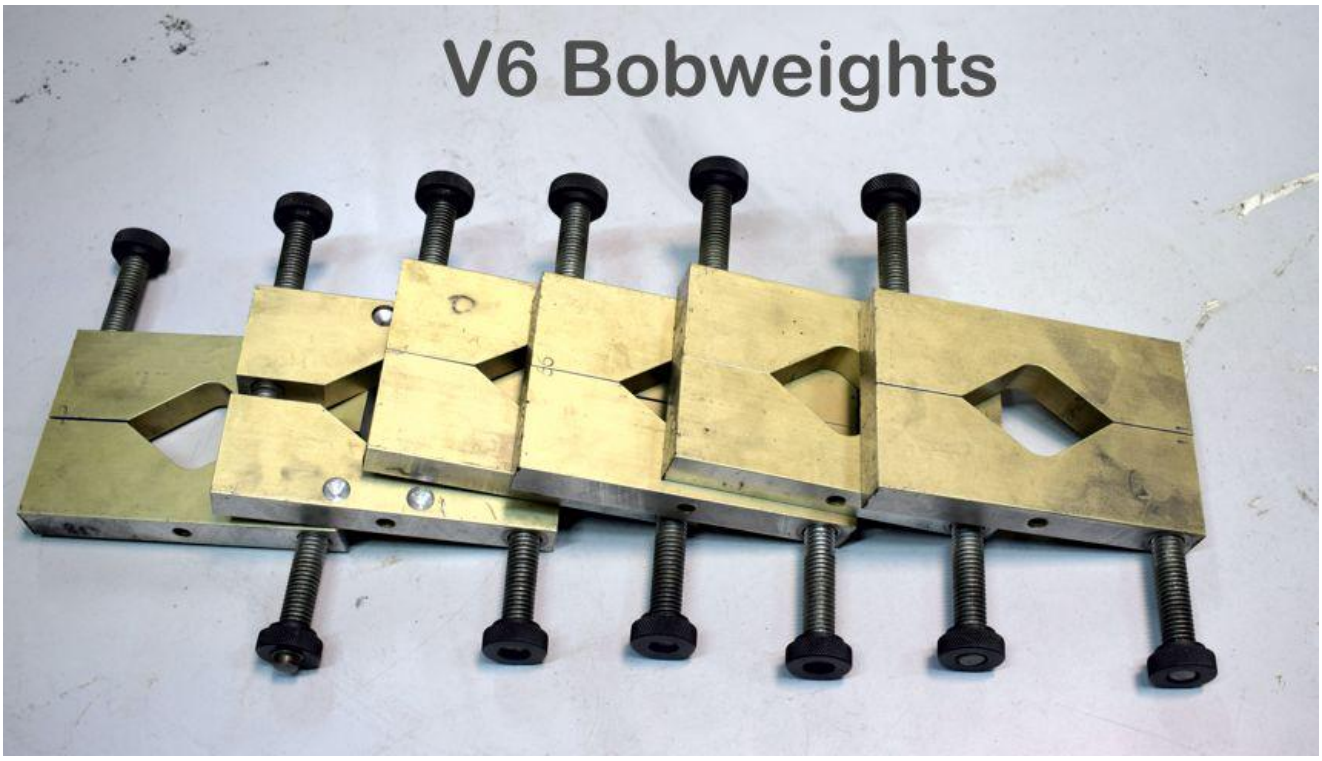
Balance Clay
For testing location and weight.



Machine manual plus books, articles and notes I have collected over the years.


V8 Bobweights


Harley Bobweight


V6 Bobweights


Small 1 or 2 cyl Bobweights


Mini Bobweight


Mini-mini bobweight



You can do some really heavy V8s with this group.





Koehler Tools to center BW on rod journal



Calibration Arbor. Hard bearing machines don't need calibrated like soft bearing machines.
This just makes it easy to confirm specs when you get confused..

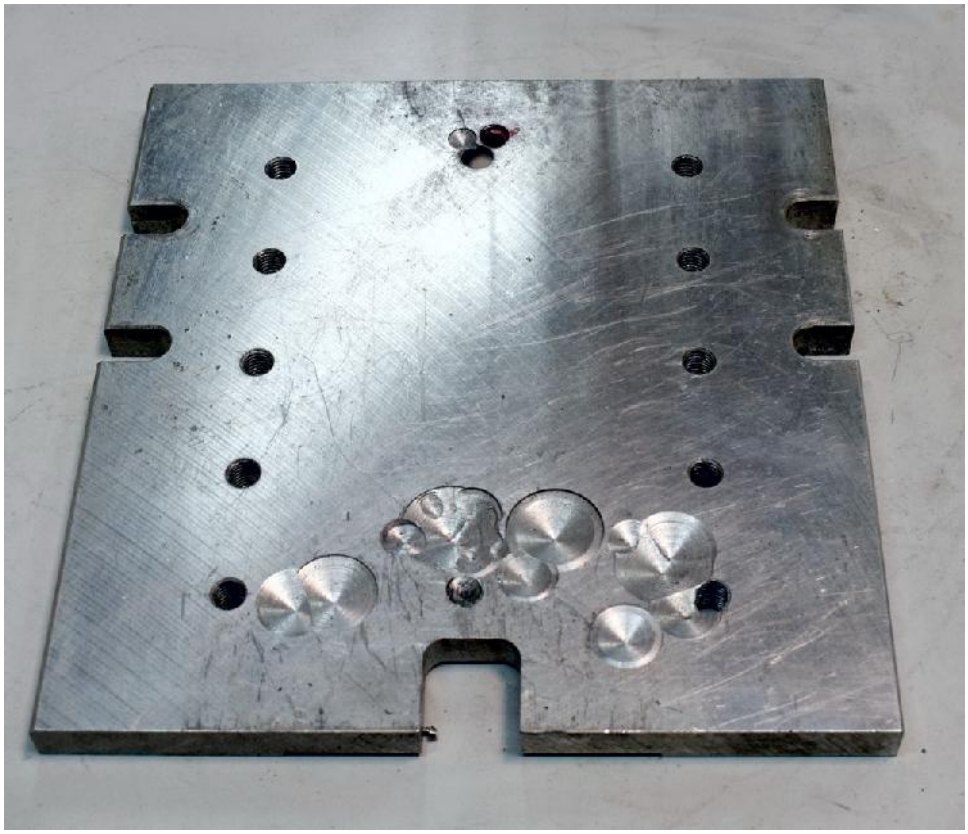
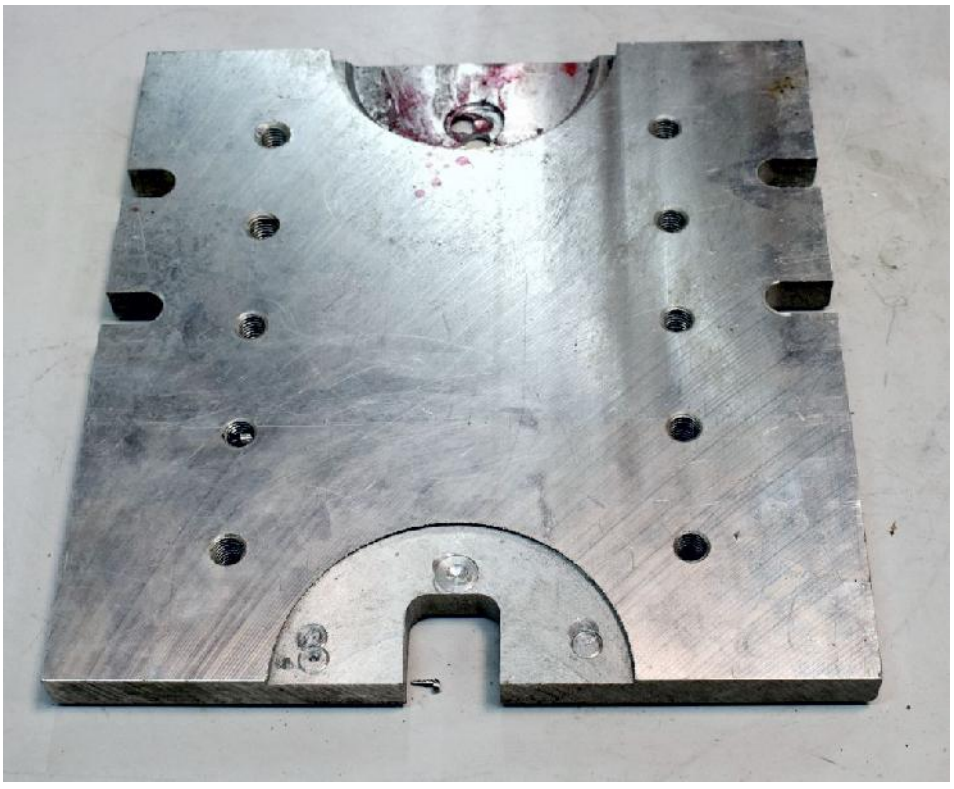


Plate that mounts to a mill table. Holds crank for heavy Metal drilling/boring.
Relieved for smaller cranks and cams.
1/2 nc holes accomodate standard mill studs and clamps





Whatever is left at sale is what you receive



You don’t run into needing these too often. Just once in a great while on a weird app.



Koehler drill bit center tools.

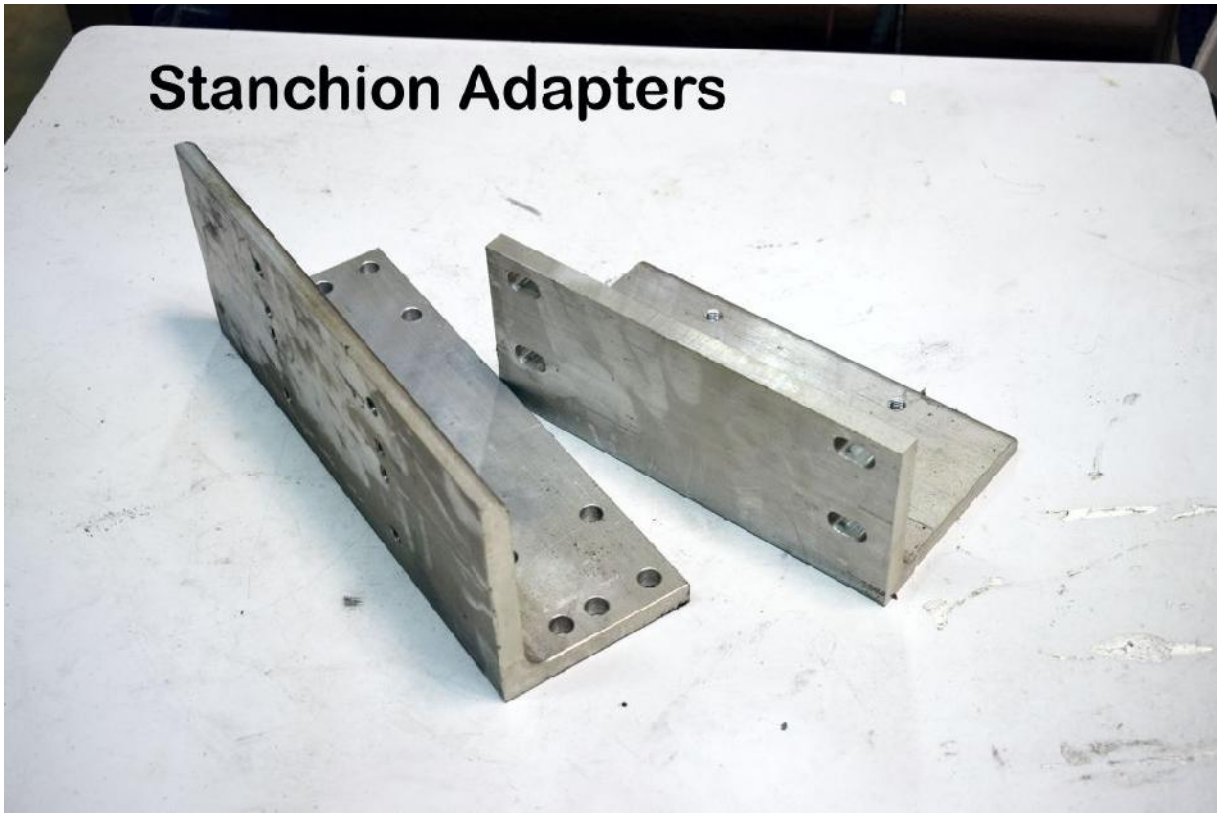
1", 7/8", 3/4" included
Other sizes made to order.

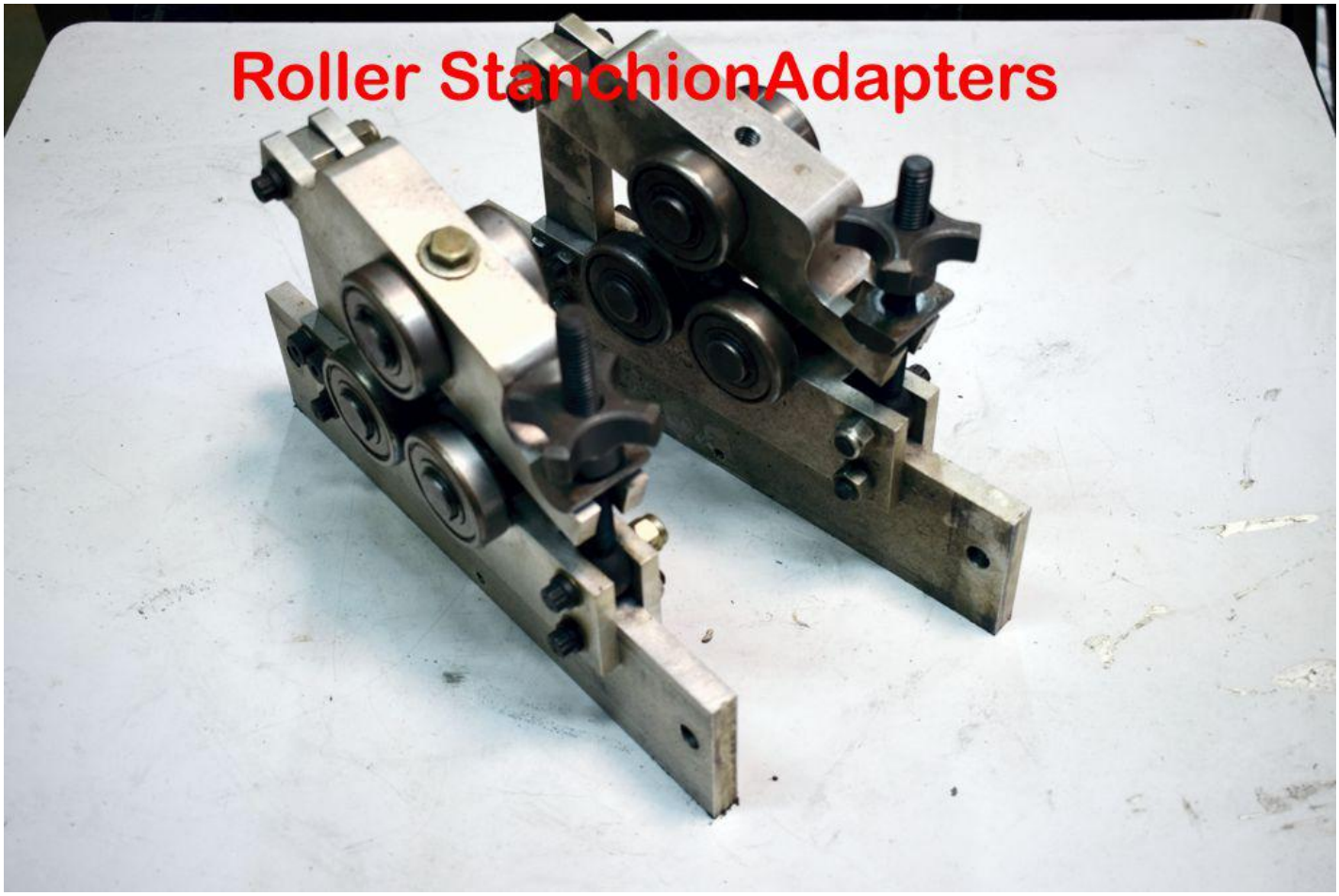


Outboard Stantion
For things longer than the bed.
Shown with driveshaft flange end adapter.


Stanchion HorizontalExtenders


Stanchion Adapters


Stanchion Adapters


Roller StanchionAdapters

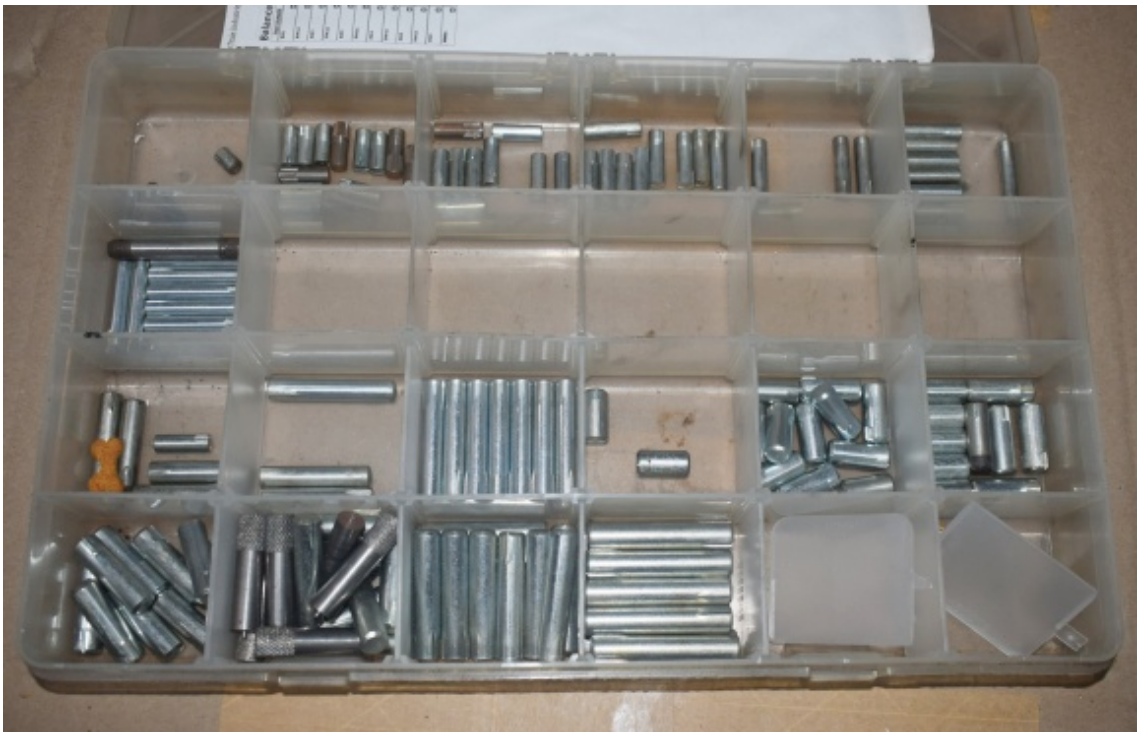


Correction: Tapered

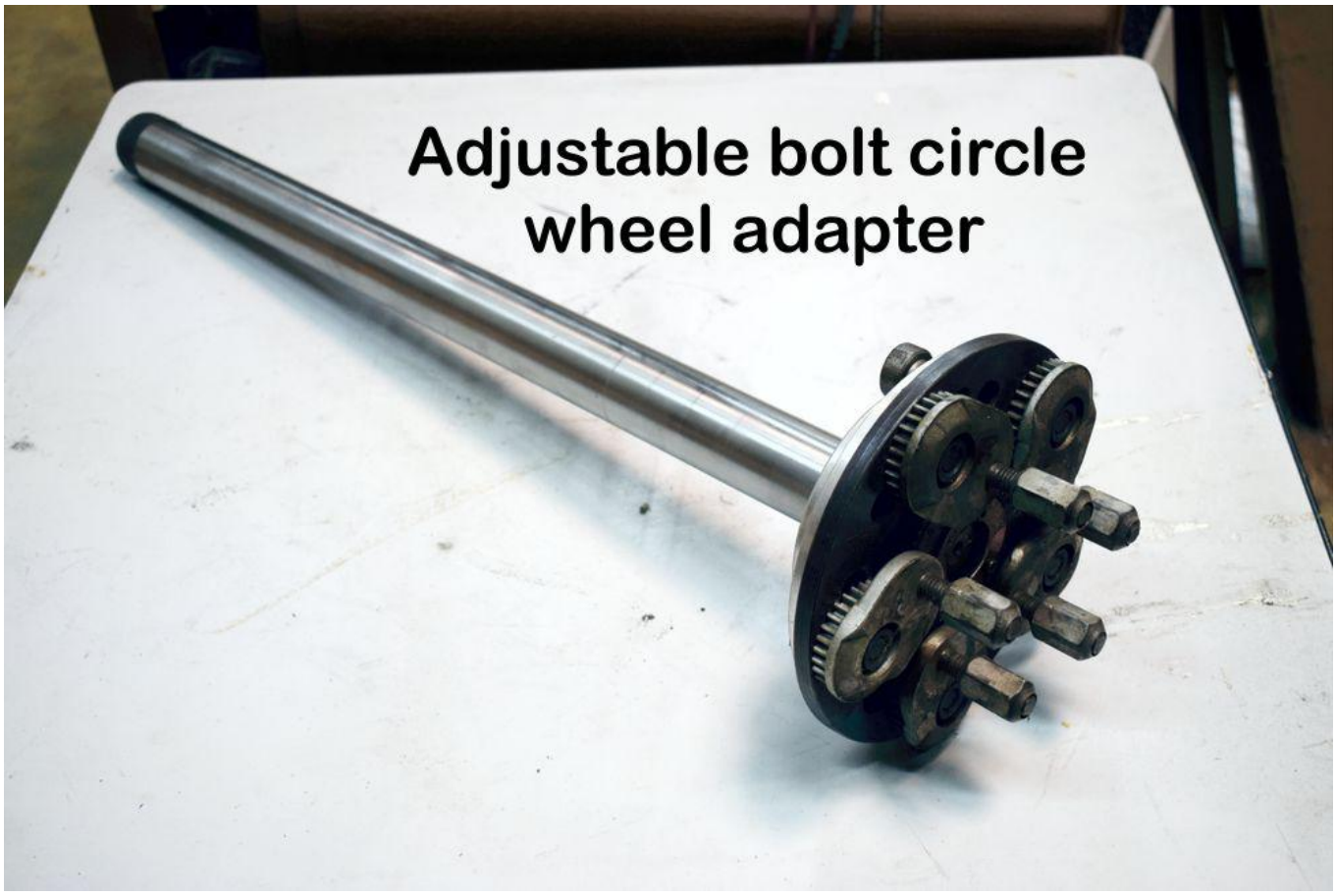




There also some flywheels, flexpates included (not shown) for testing purposes

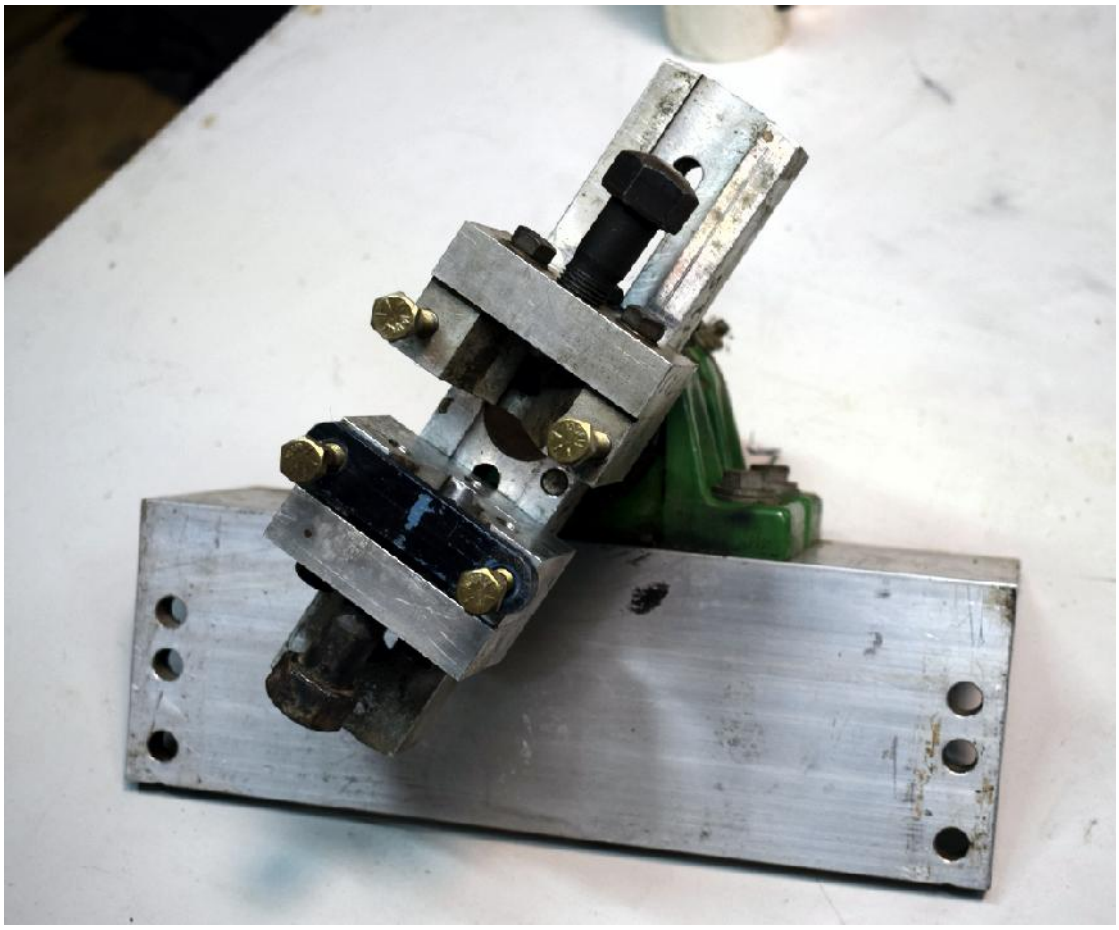


Balance pins for Harmonic Balancers, flywheels & Clutch Covers





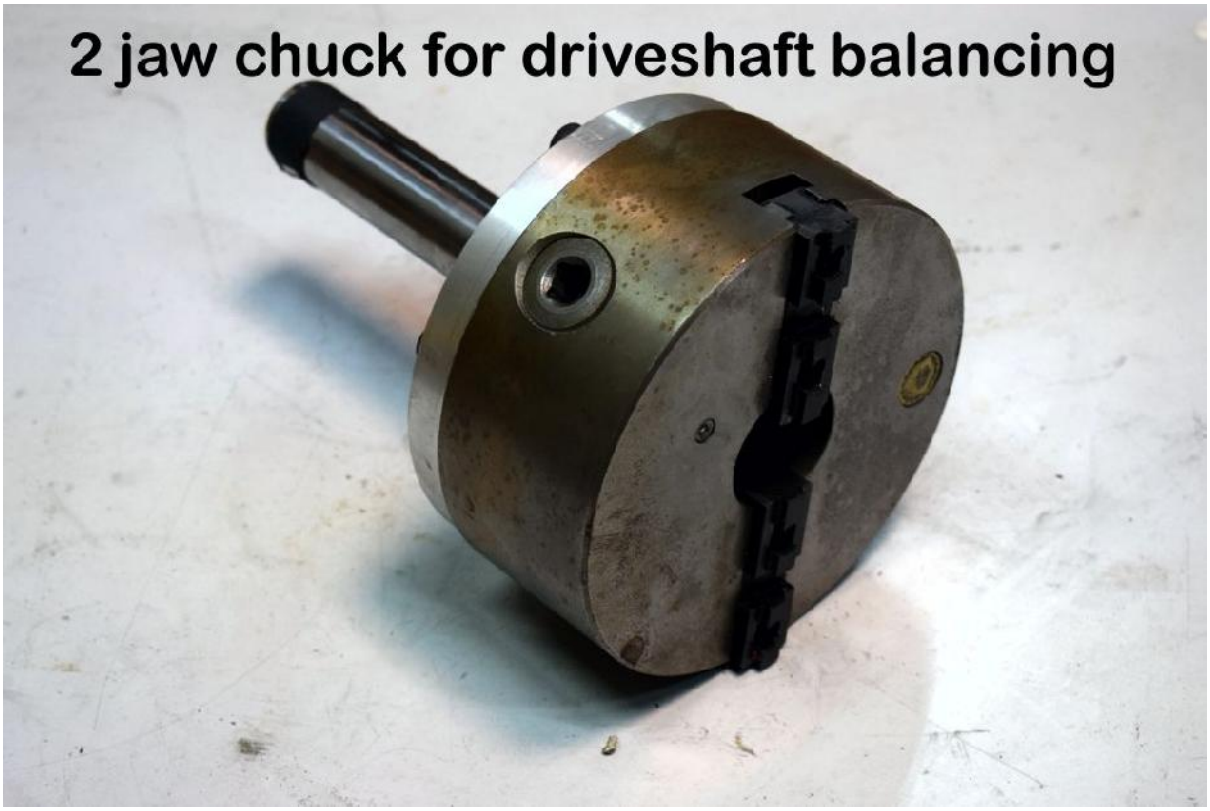
Used primarily for electric armatures



Driveline adapter for U joint end



Driveline adapter for flange yoke



This adapter I haven’t got around to finishing.
The plan was to make some soft jaws to grab the exposed ujoint end of the driveshaft. This would auto center the shaft and will be far easier then the previous tool shown earlier. It required measuring and adjusting back and forth until the joint was centered.



This is a money maker.
Sure, it looks like every other one out there but there is a distinction. About 12 years ago I designed a system that allows you to measure and correction balance or change the balance on any flywheel quickly and simply. As far as I can tell I am the only one in the world that figured this out.
You can confidently correct the imbalance on any external flywheel. You can convert any flywheel from neutral to weighted and reverse.
You will be able to know how much and at what degree point you are or want to be.

I get flywheels shipped in from all over the country since I can confidently correct or modify the flywheels. Pretty sweet deal.

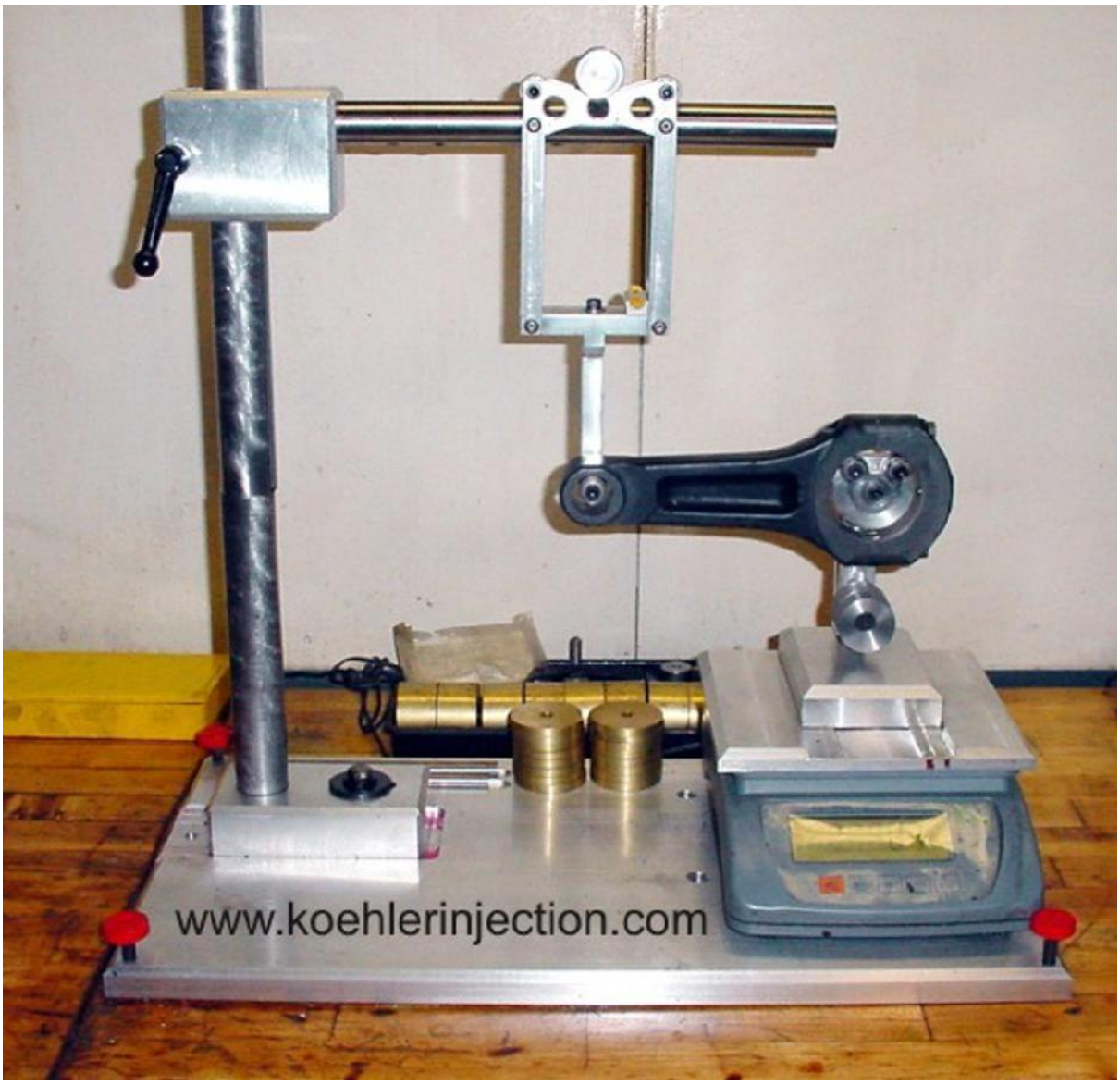
The next page will show some of the adapters for popular engines.

I plan to market this and a couple of other things once I sell the equipment


08.09.20




CASIO
DUAL LEAF SL-200
Friction Tape
Consumables



This is my latest incarnation for balancing rods. I keep chasing simpler and repeatable. Same scale used for pistons, etc.

Not shown:
A laptop with 7 programs for balancing. These include a main program that keeps track of your jobs and create balance cards. The other programs and spreadsheets allow you to figure weird stuff out.
Also included on the laptop will be all the articles, notes and photos I have collected over the years.

Expanding mandrels

For holding pullies, etc



You may be wondering about heavy metal installation tools.Some time back i switched to boring the holes on my mill.I had more control over the final press fit this way.So, I re-homed the drills and reamers.

Training

If you are within a 2 hour drive I will come to your place for 4 hours of training free of charge. I will walk you through the normal and weird things you may run into. Obviously, have something to balance ready to go.

Beyond 2 hour drive.

80.00 per hour drive time coming and going. Payment on arrival.

End of Balance Shop sale Info

Things other than crankshafts I have Balanced

when I remembered to take pictures



10 foot paper roll

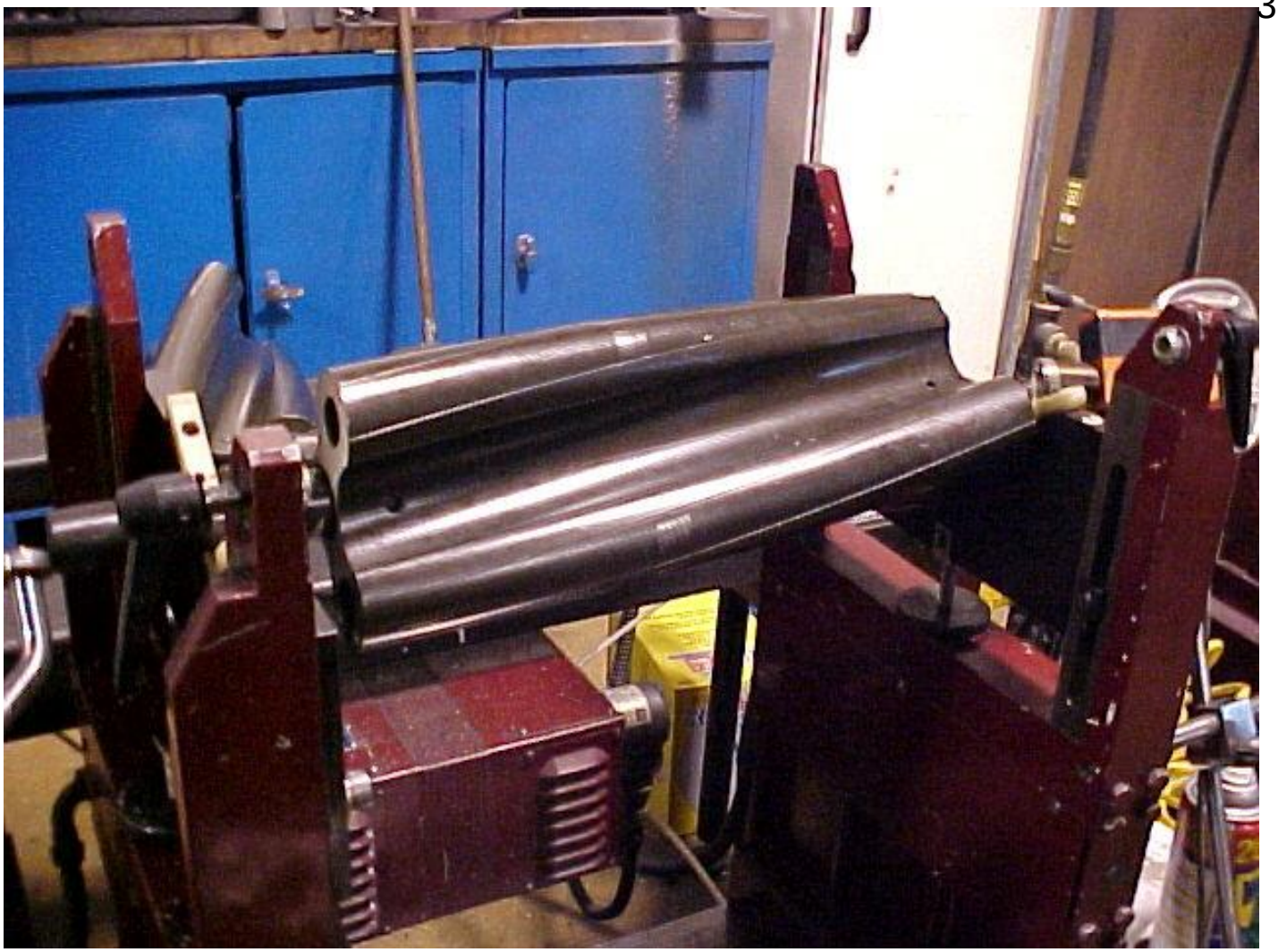


2 piece drive shaft

Note: I do not recommend taking on driveshaft balancing. 99% of shafts that come through the door will have issues that balancing can't fix. Bad joints, end pieces incorrectly clocked, bent as examples. You will spend more time with customer interaction and setup only to find it's a no go. If you have the expertise and equipment to build driveshafts go for it.



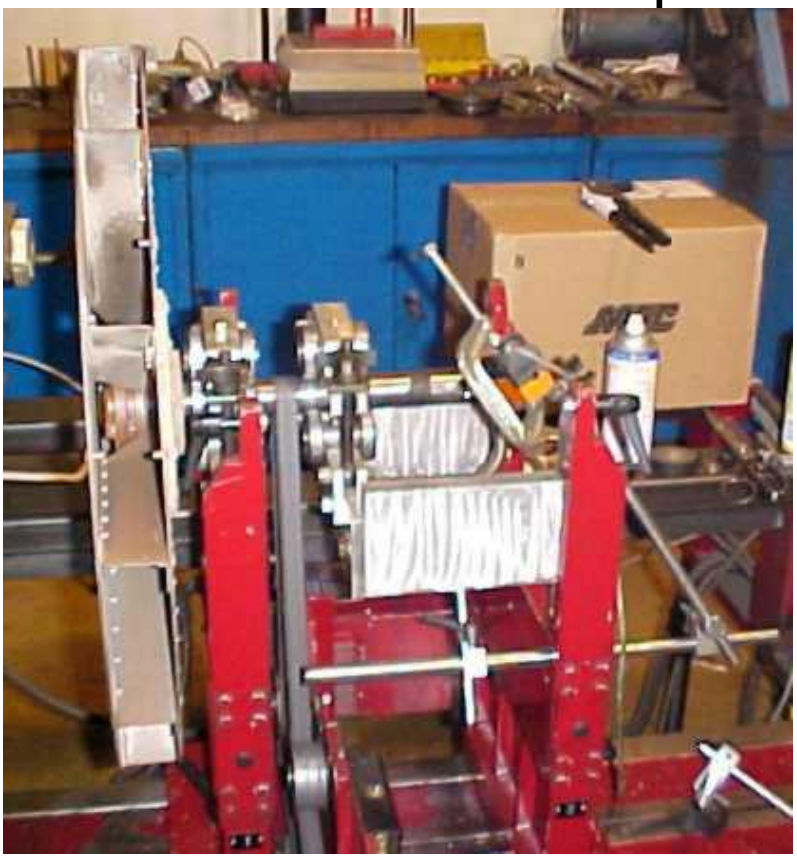
Dyno Coupler



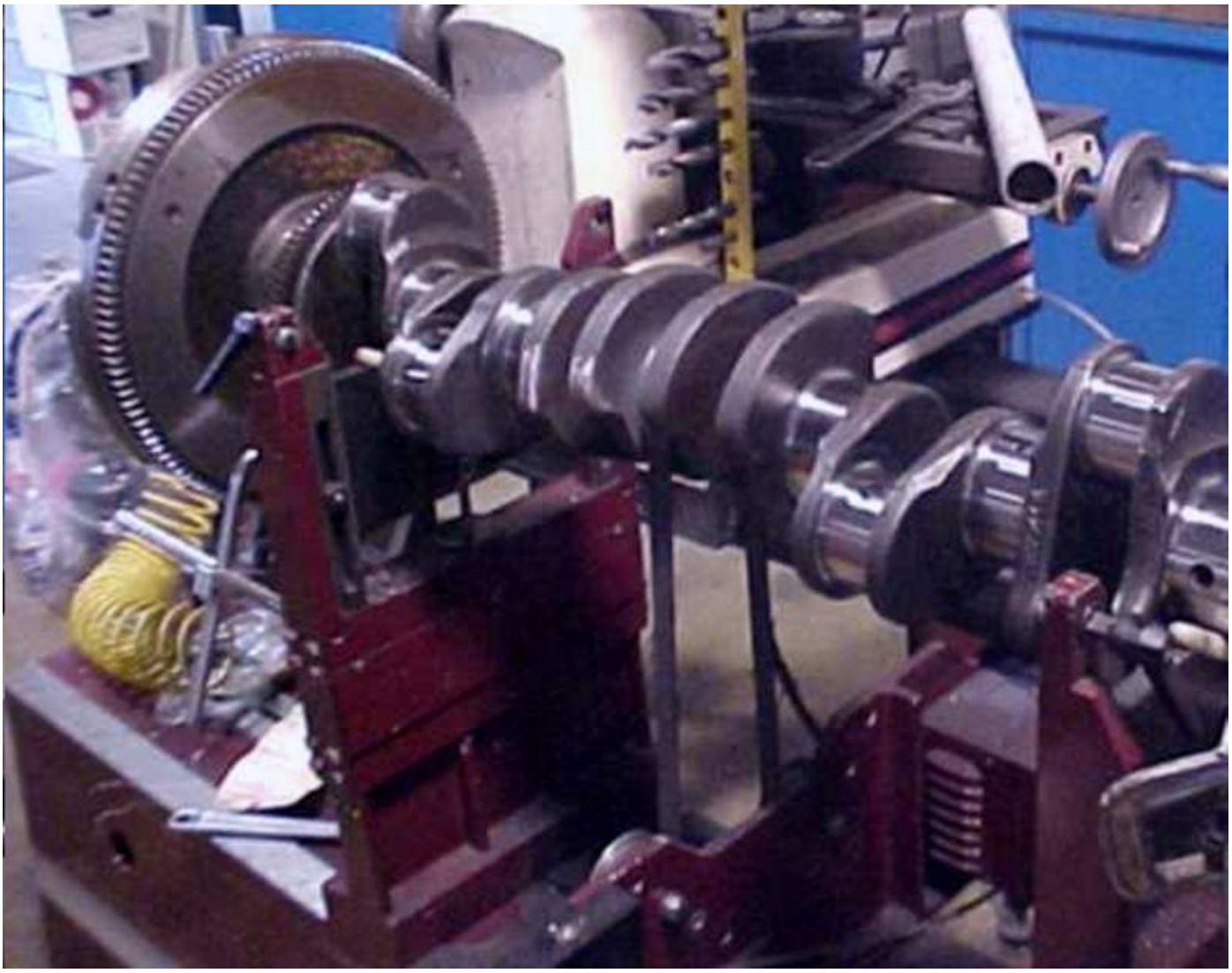
Supercharger Rotor



Good Sized Impeller



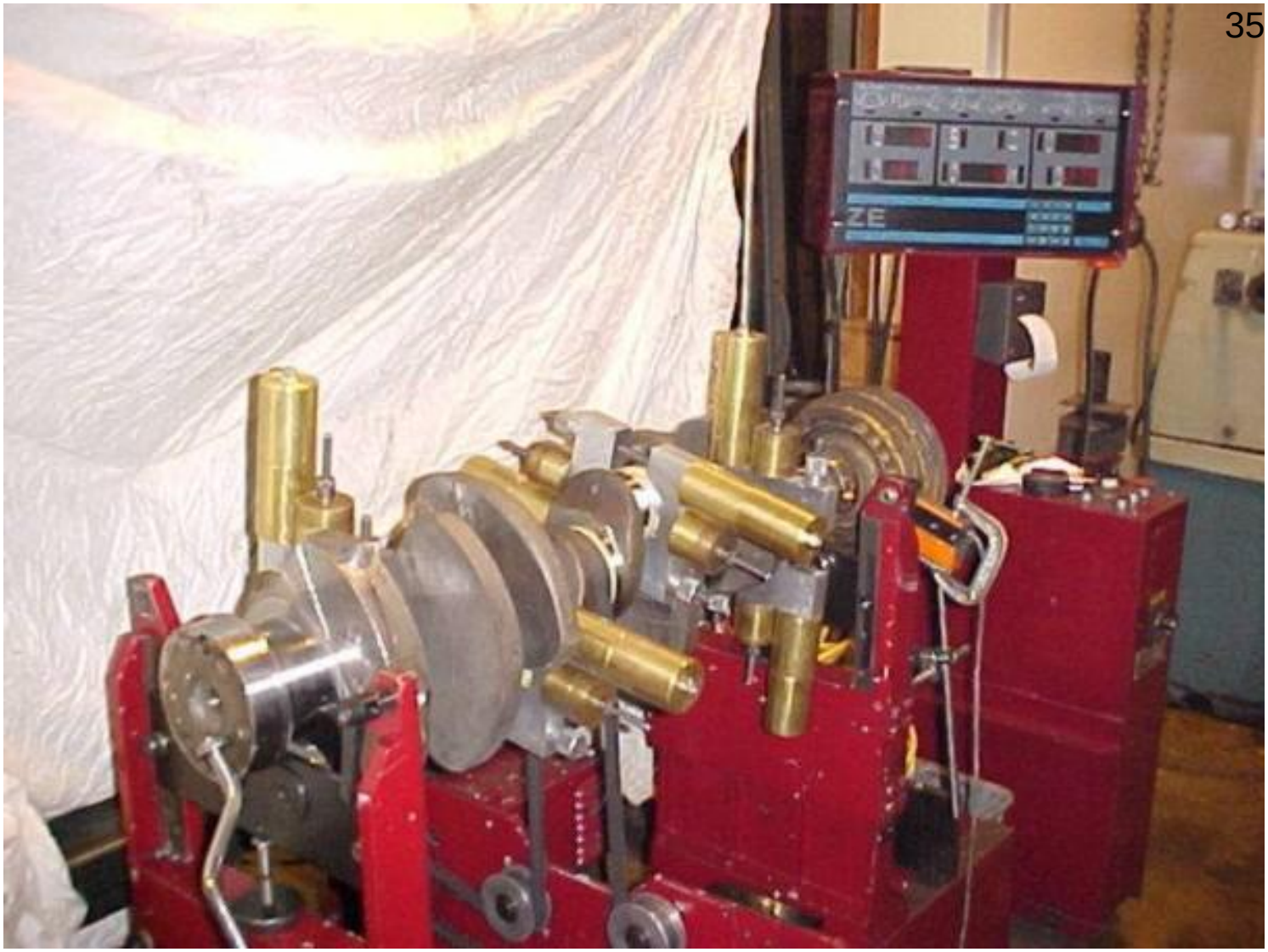
Here you can see the stanchion extension and the overhead roller tooling being used to hold this puppy in place.



John Deere inline



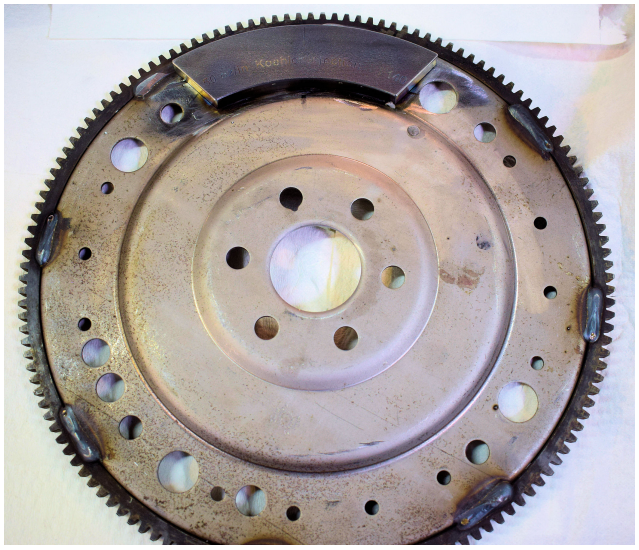
Wheel and Tire



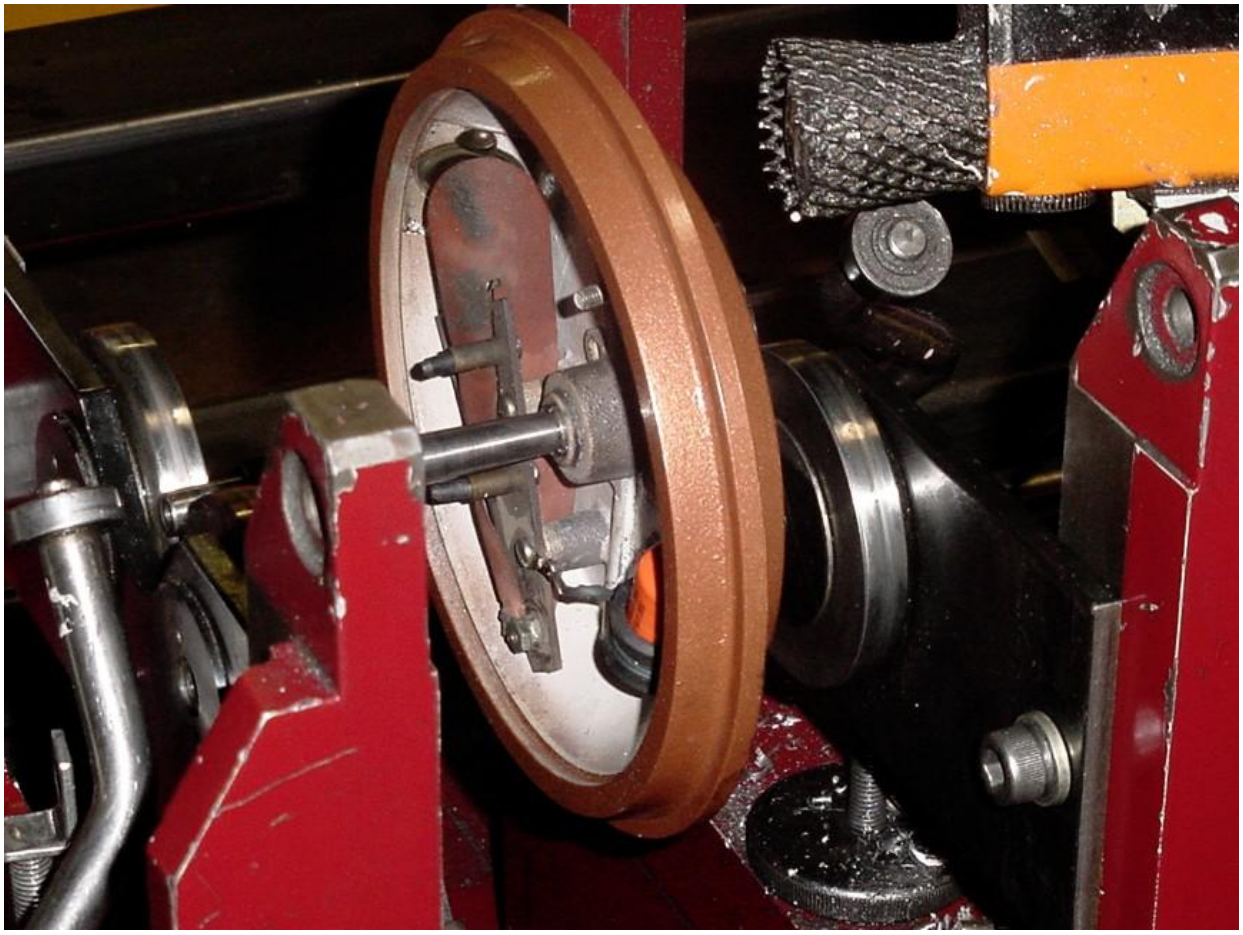
573 CI Case V8



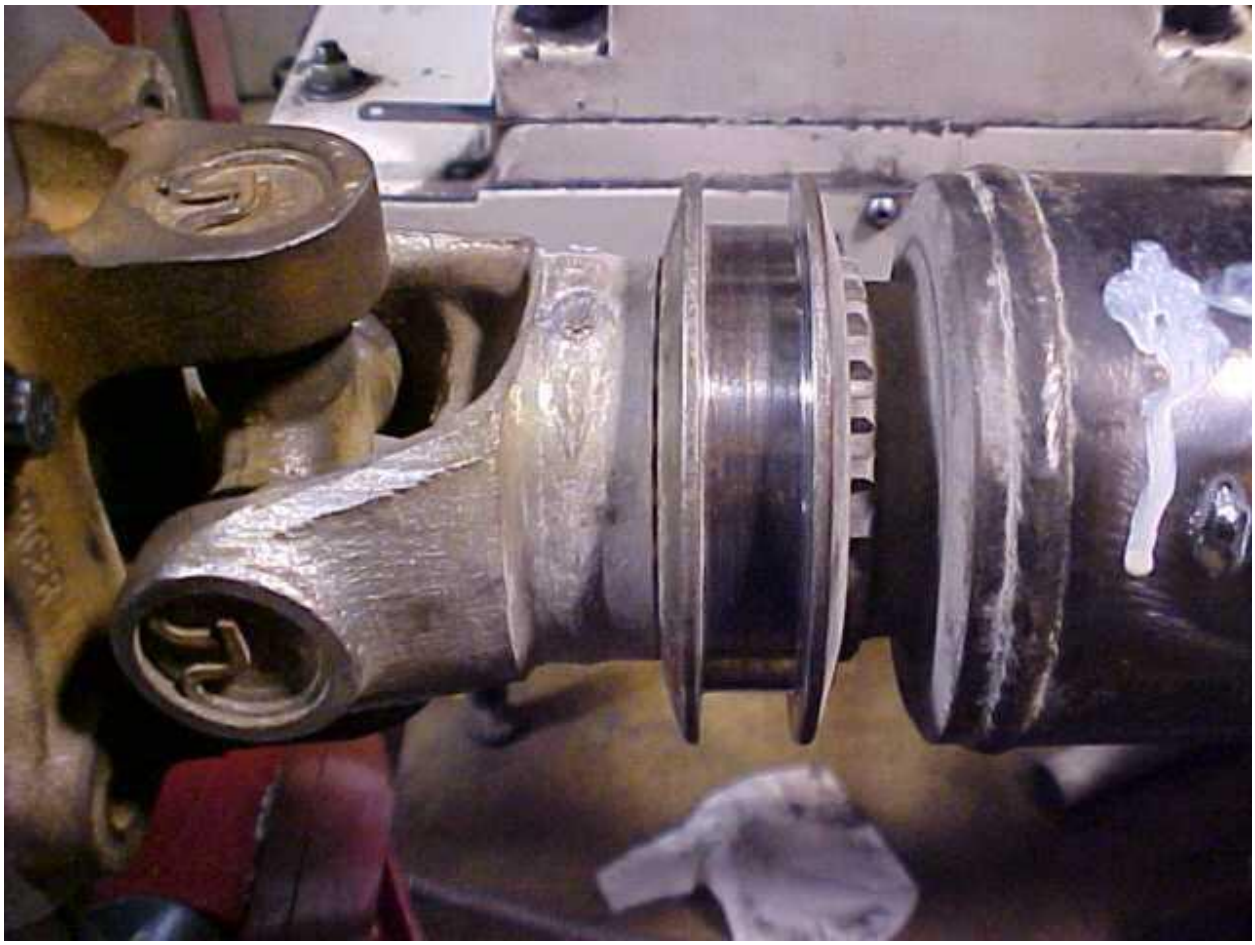
Flywheel converted from neutral balance to external for a V6 going in a Fiero



Ford converted from 28oz to 50 oz



The rotating part for a Sun Distributor machine



This is the working end of a Remco Driveshaft.

These are used by folks that flat tow a car behind a motor home. They shake real bad when it is locked up for driving the car around. The part you see uncouples the shaft so it does not damage the trans while towing. It was a real bear to figure out how to balance but ultimately I prevailed.

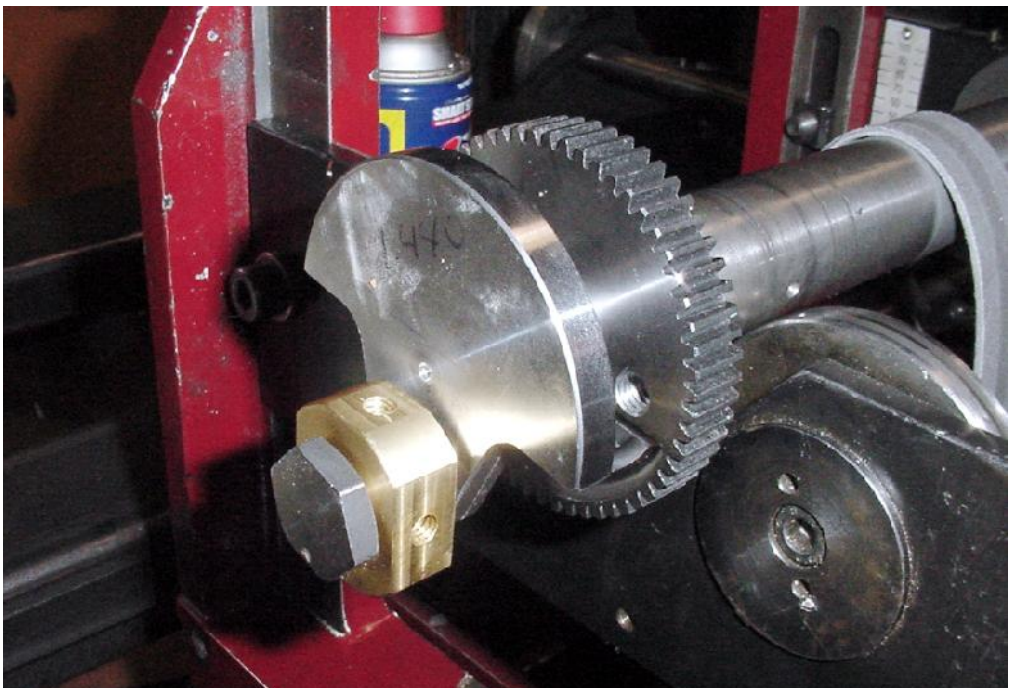


Little RC side hung crank



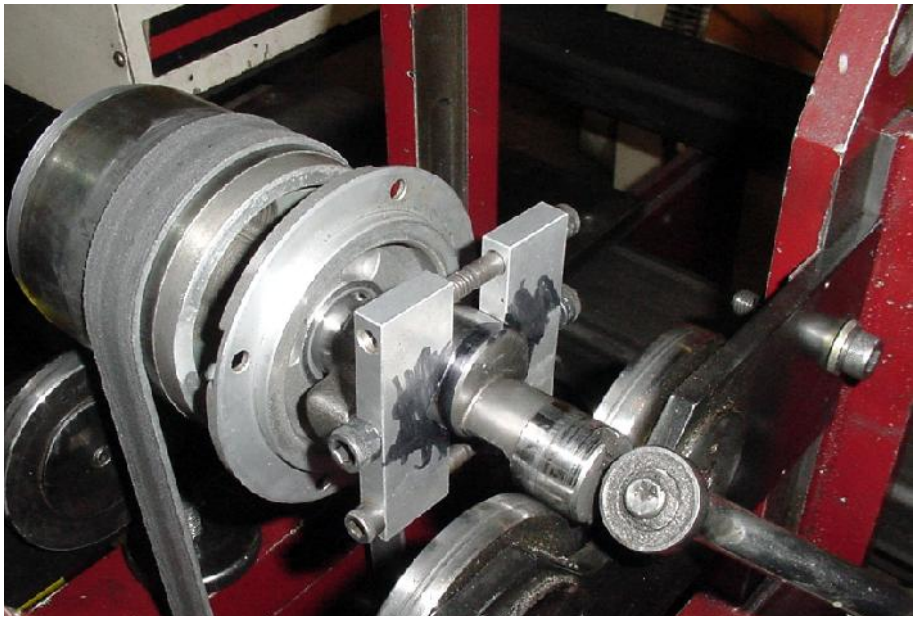


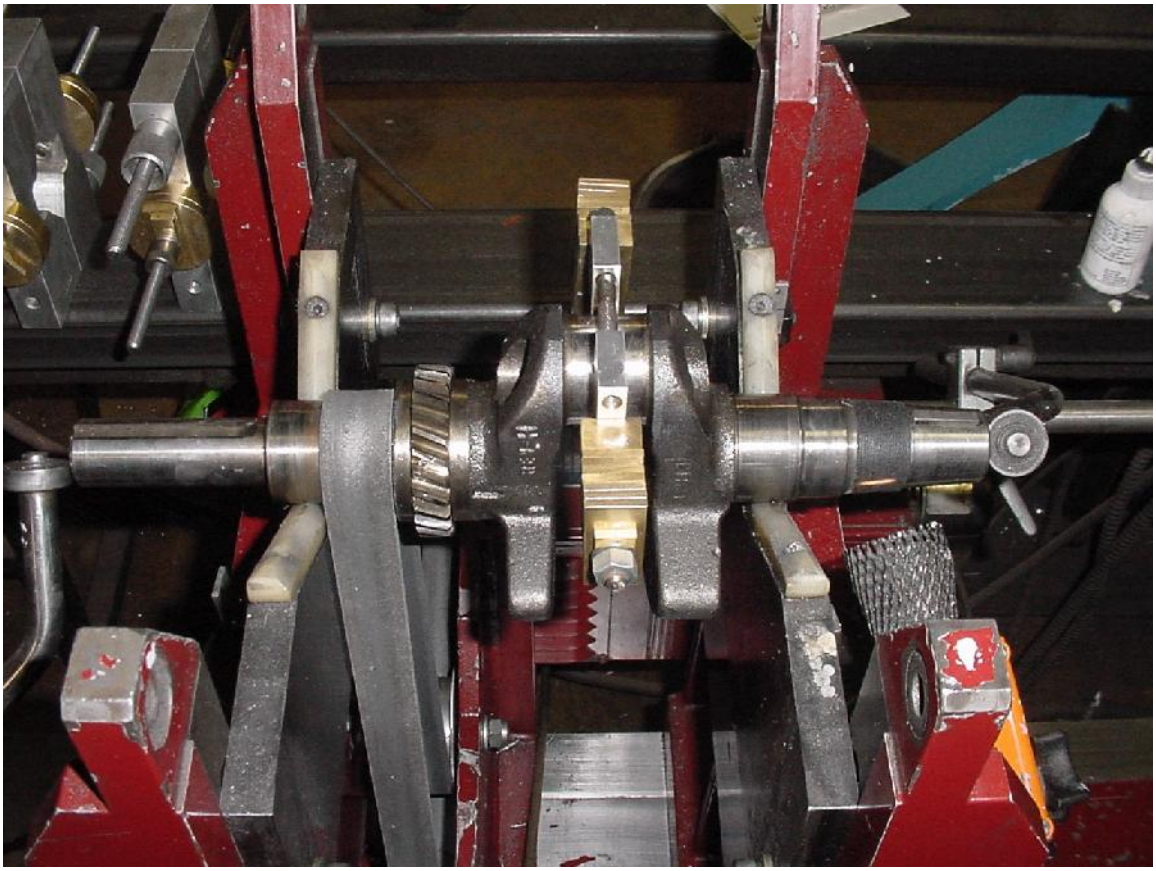
This was a R&D job. Back and forth from the company several times. The crank is driven by a small Honda engine. Everything was CnCd out by the company machinists with no thought to the balance. I figured out what it would take, made suggested design changes. Eventually we found the sweet spot where is was acceptable to Honda's warranty division.
R&D pays well if the customer understands up front.





This is what you find inside an AC compressor. This one is a fairly good sized one. Company had a wild idea to mount a larger armature in a particular model.
Big mistake. Sort of like shoving a BBC crank into a SBC.
These things are mated at the factory. Their hot rodding made the unit walk across the room.
Naturally, they threw out the original stu□ to I had no clue how they were supposed to be. Took my best shot on the first one and sent it back for evaluation. Said it was fine. Then they sent 24 more. Good pay but geez I hated these things after a while. It took a lot of time / work on each.





Kohler 1 cyl



Extra large hand fabricated impeller

But WAIT !
There's more

Other Stuff for Sale

Heavy Metal installation press

10 ton capacity. Activated with a foot hydraulic pump.
Also handy for other things. Head moves left and right making it easy to install multiple slugs. The plate the crank sits on moves in and out to align the slug with the arbor. 2 arbors & spacer blocks included. On wheels.

Cylinder seal has started leaking but still functions.

Only available when the balancer sells.
$3200.00



Wilton Square Belt Sander

A beast
For sanding of connecting rods or anything else.
with electric foot on/off control
Only available when the balance sells.
$1200.00





Coolest tool ever. ^^

The large shiny plate I made for a really big
diesel balancer.
Requires a hydraulic pump to run.. HF has them.
http://webster-industries.com/Damper_Puller.html

Only available after balance equpment sells. Like new.

$1000.00

Hall Toledo Orbital Valve Seat Grinder set. Model EJ
Incredibly Accurate. The Caddillac of seat grinders.

Nice cross section of pilots and stones to cover little stuff and all the performance heads.
Pilots are in excellent condition and tight fitting on the driver motor. Some are even new.
There is a selection of spare pilots that are missing pieces but still can be used in special cases.
The driver motor is in great shape and runs nicely.
$1000.00 plus UPS




UNITED STATES PATENTS
FOREIGN PATENTS
FRANCE-734156-751729
CANADA-329749-330019
ITALY - 312412
ENGLAND-398245-407186
GERMANY-1338325
ITS A HALL
VALVE SEAT GRINDER
MFD. BY
THE HALL MFG. CO. TOLEDO, OHIO
UNITED STATES OF AMERICA
VOLTS
CYCLES
UNIVERSAL MOTOR
MODEL
SERIAL NO
110
UNIV
EJ
19164
OFF
ON
AUG 25 2014


AUG 25 2014









End of seat grinder

Blind hole bearing puller
Used a couple of times for a project.
$40.00 plus UPS



6.0 Ford Diesel fan removal and installation tool

If you are changing a water pump, changing the belt etc this is the must have tool used to loosen or tighten the fan. I got my project done. It’s your turn.

$40.00 plus UPS



Heavy duty cast iron bodied polisher by US Electric.

Has new control box, cord and I had the motor gone through by Cox Electric.

I trim balanced it before they put it back together.
This one of those "they don’t make em this good any more" kind of machines.
A "mans buffer"

2 Horse, 3 phase, 3600 rpm, Double Arm 36" OAL x 1 1/4" shafts.

I run it off of a static phase convertor at this time.

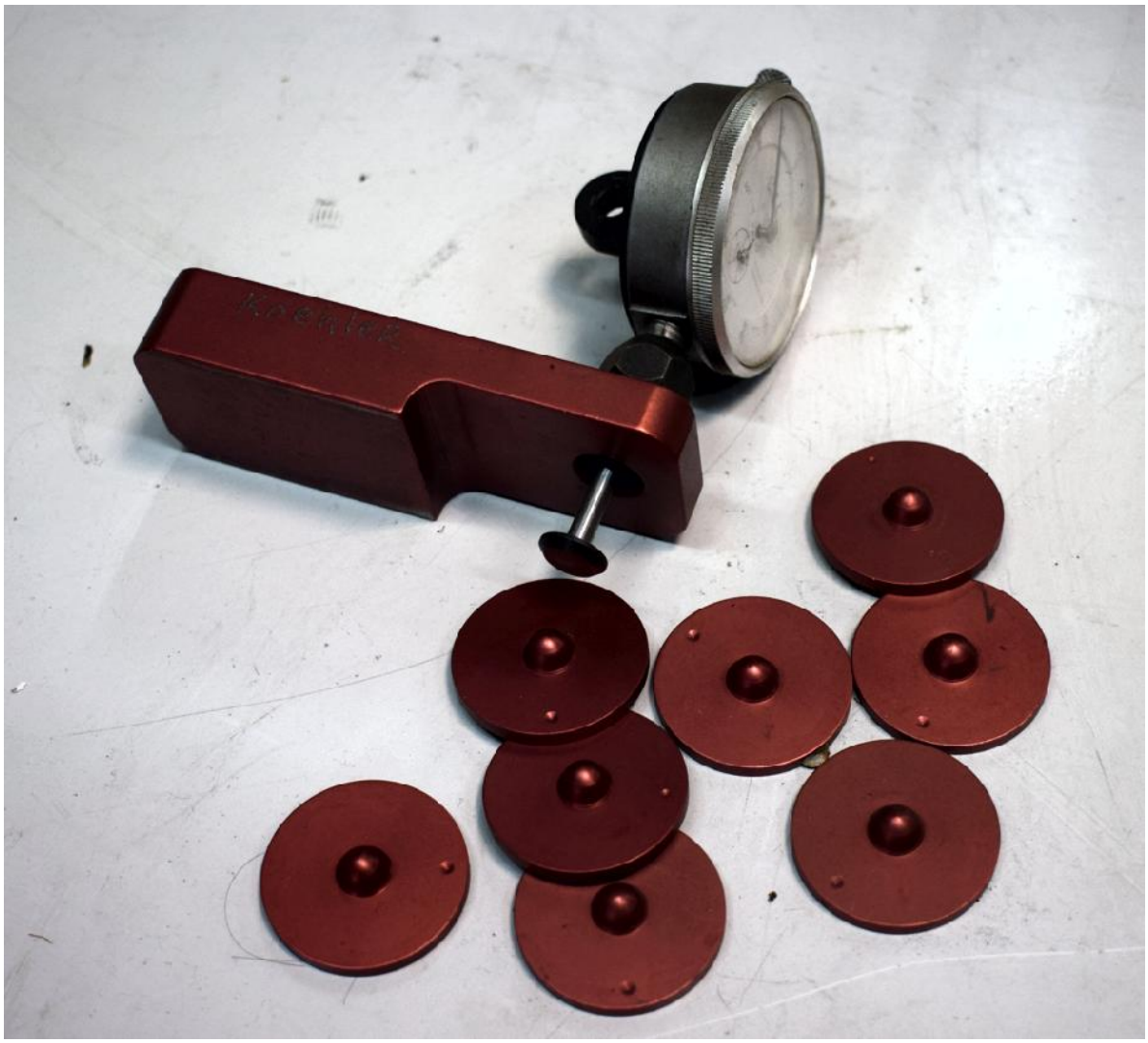
"Well Balanced" means it won’t walk across the room if not tied down.
Includes whatever buffs I have left.
I used this to polish pieces for my race cars and hot rods.
Not much you couldn’t do with the right buffs
$500.00 pickup only



Valve Seat height to deck measurement tool

When thousands count
This clever setup was made by Precision instruments.
How it works.
Pick 1 valve and affix a puck to the top of it. I used AB putty.
A good clay would also work if you don’t bump it.
Move that 1 valve from seat to seat and take measurements.
Find the lowest seat and machine the higher seats to match.
The little bump on the puck makes it work with any valve angle out there.
When done you can tap the pucks sideways to remove it.

$100.00 plus UPS



Head Stands

Goodson brand, 2 pair

$40.00 plus UPS



Crank Turn Sockets

1 Moroso Small block Chevy for degree wheel
1 Generic Ford with dual keyway

$50.00 for both plus UPS



Sunnen LBB-1810 Powerstroke Honing Machine

Photos below One owner, me. Excellent working condition. Gets tuned up regularly.
Loaded with extra tooling to hold all kinds of odd things.
Comes with full box of rod centering rings.
Has the normal scratches and rub marks from use.
Manuals included.
AG300 not included.
Honing oil not included.
Honing mandrels not included.
Pick up only.
Will take old school wet bench model in on trade as long as it functions.

Photos in following pages

Note that the oil pump motor got wonky. I have a submersible 120v pump in there to keep going until I get around to having the motor looked at. It's a common issue with these.

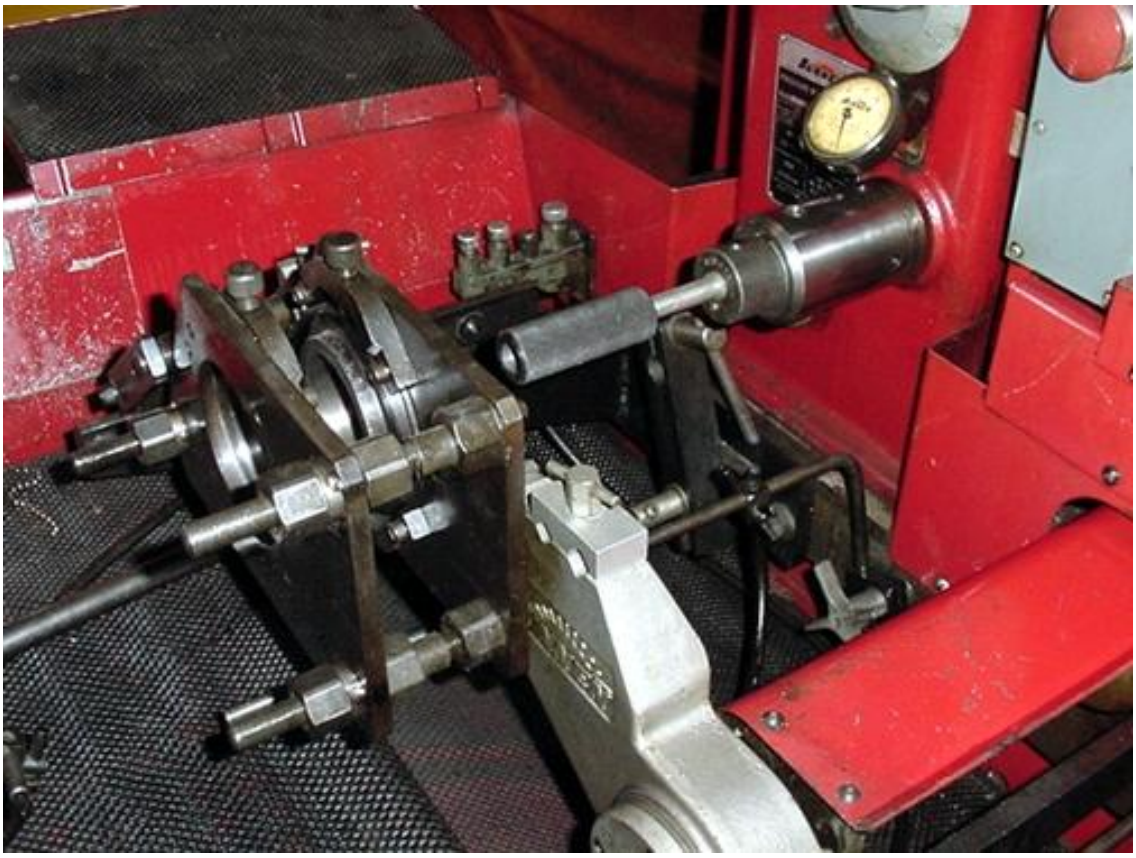
Honing by hand is slow, time consuming and hard on the hands.
Make your life better and more profitable. Buy this machine

With above: $3000.00
With AG300 Guage:$4000
With cabinet, mandrels and spare stones: $5000.00


SUNNEN





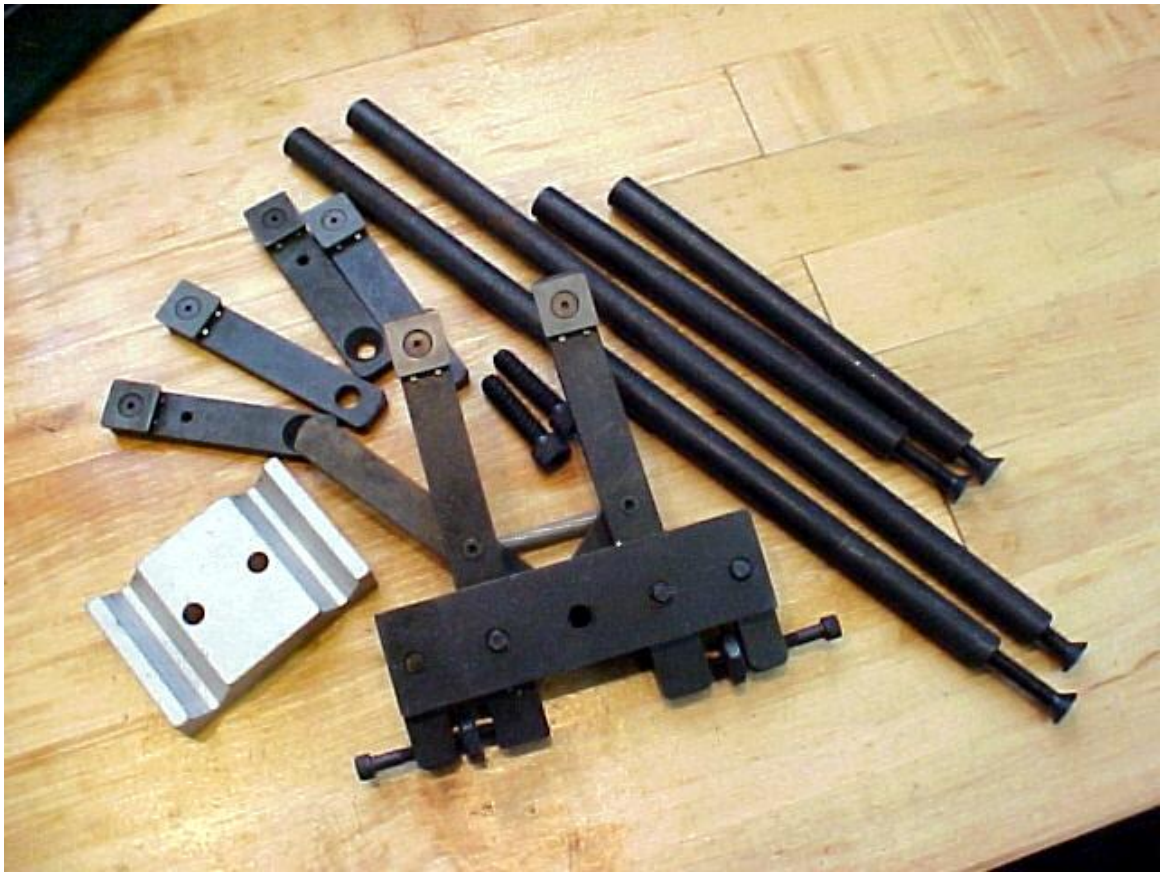





STROKE SPEED SELECTOR
ROTATION








5"
6"



End of 1810 presentation



Sunnen Diamond Hone size aduster turret
They do wear out.
Here is a new replacement.

$100.00





Sunnen GR3000
.056-.535 hole range
Reads in tenths
With 20+ Probes

$1200.00

SUNNEN

PROBE NUMBER	INCH RANGE	METRIC RANGE	PIN NUMBER
G-1055	.054 - .061	1.37 - 1.55	G-2037
G-1070	.059 - .075	1.50 - 1.90	G-2059
G-1080	.071 - .087	1.80 - 2.20	
G-1090	.081 - .096	2.05 - 2.45	
G-1100	.089 - .108	2.25 - 2.75	G-2089
G-1110	.098 - .118	2.50 - 3.00	
G-1120	.108 - .128	2.75 - 3.25	
G-1130	.118 - .138	3.00 - 3.50	
G-1140	.128 - .148	3.25 - 3.75	
G-1150	.138 - .157	3.50 - 4.00	
G-1160	.148 - .167	3.75 - 4.25	
G-1180	.165 - .189	4.20 - 4.80	G-2146
G-1200	.185 - .209	4.70 - 5.30	

PROBE NUMBER	INCH RANGE	METRIC RANGE	PIN NUMBER
G-1220	.205 - .228	5.20 - 5.80	G-2146
G-1240	.224 - .248	5.70 - 6.30	
G-1260	.244 - .268	6.20 - 6.80	
G-1280	.264 - .287	6.70 - 7.30	
G-1300	.283 - .307	7.20 - 7.80	G-2264
G-1320	.303 - .327	7.70 - 8.30	
G-1340	.323 - .346	8.20 - 8.80	
G-1360	.343 - .366	8.70 - 9.30	
G-1380	.362 - .386	9.20 - 9.80	
G-1400	.370 - .417	9.70 -10.30	G-2370
G-1440	.409 - .457	10.40-11.60	
G-1480	.449 - .496	11.40-12.60	
G-1520	.488 - .535	12.40-13.60	

L-G-3000





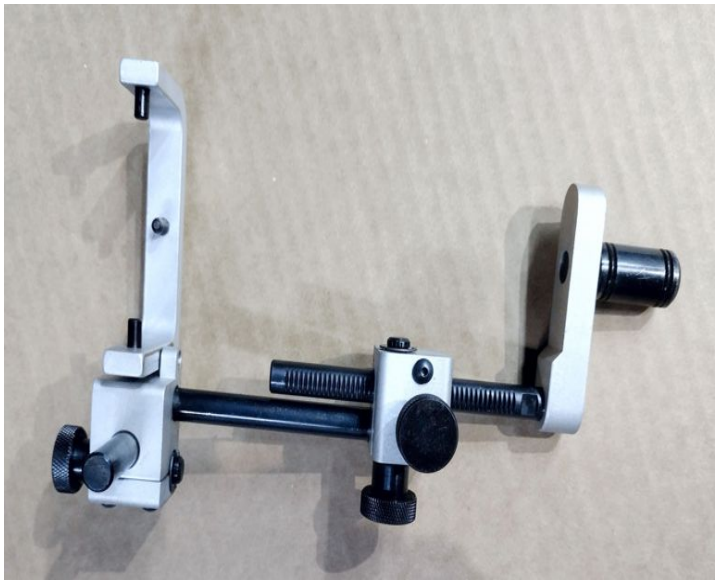
Sunnen CF-502

Master dial indicator setting tool
0-2" capacity

Works with the 3000, 4000 and
6000 series Sunnen Indicators

$600.00





Sunnen CF-540

Dial gage setting adapter
Adapts the GR-3000 probe to the CF-502 master setter.

Centers gage probes between parallel reference surfaces on CF-502 Setting Fixture. Serves as an “extra pair of hands” to help in nulling the gage on both the horizontal and vertical axis. Assures fast, accurate setup of the gage.

$400.00



Shown with CF-502 Setting Fixture.

Package deal

The above 3 Sunnen tools.CF-502, GR-3000 and CF-540 $2000.00

BHJ BBC Bolt hole blueprint plate

When you angle mill a BBC head a lot you can lose track of the bolt hole centers location.
This plate allows you to locate and drill/mill the holes back in the proper location.

Aftermarket heads aren't too bad but oem can be all over the place.
If you ever used head studs and the head doesn't go on and off easy it could be the block but the heads seem to be the worst offenders.
This plate allow you to machne/drill/mill correct the head holes.

$200.00 plus UPS





Maritool Floating Tap Holder
NEW Made in the USA
This tool holder accepts all ER32 collets
1 inch straight shank for mill or lathe
Approximately 5/16 compression and extension
Ideal for tapping
All critical tool holder surfaces precision ground
Made from alloy steel hardened to 54 - 56rc
A dimension-- 1.00 dia. straight shank
B dimension-- 2.550 shank length
C dimension-- 3.420 gage length
D dimension-- 1.975 body diameter
E note-- collet nut is 1.940 dia. and uses wrench part number ER32-WRENCH
Wrench is not included. Link is provided below
Not coolant thru capable
MariTool Part# is C1.0-TER32
$180.00



Kaiser 310.511 boring bar with extensions, insert holders and adapter

1- 310.511 boring head. Range is from 2.09-3.740"
1- 626.151 insert holder. Range 2.09-2.760"
1- 626.152 insert holder Range 2.56-3.230"
1- 11.331.550 2.365" extension
1- 11.331.551 3.550" extension
1- BT40 1.750" Tool Holder
$900.00



NEW
Kaiser boring extension 10.331.661
Cat # 5027
4" extension length.
$160.00



BT40 ER 16 collet holders w 100mm length (4")
Like new.
$100.00 for all



used, good
3 Nikken BT40 Tool holders with pull studs
2 of BT40-DW3-105
1 of BT40-DW4-120
$30.00 for all



used, good
BT40 tool holders with pull studs
Set of 4
2 of 3/8"
2 of 1/2"
$40.00 for all



used, good
BT40 tool holders with pull studs
Set of 4
3/16", 1/4", 5/16", 3/8"
$40.00 for all



Back Cut Chamfer Tool
Do you have a through hole that needs a chamfer on the side you can't access with your mill?
This tools does the job.
1: insert shaft in collet
2: Lower shaft through hole
3: Attach cutter to shaft via twist turn.
4: pull up z to machine the chamfer
Like new. $60.00





Used but in great condition.
ISCAR Indexable Boring Bar
#BBS 12-3
3/4" diameter with flats
Length: 7-1/8" (shortened from the original 10")
Min Bore: .840
Inserts: 32 series, triangle, screw
Lead angle: 91 degrees
Rake: Neutral
Center to cutting edge: .400
FWIW: new cost: $175.00$60.00



Port Tooling
-3, -4, -6, -8 and unidentified
$300 for all



Thread Go-No go gages
5/16-18 3B
5/16-24 3B
3/8-16 3B
3/8-24 3B
7/16-14
2B7/16-20 3B
9/16-18 3B
3/4-16 3B
7/8-14 3B

$160.00

K-Line Guide Liner Tooling
All tooling is very low use. Will not disappoint



KL8565CB
11/32 boring
for use with seat centering cones

$60.00



KL8570
3/8 boring
for use with seat centering cones

$60.00



KL9962
11/32"
Bronze Bullet auto installer

$60.00



KL9963
3/8"
Bronze Bullet auto Installer

$60.00



K-Line boring Centering cones
KL9916 1-3/4"
KL9918 2"
KL9919 2-1/4"
KL9920 2-1/2"

$50.00 each

Useful info:
Approximate Seat diam covered.
1-3/4>> 1.625 -1.75"
2>>1.75-2"
2-1/4 >> 2 - 2-1/4"
2-1/2 >> 2-1/4 - 2-1/2"



K-Line liner Ball Broaches
KL5856 .342
KL5857 .3435
KL5858 .3445

$40.00 each

K-Line Bronze Reamers
KL1119NB .341
KL1124NB .371

$40.00 each

KLine 5/16 guide knurler

$50.00



K-line ball broach driver
KL5759

$40.00



K-line Misc used reamers
Good
3/8" Knurler
Reamers:
.371
.372 (2)
.373

$60.00 for all



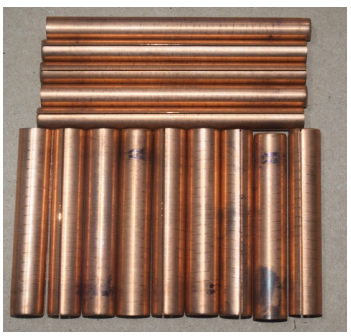
Guide top Cutter
3 blade insert style
4 different guide pins

$60.00



Bronze Liners
3/8 x 3.13" Bullet style
set of 13

$13.00



Bronze Liners
11/32 x 3"   Standard style
Set of 14

$14.00



Bronze Liners
5/16 x 3.13"   standard style
Set of 13

$13.00

End of K-Line tools



Spring height gauge
1.6-2.2" range
New

$40.00



Stainless Spring Height Gauge
Nice

1.7 -2.250" range

$60.00



Comp Cams Seals
#506
16 pieces
11/32 x .494 guide Diameter

$30.00



Comp Cam Seals
#529
15 pieces
11/32 x .530 guide diameter

$25.00



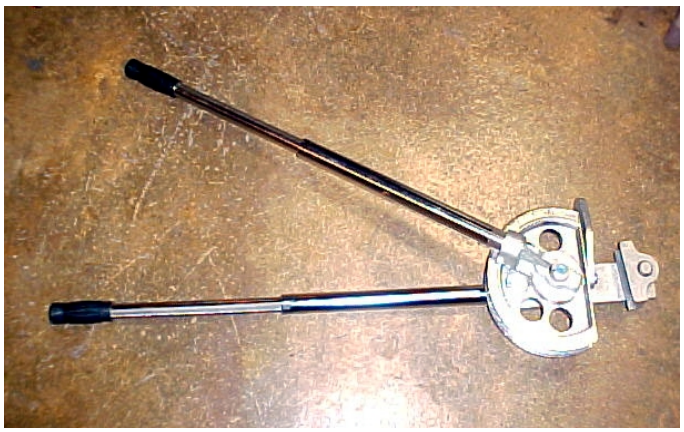
Sealed Power Seals
ST2005
16 pieces
5/16 x .500 guide Diameter

$30.00



Heavy Duty Seal Gripper Pliers
Serrated tangs for secure grip
Like new
Goodson or K-line (i forget)

$40.00



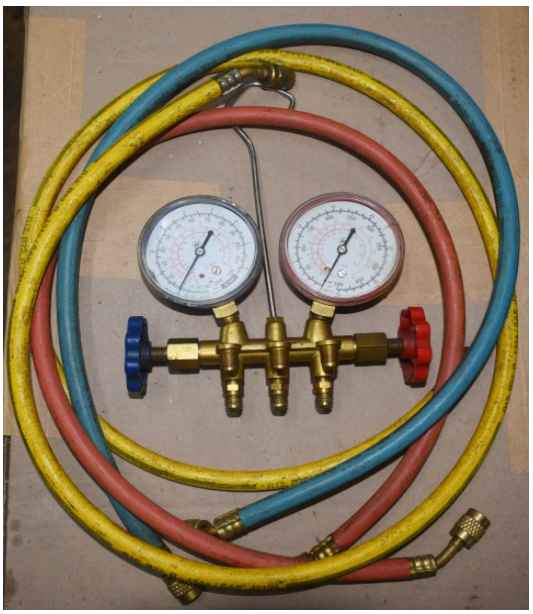
Imperial 1" OD Tubing Bender
3.5" radius
For copper and aluminum

$100.



Associated. Model 6080a
1-36 cells
Good for charging race car battery packs all at once.
Manual included

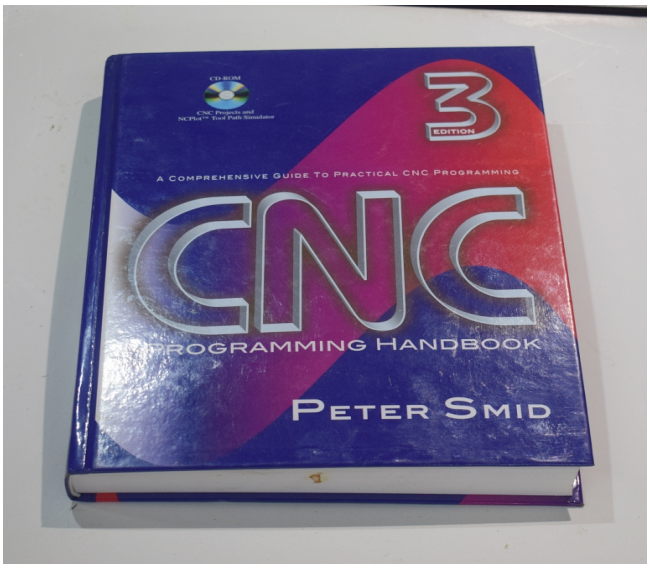
$200.00





Inter Dynamics (ID) AC Gage Set
R-12, R22, R-502

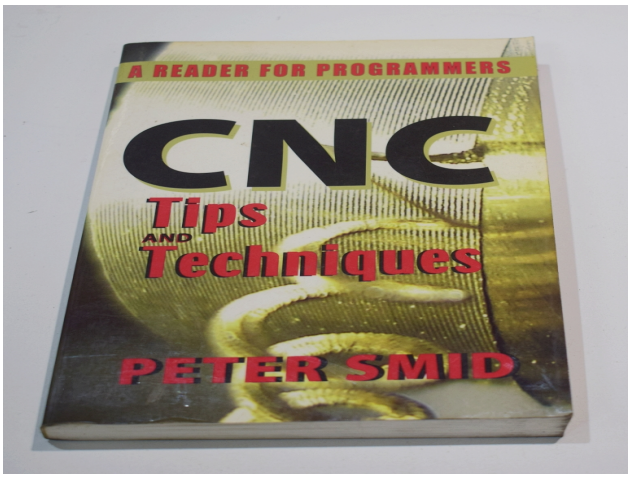
$30.00



Hardcover, 540 pages,

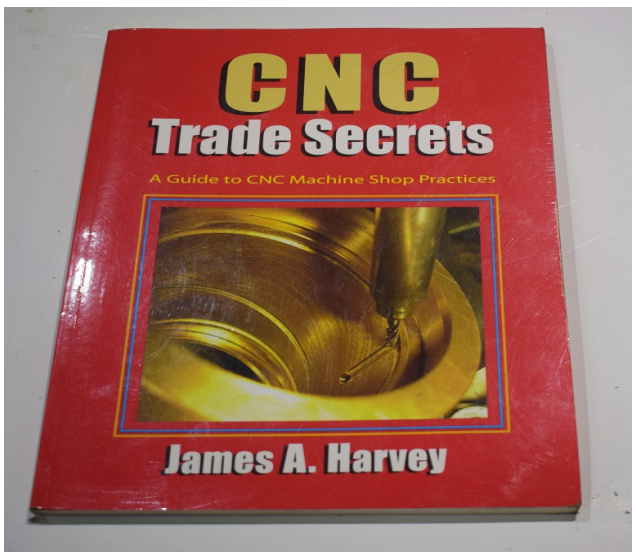
More info: https://www.amazon.com/Programming-Handbook-Third-Peter-Smid/dp/0831133473?s=books

$20.00



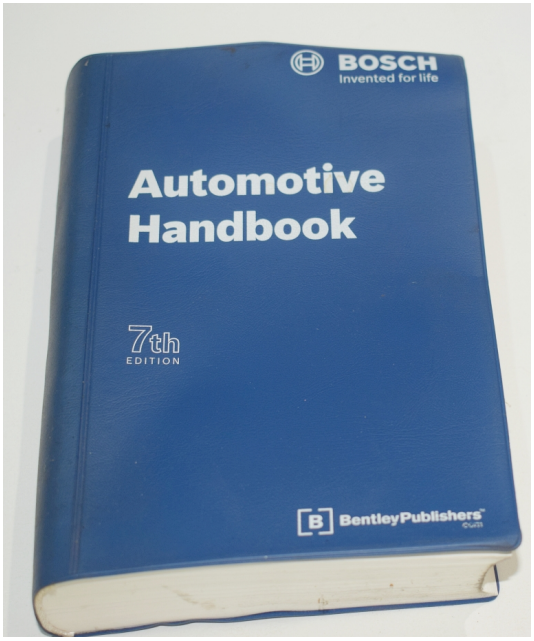
By Peter Smid,
Paperback, 238 pages,
More info: https://www.amazon.com/CNC-Tips-Techniques-Reader-Programmers/dp/0831134720

$20.00



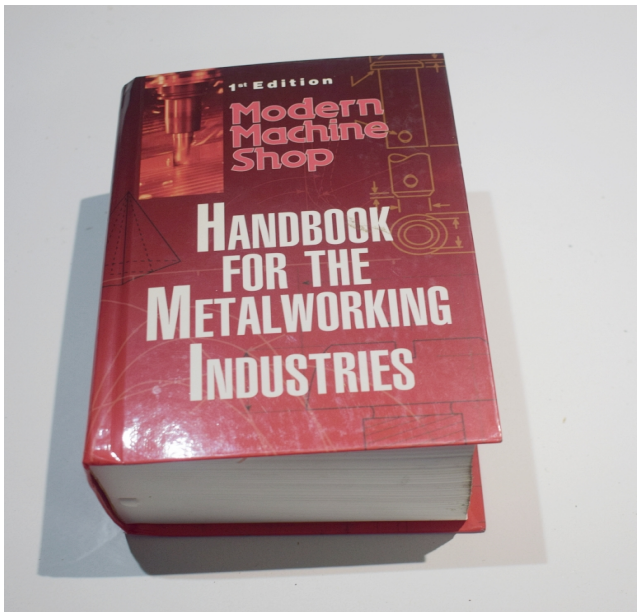
Paperback,
148 pages,
More info: https://www.amazon.com/CNC-Trade-Secrets-Machine-Practices/dp/0831135026?s=books

$20.00



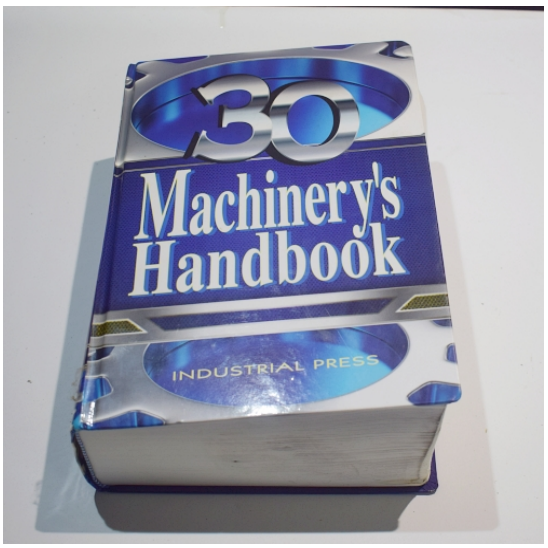
Bosch Automotive Handbook
Plastic type cover,
1192 pages,
More info than you asked for.

$30.00



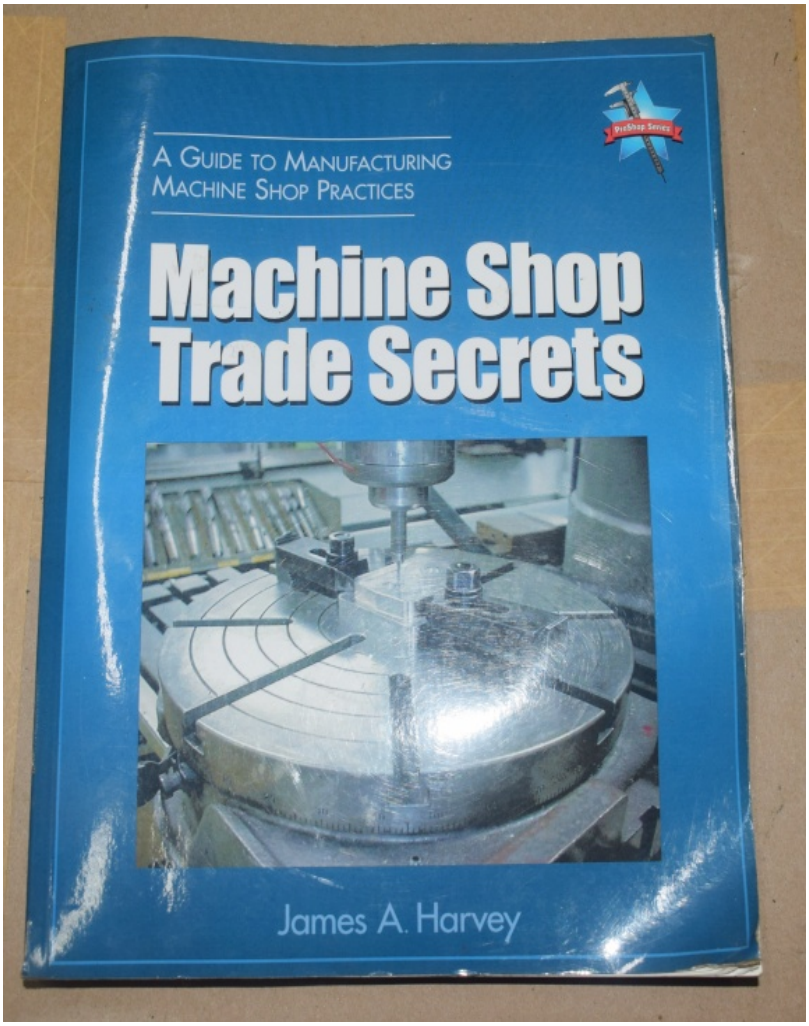
By Modern Machine Shop
Hard cover, First Edition,
2347 pages,

$40.00



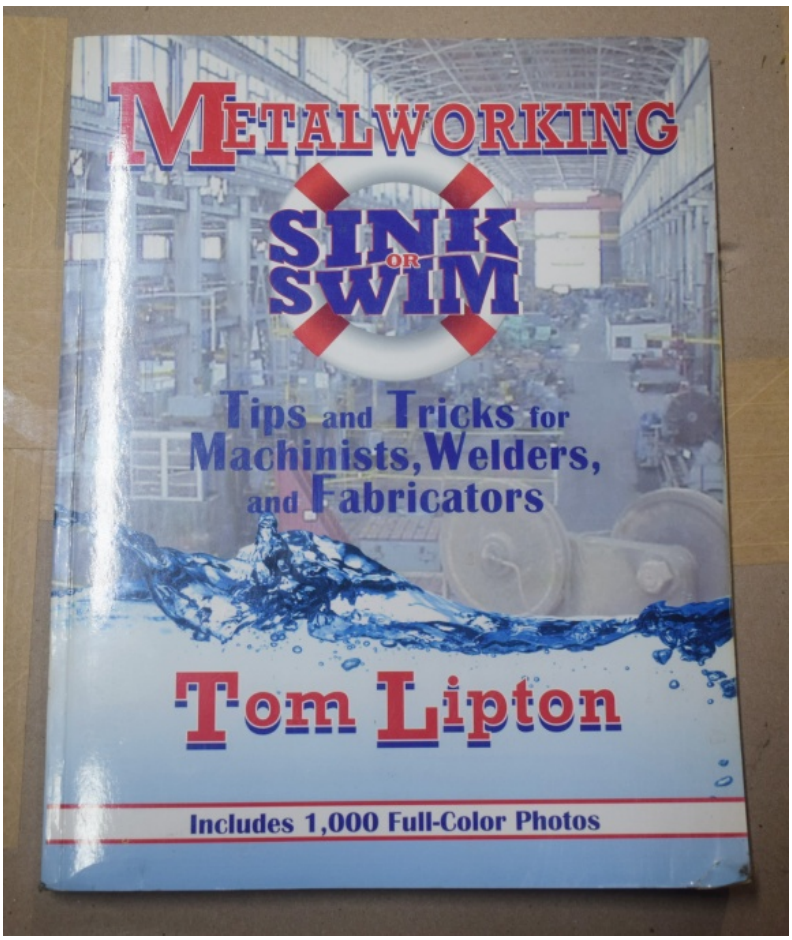
Hardcover edition.
2883 pages

$50.00



Machine Shop Trade Secrets:
A Guide to Manufacturing
Machine Shop Practices
300 pages

$20.00



Metalworking Sink or Swim:
Tips and Tricks for Machinists,
Welders and Fabricators
300 pages

$20.00