



NORD Gear Disassembly Manual

DM:007

Revised
5/31/2002

Clincher Reducers: SK6382-SK11382

List of Tools

Following are a list of tools to disassemble the gear motor:

- ✓ Press with 10-30 ton capacity for smaller units, 50-100 ton capacity for larger units.
- ✓ Hoist
- ✓ Circlip pliers (both external and internal)
- ✓ Assorted support blocks
- ✓ Metric sockets & T-handles
- ✓ Screw drivers – Phillips & Flat
- ✓ Rubber Mallet
- ✓ Seal punch

Please Read Carefully Before Attempting To Disassemble Reducer

- ◆ For all bearings, the inner race is press fit onto the shaft and the outer race is installed into the housing by a sliding fit. Gears are press fit, input pinions are shrink fit.
- ◆ As each part is removed, label the part with its corresponding parts list number. When reassembling, each part (or its replacement) must be installed into its original position. Parts list can be found in the operators manual.
- ◆ Care should be taken when removing gears. Avoid contact with any hard object to prevent scratching. After removal, gears should be covered by a soft cloth.
- ◆ All parts should be inspected for damage. Bearings should be replaced as necessary. Gears and shafts should be inspected carefully for pits, corrosion, scratches, bending, etc. If any of these are observed, the part should be replaced to prevent knocking and premature wear.

Important

- ◆ Ensure that the reducer is mounted into the press rigidly.
- ◆ Ensure that parts to be removed are free of obstruction.
- ◆ Use support blocks to safely mount the reducer and properly align the press cylinder to the corresponding part.
- ◆ When a part is being pressed out, place a block of wood underneath to help from damaging the machined metal surfaces of the part.



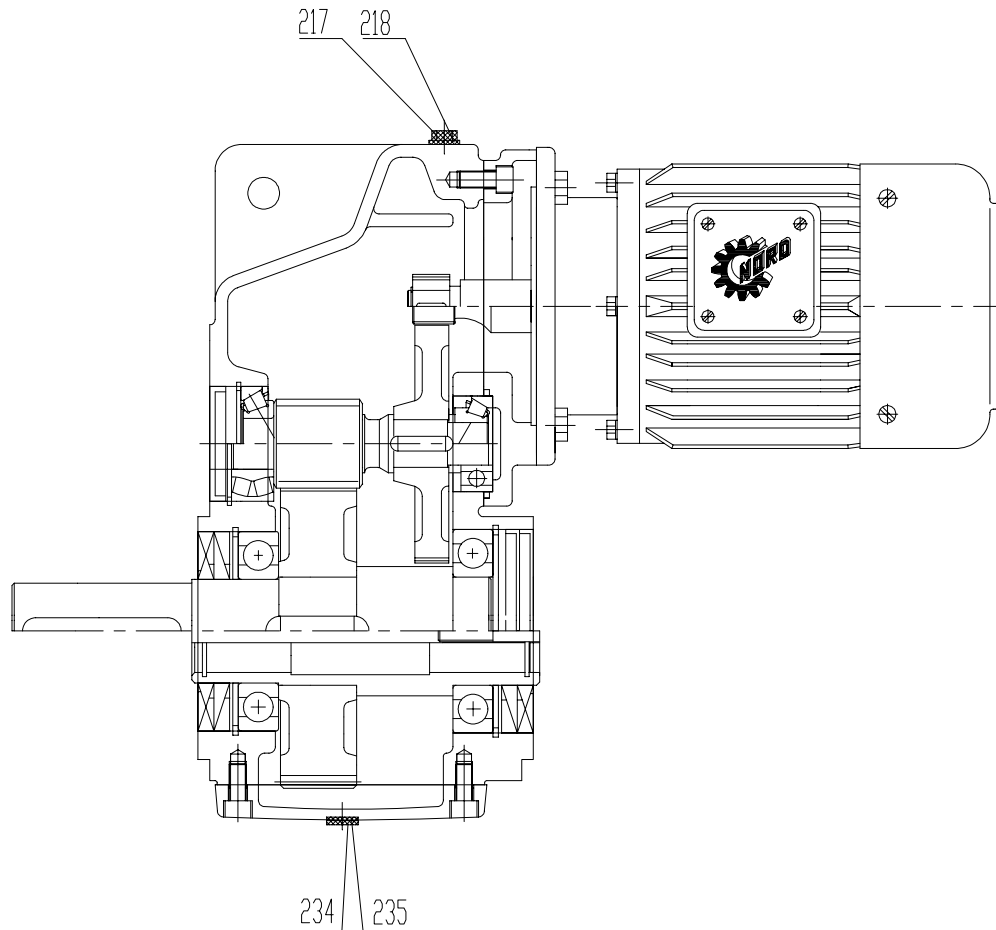
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STEP 1



Drain oil. Remove drain plug (234), seal (235), vent plug (217), and seal (218).

Note: The drain plug and vent plug may be at different locations on the housing for different mounting positions.



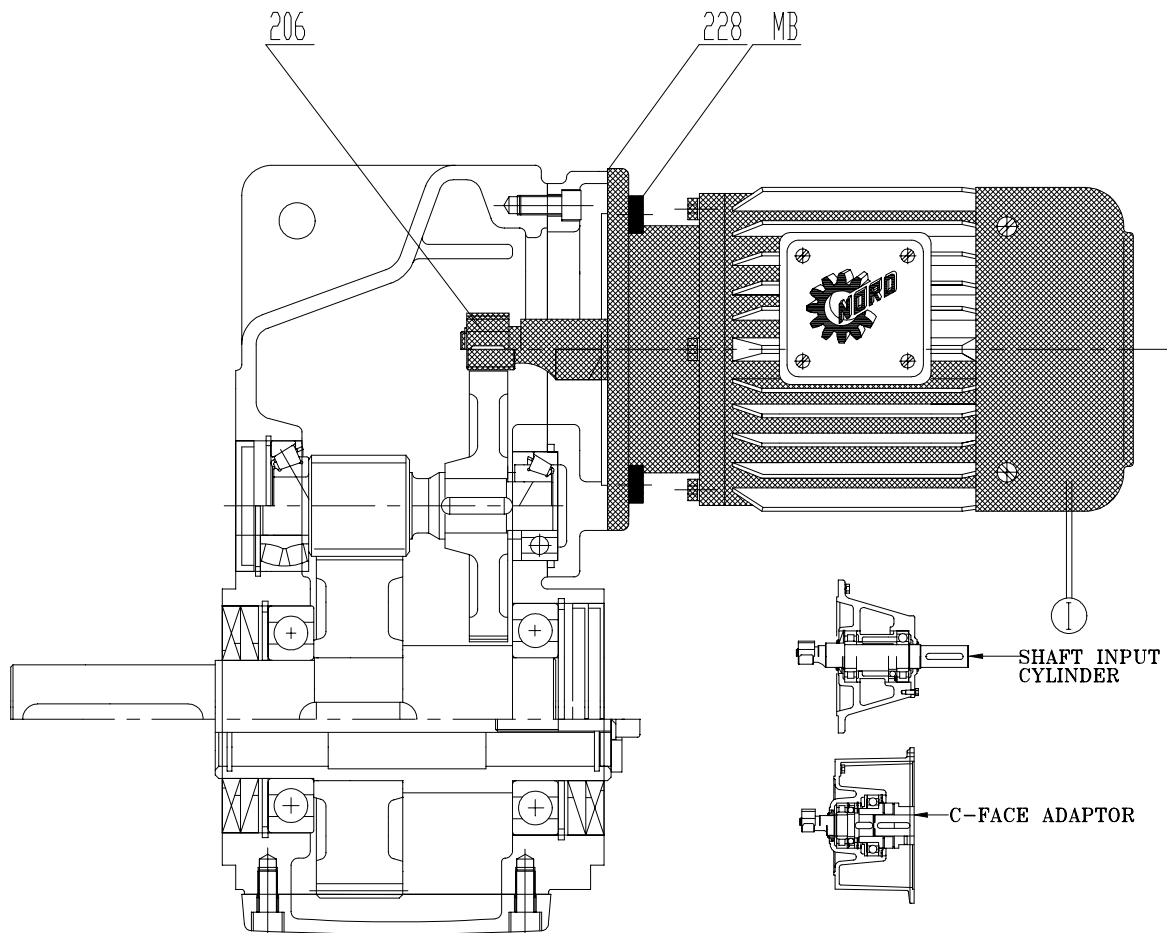
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STEP 2



Remove motor (I) by loosening bolts labeled MB. Remove driving pinion (206) with a puller if applicable. Gasket (228) must be replaced.

Note: This procedure also applies to C-face adaptors, extra gear stages, and shaft input cylinders.



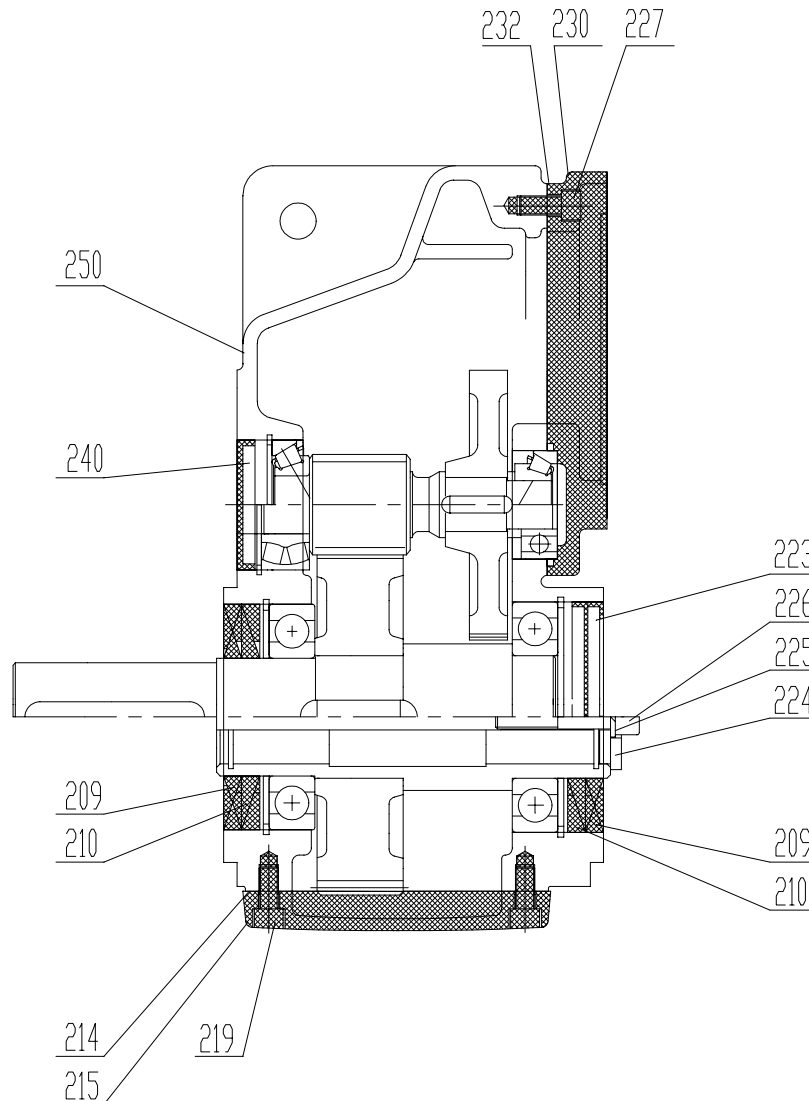
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STEP 3



Remove seals (209) and (210), and locking caps (223, 240). Puncture the seal or caps with a punch on an angle to prevent damage to the bearing, shaft and housing. Pry to remove. Seals and caps must be replaced. Remove gearcase covers (219, 230) by removing bolts (219, 227). Gaskets (214, 232) must be replaced. Remove fixing element assembly (224, 225, 226), if applicable.



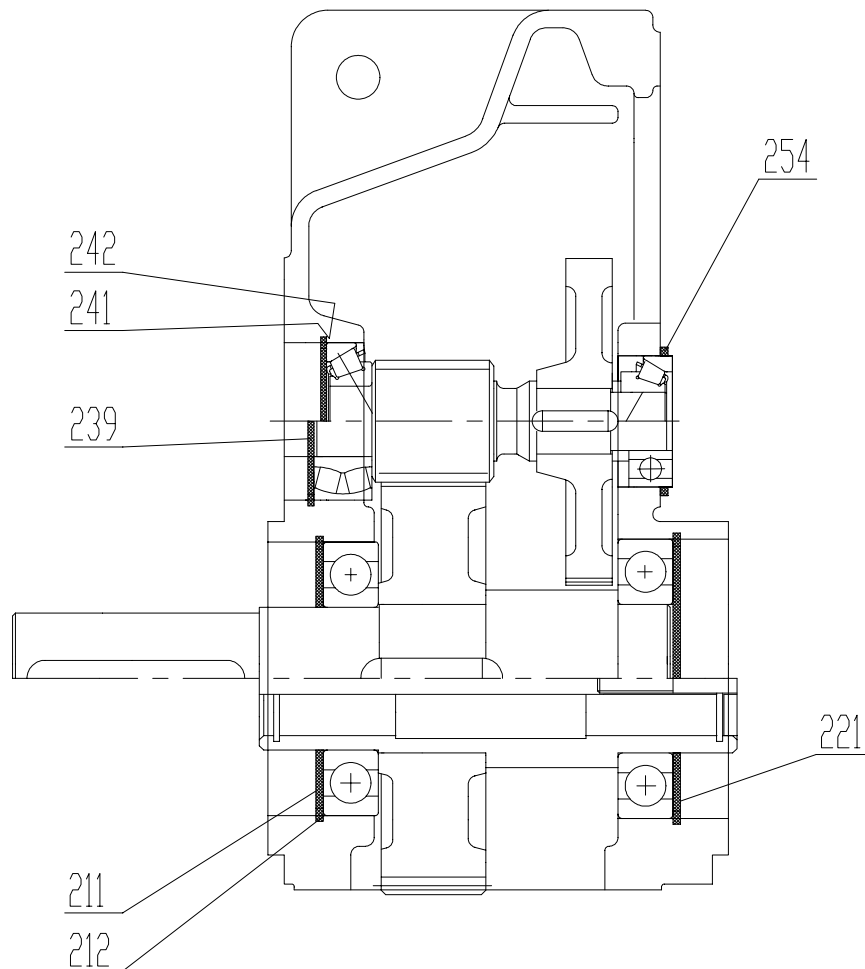
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STEP 4



Remove all circlips, shims and supporting discs
(Items 211, 212, 239, 241, 242, 254).



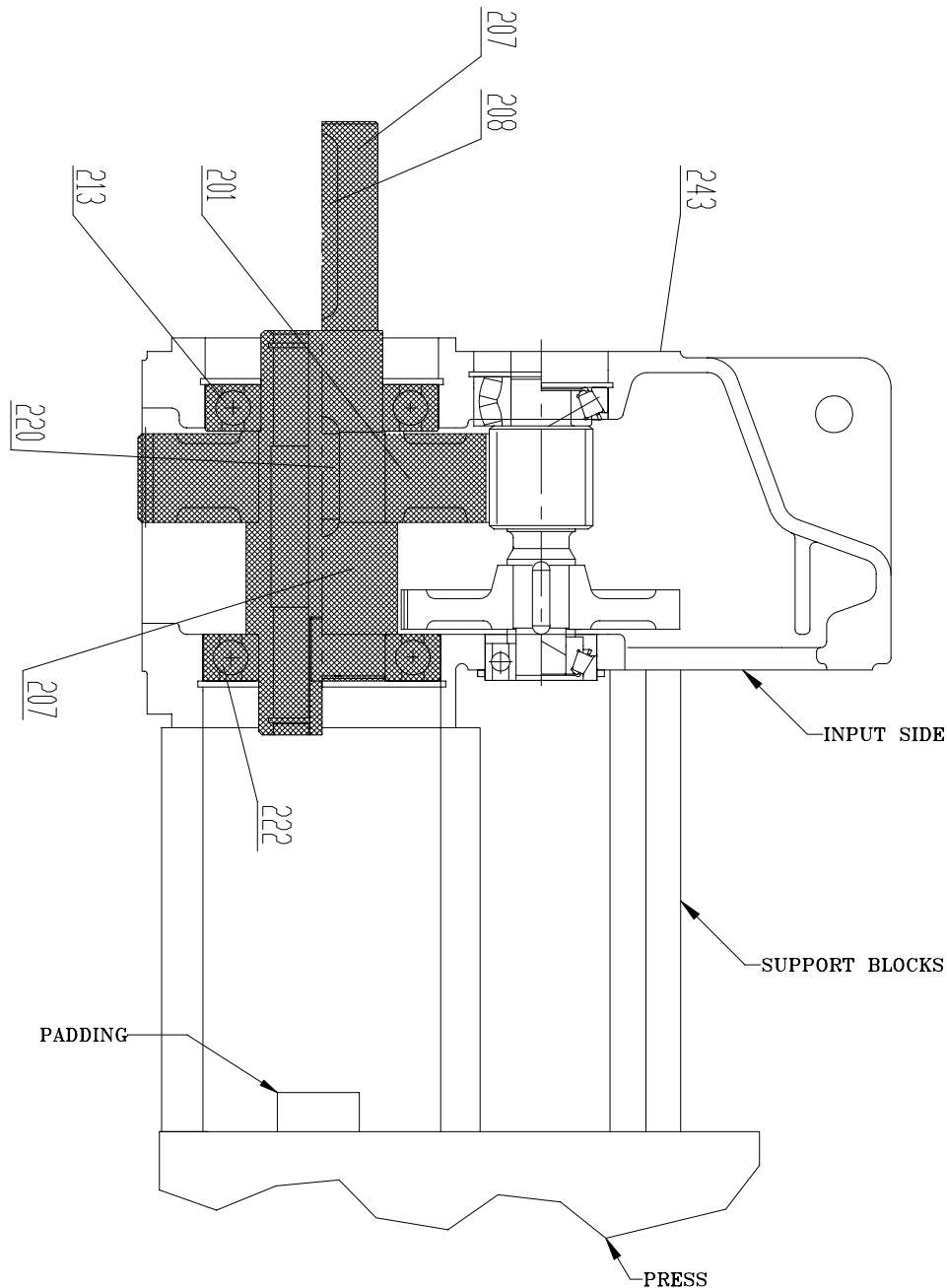
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STEP 5



Support gearbox housing (243) in a press with the input side facing down. Housing (243) should be supported by blocks to allow the output shaft and bearing assembly (207, 220, 222) move out of the housing from the bottom without restriction. The shaft should be in direct alignment with the press cylinder.

Place a block of wood or soft material on the press beneath shaft (207) to prevent damage when it drops out of the housing.



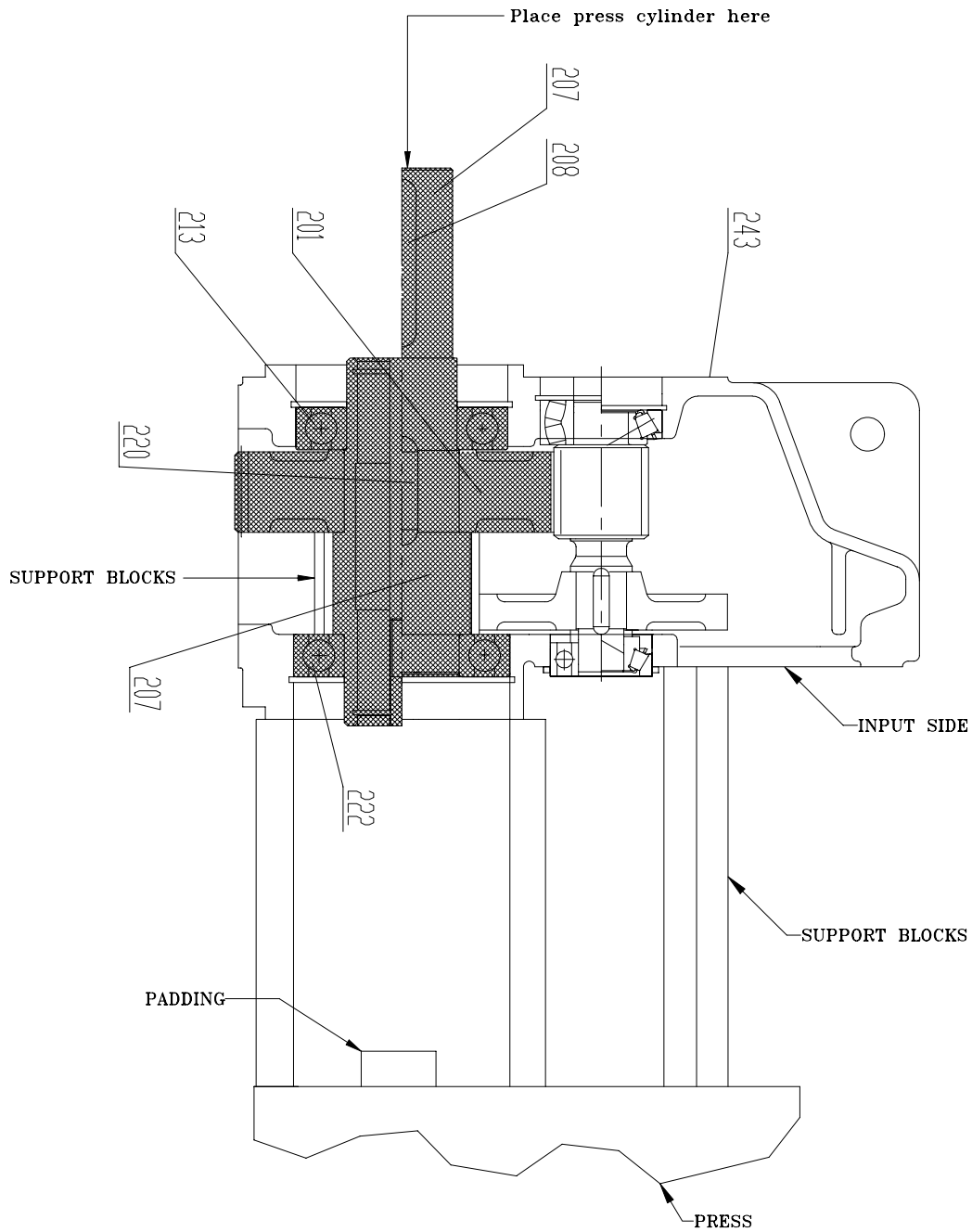
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STEP 6



Place support blocks between housing (243) and driven gear (201) as illustrated to ensure alignment. Press output shaft (207) until bearing (213) and gear (201) are free and shaft assembly (207, 222) fall out of the housing (243). Remove gear (201) and bearing (213). Note that it may be necessary to use a press block to press output shaft (207).



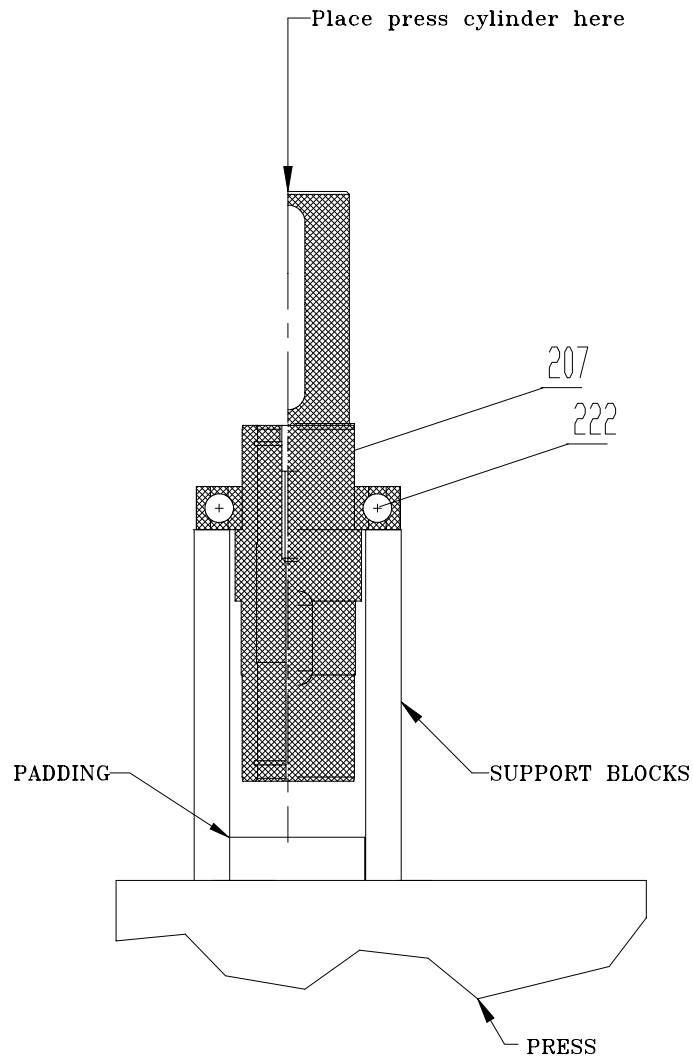
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STEP 7



Remove output shaft (207) from bearing (222) by supporting the bearing by the inner race.



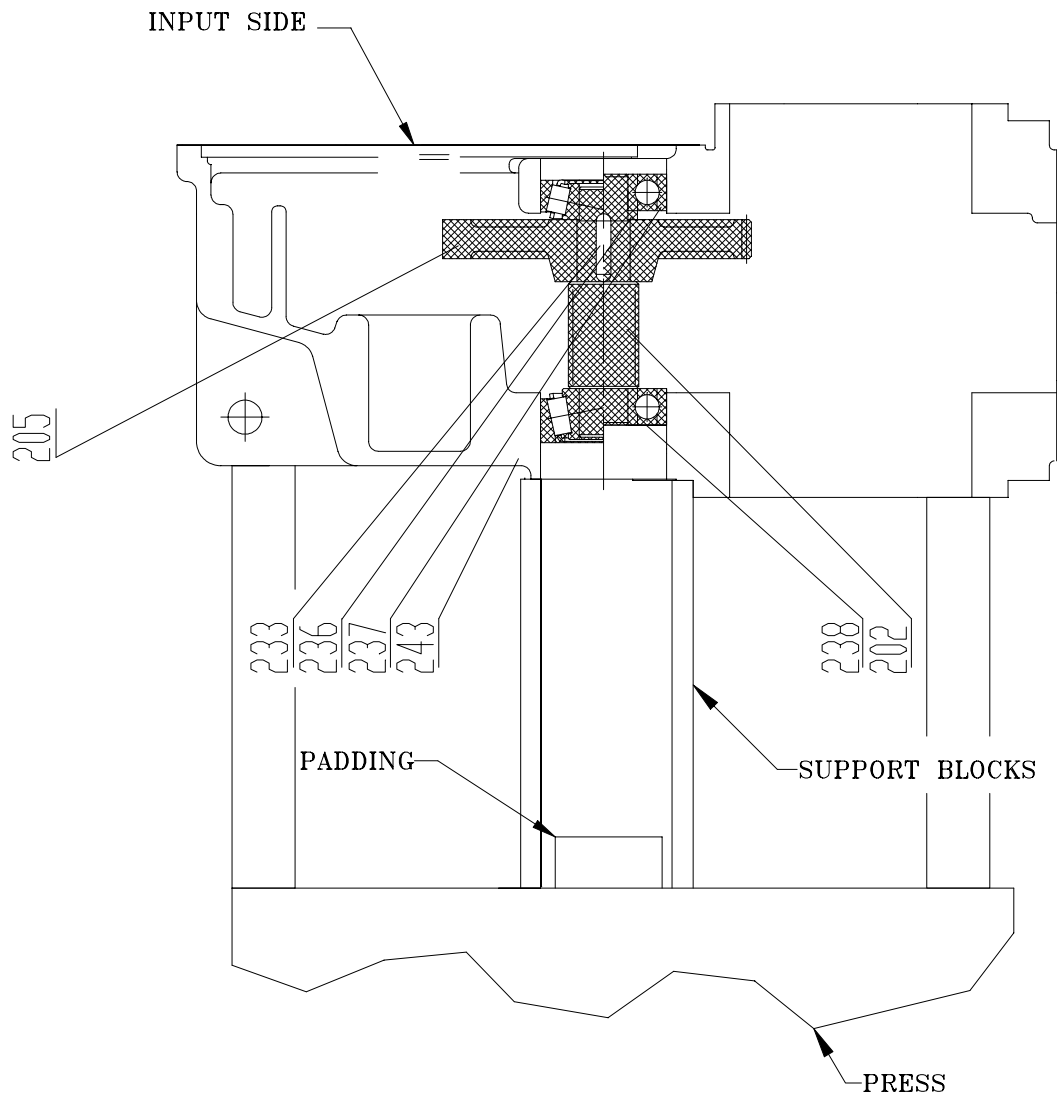
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STEP 8



Remount housing (243), with the input side facing up. Allow clearance for pinion shaft assembly (202, 233, 238). The shaft should be in direct alignment with the press cylinder. Again, place a block of wood, beneath shaft (202), to prevent damage when it drops out of housing (243).



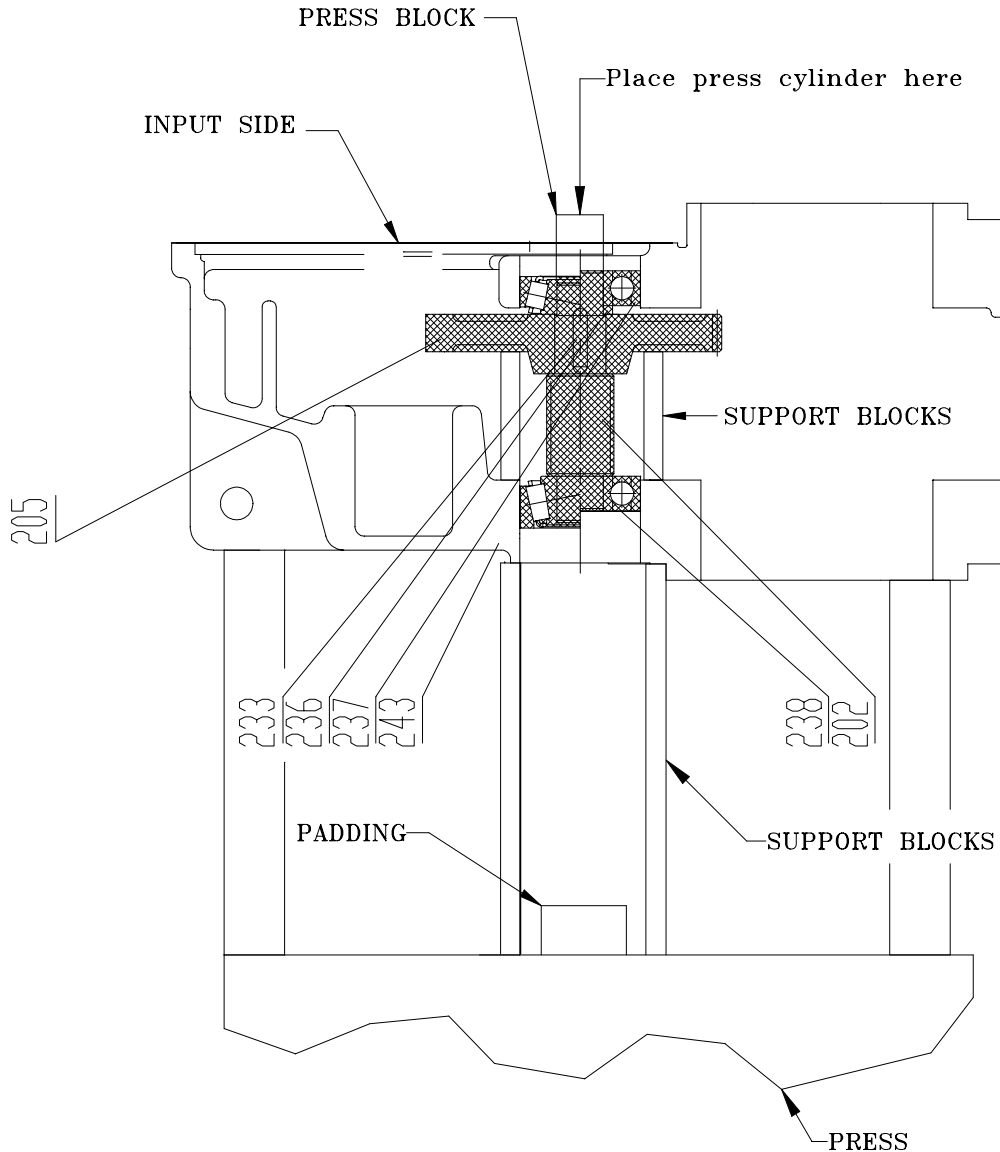
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STEP 9



Place support blocks between housing (243) and driving gear (205) to ensure alignment. Press pinion shaft (202) until bearing (237) and driving gear (205) is free, and shaft assembly (202, 233, 238) drops out of the housing. Retract the cylinder and remove bearing (237) gear (205), and supporting disc (236). Note that it may be necessary to use a press block to press pinion shaft (202).



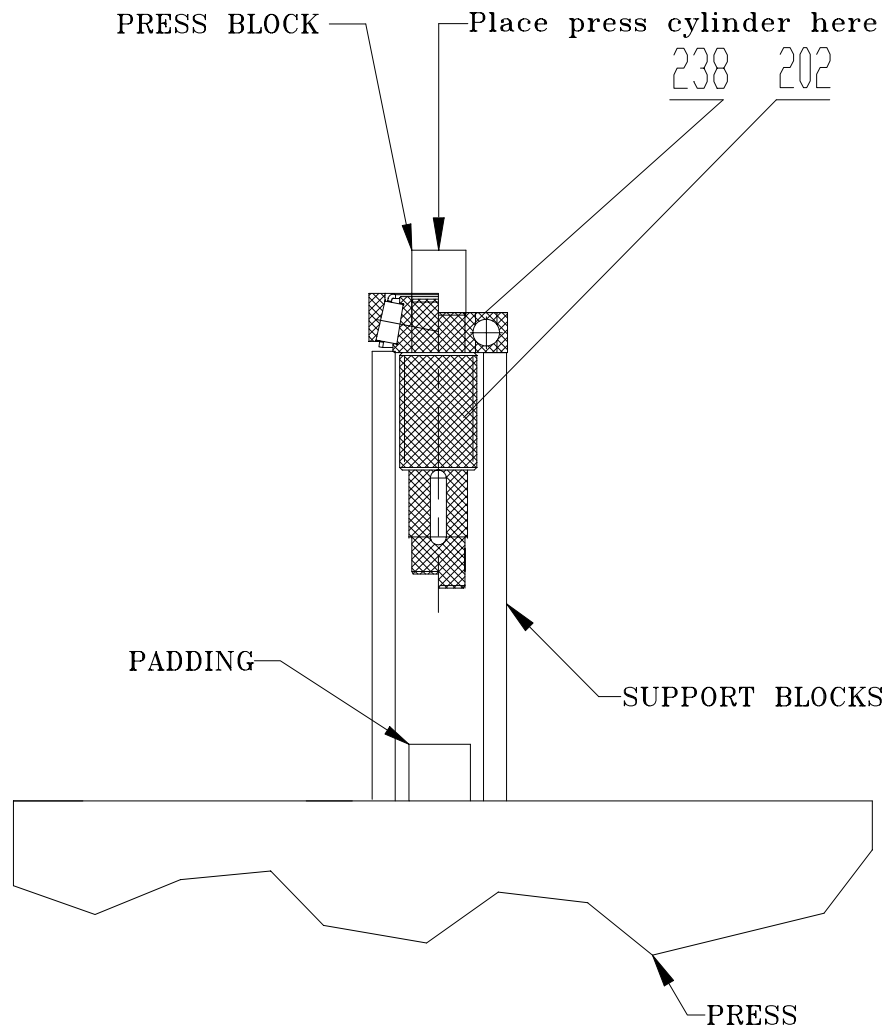
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STEP 10



Remove pinion shaft (202) from bearing (238) by supporting the bearing by the inner race.



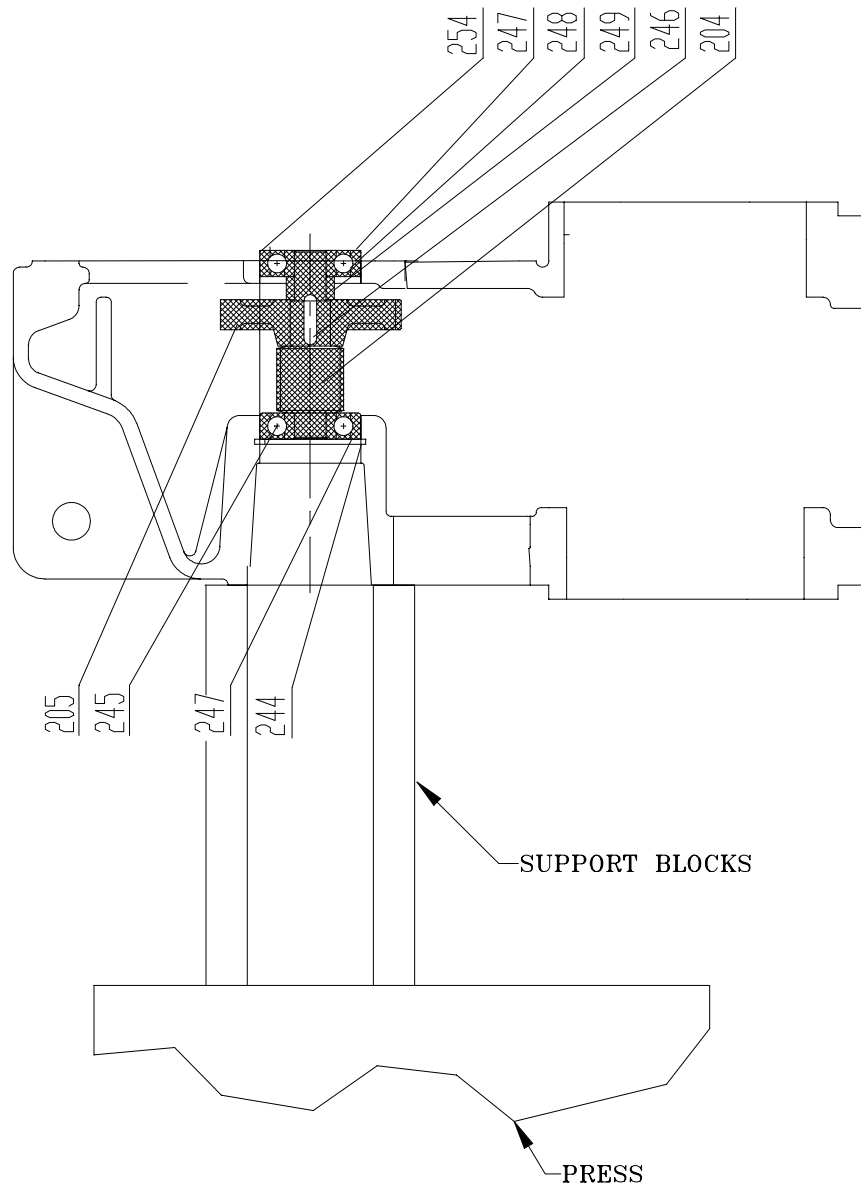
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STEP 11



Remove, circlip (244), shim (247), and spacer (254). Remount housing (243) rigidly, with bearing (248) facing up, to provide support beneath the pinion shaft assembly (204, 205, 245, 246, 248, 249). The shaft should be in direct alignment with the press cylinder.



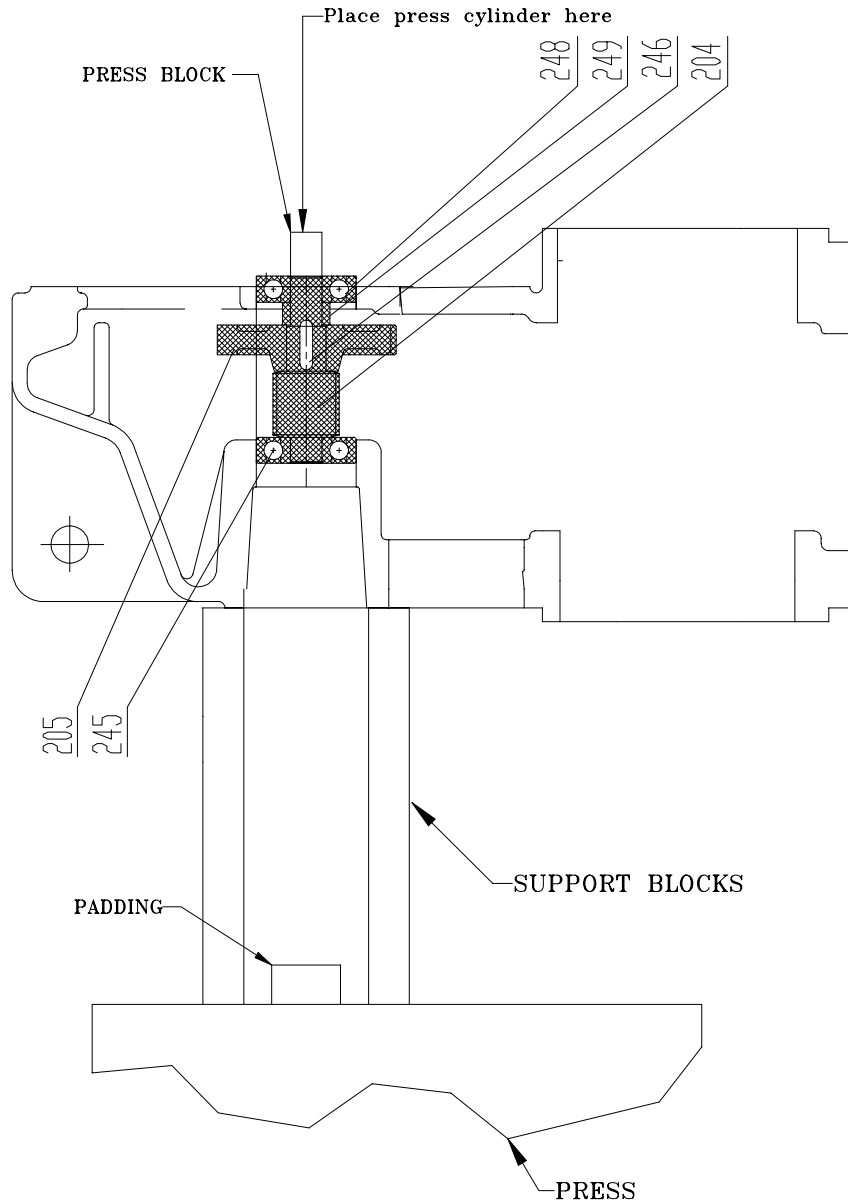
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STEP 12



Press pinion shaft (204) until bearing (248) and driving gear (205) is free. Retract the cylinder and remove bearing (248), spacer (249), and gear (205). Use a press block if necessary and place padding beneath the pinion shaft.



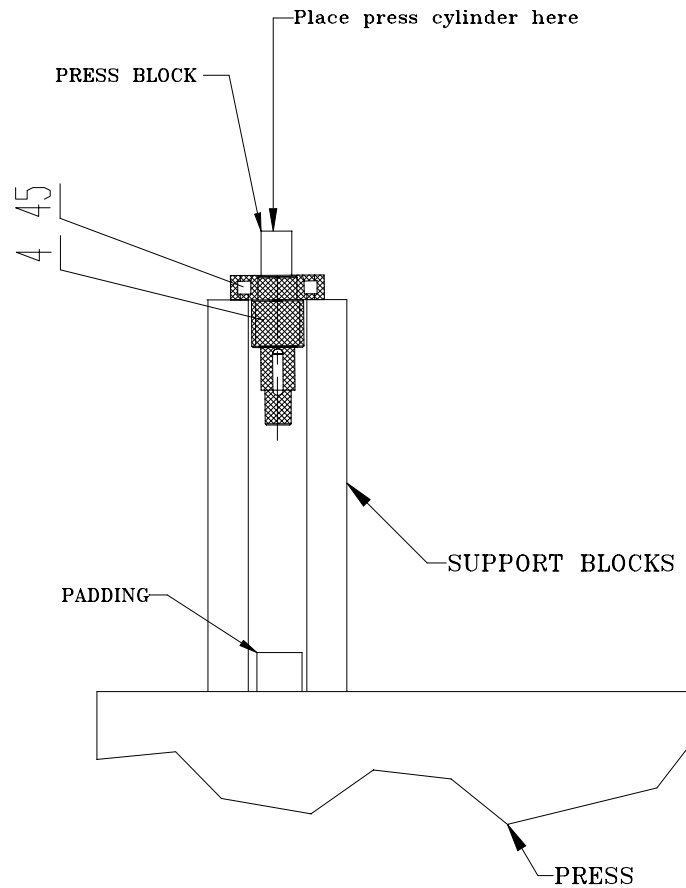
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STEP 13



Press pinion shaft (204) from bearing (245) by supporting the bearing by the inner race.