



BRUNETTE MACHINERY

GRIZZLY MILL HOG

Rotor Bearing Replacement Instructions





ROTOR BEARING REPLACEMENT

Brunette Machinery has preassembled bearing kits with all components required to complete a full replacement. They should be on site prior to beginning the service. If required, they can be transported to your location ASAP should an incident occur.

REMOVING ROTOR BEARINGS

- Remove bearing housing bolts.
- Raise the rotor up at each side by 1/16" so the bearing housing rotates freely.
- Block rotor in position by welding temporary steel brackets, (flat bar or key stock) to side of rotor and bottom frame.





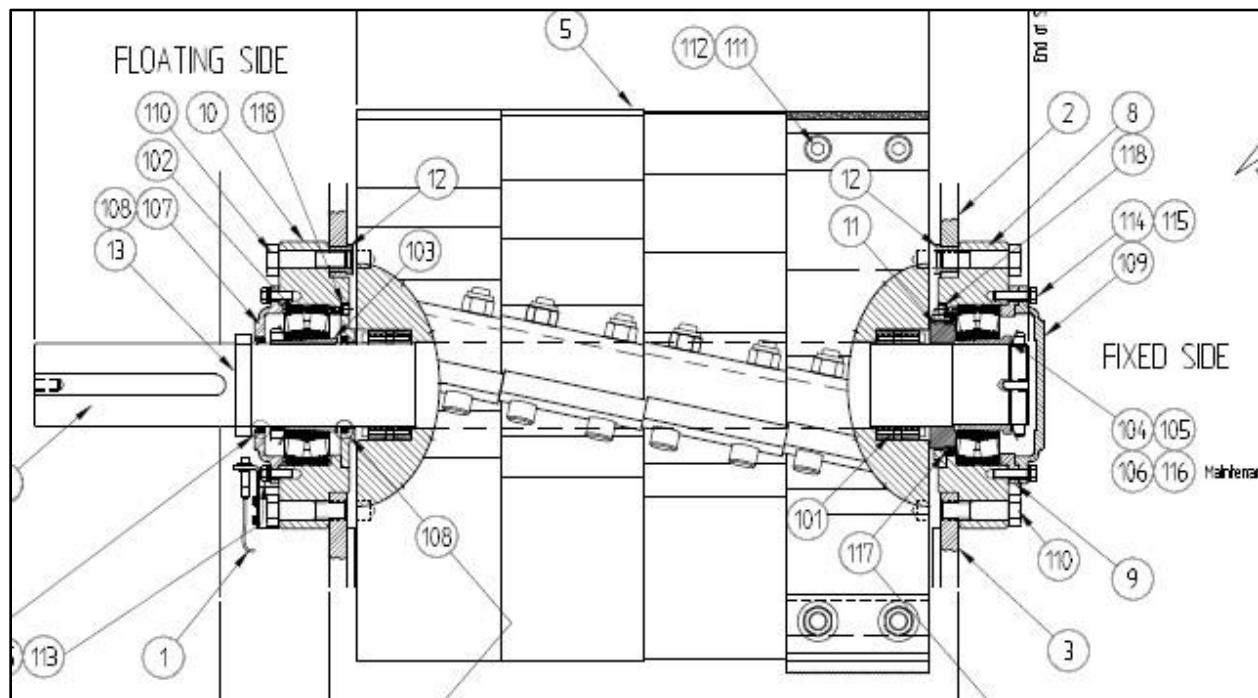
REMOVING ROTOR BEARINGS (continued)

FIXED BEARING – see Drawing #C-20110632 Rev A on Page 4

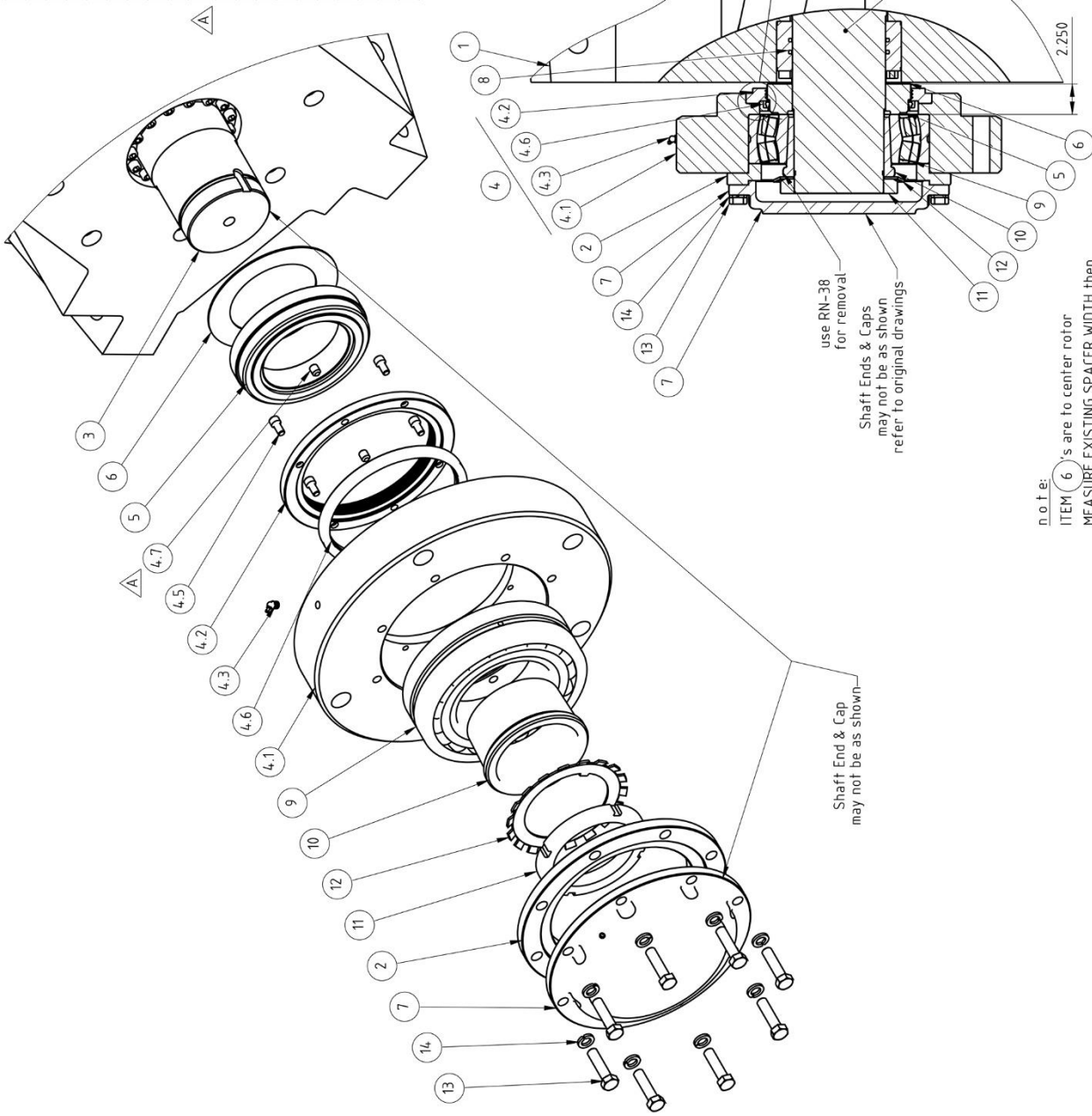
- Remove bearing cap, clean off all grease residue.
- Remove locknut holding withdrawal sleeve.
- Use RN-38 withdrawal nut to loosen the withdrawal sleeve.
- Remove bearing housing with bearing and withdrawal sleeve from shaft.
- Push bearing out of housing using jacking holes in back of housing.
- Clean bearing housing and check for wear, replace with new as needed.

FLOATING BEARING - see Drawing C-20110633 Rev A on Page 5

- Remove bearing cap, clean off all grease residue.
- Loosen tapered sleeve nut and press tapered sleeve inwards.
- If unsuccessful use a cutting torch to cut bearing rollers out. This will allow inner race to expand and free up tapered sleeve.
- Remove bearing housing with bearing and tapered sleeve from shaft.
- Push bearing out of housing using jacking holes in back of housing.
- Clean bearing housing and check for wear, replace with new as needed.



ITEM	DESCRIPTION	QTY	COMMENT
1	ROTOR WELDMENT, Continuous Spiral	1	
2	ROTOR FIXED BEARING CAP SPACER	1	40110509
3	ROTOR SHAFT	1	
4	BEARING HOUSING, FIXED, SEAL	1	40110713
4.1	ROTOR BEARING HOUSING for INSERT SEALS	1	40110747
4.2	INSERT for FIXED BEARING with SEAL	1	40110748
4.3	ALEMITE #1629-B GREASE FITTING 1/4NPTM 65 Deg	1	
4.4	ANSI #1/2-13NC x 1" Lg SHt Hd Hex Capscrew, Gr5-ZNC	1	50011106
4.5	ANSI #1/2-13NC x 1" Lg SHt Hd Hex Capscrew, Gr5-ZNC	4	50011107
4.6	CLIPPER #JM-1025-16586-LUP SEAL	1	JM1025-16586
4.7	ANSI #5/8-11NC x 3/4" Lg Soc Hd SETSCREW, CUP P1, BLK	2	50011109
5	ROTOR FIXING SPACER For Model #4800	1	40110715
6	ROTOR SPACER SHIM	2	40110751
7	MEITHER #KS-538-CL Bearing Cap with Closed End	1	KS-538-CL (7001-3501)
8	B-LOC #B192615 LOCKING ASSEMBLY, B115 x 6 15/16" Dia	1	7001-0012
9	SKF #R22238CKW33 C3 SPHERICAL ROLLER BEARING	1	7001-3104-C3
10	SKF #SK38 x 170mm Dia WITHDRAWAL SLEEVE	1	7001-3117
11	SKF #AN 34 LOCKNUT	1	AN-34 (7001-3118)
12	SKF #W 34 LOCKWASHER	1	W34 (7001-3119)
13	ANSI #3/4NC x 3" Lg HEX BOL T, Gr5-ZNC	8	50010195
14	ANSI #3/4 Dia LOCKWASHER, Helical Spring, Gr5-ZNC	8	50010395



NOTE ORIENTATION
to allow grease to purge

FIXED END BEARING

note:
ITEM (6) is to center rotor
MEASURE EXISTING SPACER WIDTH then
SUBTRACT 2.25" (new spacer width)
divide total by .06" to DETERMINE
how many SHIMS are required

Weight: 17134.64 lbs

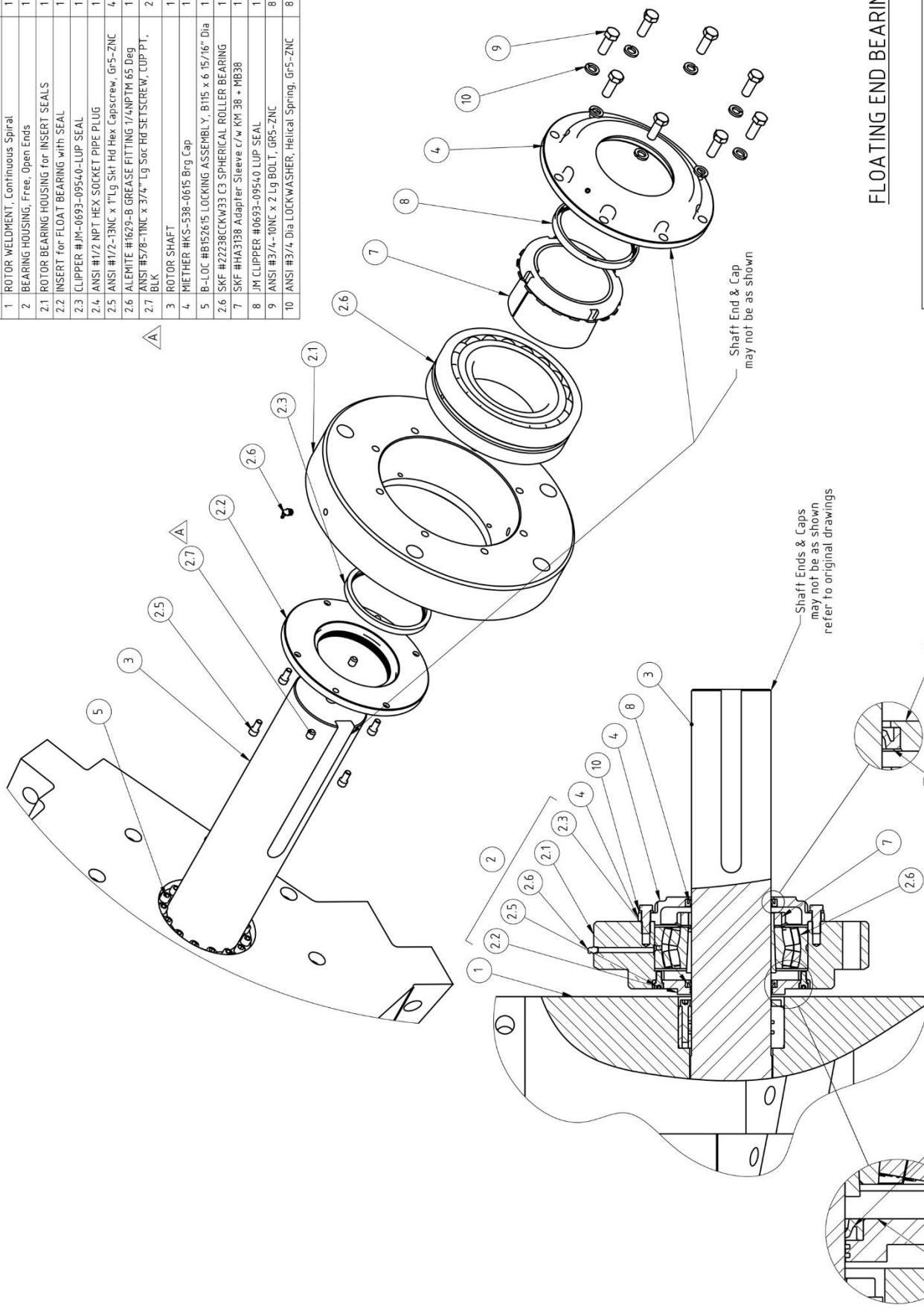
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES UNLESS OTHERWISE SPECIFIED:
FRACTIONAL DIMENSIONS: ±0.005
DECIMAL DIMENSIONS: ±0.005
BREAK ALL SHARP EDGES.

BRUNETTE MACHINERY Co Inc

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BEARING SEALED HOUSING ASSEMBLY - FIXED	SCALE: 1:6
DRAWN BY: tegart	CHECKED BY: C
DATE: 17-10-11	SHEET: 20110632
	REV: 1 of 1

REV	BY	DATE	DESCRIPTION
A	tegart	18-01-19	ADDED PUSHER SCREWS

ITEM	DESCRIPTION	QTY	COMMENT
1	ROTOR WELDMENT, Continuous Spiral	1	
2	BEARING HOUSING, Free, Open Ends	1	4010130p1
2.1	ROTOR BEARING HOUSING for INSERT SEALS	1	401007A7
2.2	INSERT for FLOAT BEARING with SEAL	1	4010750p1
2.3	CLIPPER #JM-0693-09540-LUP SEAL	1	70011141
2.4	ANSI #1/2 NPT HEX SOCKET PIPE PLUG	1	5001106
2.5	ANSI #1/2-13NC x 1 1/4 Skt Hd Hex Capscrew, Gr5-ZNC	4	5001107
2.6	ALEMITE #1629-B GREASE FITTING 1/4NPTM 65 Deg	1	
2.7	ANSI #5/8-11NC x 3/4" Lg Sct Hd SETSCREW, CUPPT, BLK	2	5001109
3	ROTOR SHAFT	1	
4	MIETHER #KS-538-0615 Brg Cap	1	7001-3101
5	B-LOC #B152615 LOCKING ASSEMBLY, B115 x 6 15/16" Dia	1	7001-0012
2.6	SKF #22238CKW33 C3 SPHERICAL ROLLER BEARING	1	7001-3104-C3
7	SKF #HA3138 Adapter Sleeve c/w KM 38 + MB38	1	7001-3103
8	JM CLIPPER #0693-09540 LUP SEAL	1	7001-1141
9	ANSI #3/4-10NC x 2 Lg BOLT, GR5-ZNC	8	5001091
10	ANSI #3/4 Dia LOCKWASHER, Helical Spring, Gr5-ZNC	8	5001095



FLOATING END BEARING

BRUNETTE MACHINERY Co Inc

GRIZZLY MILL All Models

BEARING SEALED HOUSING ASSEMBLY - FLOAT

SCALE: 1/16

CHECKED BY: regart

DATE: 17-10-11

REV: 1 of 1

20110633

Weight: 17134.64 lbs

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. MACHINED TOLERANCE: ±0.005 DECIMAL DIMENSIONS: ±0.015 FRACTIONAL DIMENSIONS: BREAK ALL SHARP EDGES.

REV	BY	DATE	DESCRIPTION
A	regart	18-01-19	ADDED PUSHER SCREWS



INSTALLATION OF FIXED AND FLOATING BEARINGS

Install new bearing in housing with tapered sleeve facing out, add two bolts & flat washers in the threaded cap holes. This will prevent bearing from moving out during handling.



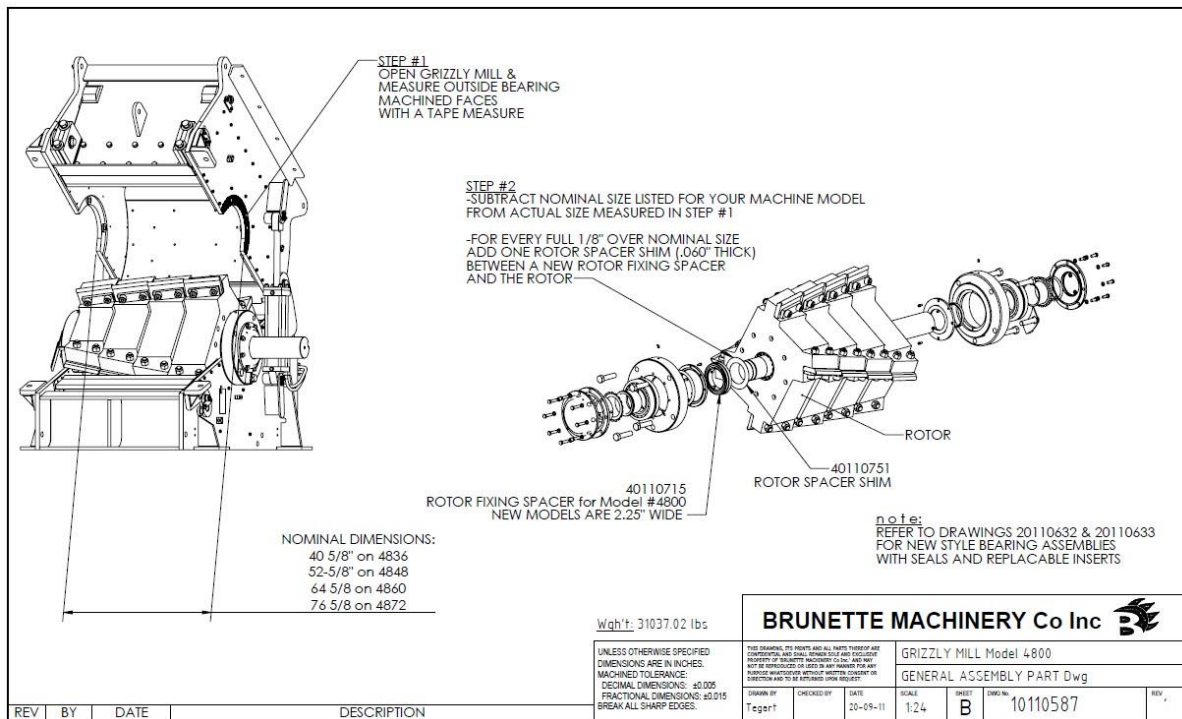
- Center rotor position in lower frame, calculate fixing spacer position, add, or remove adjustment shims as required.
- Install new bearing in housing with removal sleeve installed from the outside.
- Slide complete unit onto shaft and move up against side frame and fixing spacer.
- Install caps to prevent contamination then support rotor and remove welded steel brackets. Grind off all weld residual, which may prevent the top box from closing fully.
- With the rotor raised up, remove caps and slide bearing housing into position.
- Lower rotor and position lower bolt holes. Install three bolts in fixed bearing first then move to the floating side.
- Confirm total bearing clearance. Check manufacturers recommendation for clearance reduction and remaining internal clearance.
- Recommended **clearance reduction** value is **[0.0035" to 0.0040"]**.
- See installation and maintenance manual. Rule of thumb: the last two digits of the bearing number (**22238CCK/W33 = .0038"**) is the clearance reduction value.
- Bearing radial **internal clearance** after mounting should be **(0.005" to 0.006")**.
- Rotate rotor multiple times to ensure bearing rollers have assume their correct position.
- Tighten locknuts and install lock washer tabs.





INFORMATION

- Fixed Bearing = installed removal sleeve by tightening nut on shaft. Sleeve and bearing should fully contact fixing spacer between shaft and rotor.
- Fixing spacer is supplied with adjustment shims, these are used to center the rotor in the main frame, adding shims moves the rotor away from fixed side.
- Floating Bearing = measure distance from face of housing to bearing outer race, this dimension needs to be 1/2" ± 0.032"



Preventative measures

- Most bearing failures are from lack of lubrication or excessive greasing. Over greasing or filling the bearing housing is just as bad as no grease.
- Impacts from foreign material can damage rotor bearings = Overheating may occur.
- Welding on rotor with ground wire attached to mainframe. With current traveling through bearing rollers. = Failure is immediate.
- Installing RTD's or temperature sensors are recommended by the OEM.
- See Parts and Service Manual for recommended grease.



Contact Brunette Machinery for Parts, Service, and Training

Brunette Machinery service technicians are available to support your maintenance team for training, major repairs, and/or bearing replacements. Contact us at the numbers below.

PARTS

- We deliver excellence
- Consumables in inventory
- On time delivery
- Quality OEM parts
- Service 24/7

Service

Our on-site service visit provides:

- Factory-trained OEM Technicians
- Complete Machine Inspections
- Detailed Follow-up Reports
- Preventative Maintenance Recommendations

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