ALIGNING
AND
LEVELING

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1. ALIGNING AND LEVELING

(Fig. 1-A)

◆The floor where unit is to be placed should be as level as possible and of sufficient strength to bear this unit, its change and dynamic loads. Usually 4"-6" thick, concrete floor is sufficient to carry most loads. It is not recommended to set anchor bolts in floor until unit is in place at plant site.

◆**Do not remove unit from wood skid until it is in position desired**.

◆**Keep in mind that the shell rotates. Supports should be placed to allow proper clearance from walls, ceiling, lights, pipes, etc. Also, allow proper distance from side walls for agitator shaft, siphon pipe, and vacuum tube removal, if furnished.**

◆Remove wood skids. Lower supports to the floor. Supports should be positioned parallel and square. See unit drawing for proper dimensions. Move supports so that dimension between them corresponds to drawing.

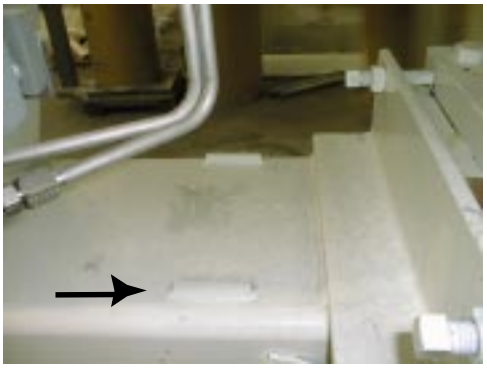
◆Check two places; front and back (Fig. 1-A)

◆Move supports so that diagonals are equal (Fig. 2-A)

(Fig. 2-A)

◆Unit supports are placed parallel and square when all dimensions are correct. Drill holes in floor for lag bolts. Usually six holes per support. Put bolts in place. Do not tighten.

◆To assure correct level and alignment, follow level lines scribed on support frames and level blocks as set at factory prior to shipment. <u>DO NOT ATTEMPT TO RE LEVEL USING OTHER METHODS.</u>



(Fig. 3-A)

◆Drive support has level blocks for accurate leveling of support on drive side. (Fig. 3-A)

◆Blocks should be made level by shimming under base of support.

◆Level front to back by using level lines scribed on side of support. Place metal shims on side of lag bolts. (Fig. 4-A)

(Fig. 4-A)

◆With a line level, check elevation of supports by using scribed level lines on rear of both supports. If one support is lower, it must be shimmed to meet elevation of the other (Fig. 5-A)

◆Tighten lag bolts and recheck lines and level blocks on both supports. If there is a change, loosen bolts and correct by shimming.

(Fig. 5-A)

2. GEAR / PINION ALIGNMENT

◆Next, remove gear guard (if applicable) and check clearance between gear teeth at pitch line. (Fig. 6-A) See unit drawing for gear DP.
MINIMUM tolerance should be :

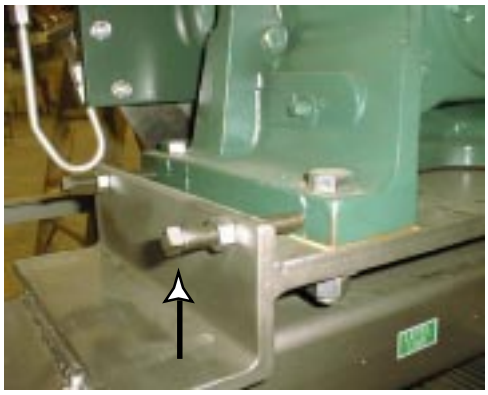
.005 - for 6 DP
.006 - for 5 DP
.007 - for 4 DP
.009 - for 3 DP
.011 - for 2-1/2DP
.018 - for 1-1/2 DP
.030 - for 1-1/4 DP

(Fig. 6-A)

◆Gear centers are positioned so that movement of speed reducer in one direction will decrease tooth clearance and in the other direction will increase tooth clearance.

◆To adjust gear clearance and tooth bearing, loosen four bolts holding reducer to frame. Remove belt guard and belts from pulley. (Fig. 7-A) Using adjusting set screws at bottom of speed reducer, move reducer to get proper clearance and full tooth bearing.

◆Check tooth clearance in four quadarants. Shell can be rotated by hand. Make sure that no spot has less clearance than required. Tighten reducer bolts, and check gear again for any change. Tooth bearing can be checked by passing a sheet of paper through gears while rotating by hand. Paper should show print of bearing surface for full width of tooth without any cuts.



(Fig. 7-A)

◆Base of supports can now be grouted.

BEFORE OPERATING UNIT, ADD LUBE OIL TO ALL REDUCERS AND CHECK ROTATION DIRECTION OF ALL MOTORS. SEE MAINTENANCE MANUAL M-5.

3. DRYERS

◆Dryers have expansion type pillow block bearings on idle side. When aligning these units, remove bearing cap to be sure that there is space between outer race and bearing housing. This space will allow shaft to expand.