

Important

Read before selecting, installing, operating or maintaining Delroyd reducers. **WARNING: SELECT, INSTALL, OPERATE AND MAINTAIN DELROYD EQUIPMENT ONLY IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS, AND DELROYD CATALOGS AND INSTRUCTION BOOKS. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN SEVERE BODILY INJURY AND PROPERTY DAMAGE. CONTACT DELROYD TO GET CATALOGS AND INSTRUCTION BOOKS** All catalog information, warning tags, these instructions, all special or general instruction manuals, parts lists, maintenance instructions, and drawings must be kept with the reducer.

I. Safe Operation Depends on Selecting the Proper Reducer

A. Selection Responsibility

1. Delroyd Customers are responsible for selecting proper reducers.
2. Delroyd customers must select reducers that can be used in accordance with Delroyd criteria concerning transmitted horsepower, speed, applied external loads, applied axial thrust loads and applicable service factors. Use of Delroyd reducers must conform to all such criteria.
3. Customers requesting recommendations from Delroyd concerning reducer selection must provide accurate and complete information concerning all operation variables that may be encountered in the proposed reducer application. Such variables include but are not limited to loads, speeds, shock, ambient temperature and published Delroyd service factors.

B. Reducer Compatibility with the Drive System

1. When selecting a reducer, the customer must analyze the motor, reducer, driven machine and all connecting parts for compatibility, critical torsional or other vibrations and other applicable forces during all modes of operation.
2. The customer should request Delroyd assistance in selecting a reducer if conditions such as overloads during starting, momentary peak or stalling loads, high inertial starting or stopping systems, reversing direction of rotation, over-running operations, corrosive or dusty atmospheres or ambient temperatures under 20°F or over 100°F might be encountered.
3. When selecting a motor for a Delroyd reducer, NEMA (National Electrical Manufacturers Association) Standards Publication MG2 (Safety Standards for Construction and Guide for Selection, Installation and Use of Fractional and Integral Horsepower Motors and Generators) must be obtained and studied. Electrical and other motor hazards should be considered. In all instances the motor manufacturer's instructions should be followed carefully. Such instructions must be obtained from the motor manufacturer directly or through Delroyd.

II. Installation of Delroyd Reducers

A. Upon Receipt of Shipment

1. Examine the equipment for damage and corrosion. Report any discrepancy to the shipper, and to Delroyd for replacement or repair.
2. Examine the reducer nameplate and motor nameplate (if a motor is also supplied) to be sure the proper equipment has been received.
3. Do not remove these name plates. They are provided to identify the model number, size and serial number so that Delroyd can supply the proper spare or replacement parts to you or any subsequent owner. The information on name plates also enables the user to check manufacturer's publications for instructions concerning proper application, installation, operation and maintenance of reducers and motors.
4. Study and retain all warning tags, instruction, parts lists and parts drawings received with the shipment or sent separately.

B. Installation

1. Follow Delroyd installation instructions and the instructions of the motor manufacturer.
2. Provide proper OSHA conforming safety guards for couplings, exposed rotating shafting, belts or chains on your Delroyd reducer installation.

3. Lifting eyebolts or other lifting devices supplied with the reducer are designed for raising the reducer only. They should not be used to lift the reducer plus other components, and should be removed after installing the reducer.
4. All Delroyd reducers are shipped without oil. Add oil to proper oil level before starting. Allow sufficient time for the oil to fill all parts of the reservoir and recheck the level.

III. Operation of Delroyd Reducers

A. Before First Starting the Reducer

1. Disconnect the reducer from its driving motor and check motor rotation. Reverse motor rotation if necessary and reconnect the reducer.
2. Rotate the motor and reducer by hand to be sure all components turn freely.
3. Replace all safety guards.
4. Review reducer operating instructions, lubrication schedules, and maintenance schedules.
5. Review Motor manufacturer's operating instructions.

B. Fan Precautions

Most Delroyd reducers are equipped with a fan for cooling the reducer. This fan is guarded, but must have inlet and outlet air openings to provide the necessary air movement. To avoid severe bodily injury or property damage:

1. Do not remove the fan guard or insert fingers or other objects into the air openings when the reducer is operating.
2. Shut down and lock out the motor driving the reducer before the fan or fan guard is removed or in any way adjusted.

C. Inspections

As with all mechanical equipment, a program of regular inspection is important to prolong equipment life and to safeguard people and property.

1. Periodic inspection of the reducer must be made every 2,000 hours of operation or every six (6) months, whichever such period expires earlier.
2. The above inspection must also be conducted after each time the reducer has been subjected to any overload, or stall condition or loss of lubricant.
3. Reducer parts that are damaged or worn, or the presence of contaminants (such as water, dirt, bronze or steel particles) in drainage oil could indicate impending failure. An increase in noise, a drastic increase in backlash, an increase in motor HP required, or other erratic behavior of the reducer could indicate impending failure.
4. If any of the above conditions are observed, the reducer should be immediately taken out of service until the cause of the condition is determined and corrections made. Consult Delroyd for assistance. Failure to immediately remove such a reducer from service could result in loss of control of the driven machine and consequent severe bodily injury or property damage.

IV. Maintenance of Delroyd Reducers

- A. Care should be exercised when draining oil during lubricant replacement. Oil temperatures of 180°F to 200°F can normally be expected and severe burns could result if oil contacts personnel or their clothing.
- B. Before beginning removal or disassembly of any part of your Delroyd reducer for maintenance or inspection, lock out the driving motor control panel to prevent inadvertent starting and disconnect driven load.
- C. Repairs can be done by Delroyd using factory stocked or manufactured parts if the reducer can be returned to our plant in Niagara Falls, New York. If repairs are done elsewhere, all instruction book adjustments must be followed and Delroyd manufactured parts must be used.
- D. The motor manufacturer's instructions should be followed carefully in performing motor maintenance.