

FULLER-KINYON PUMP SCREW INSPECTION CRITERIA

The following standards will allow you to inspect your own pump screw before shipping it back to our Manheim, Pennsylvania factory for exchange. If this criteria is carefully followed you can, in most cases, determine the screw's suitability for repair.

The following areas of wear are the determining factors for economic screw repair.

1 - FLIGHT SECTION – If the flight base metal is worn under the hardfacing, either on the flight periphery or face, we replace the flight. The thickness of hardfacing on the periphery is approximately 3/8" thick and about 1/8" thick on the flight face. Flights are replaced in one turn (360°) segments. We list the maximum number of flights per screw size that can economically be replace.

- A. 5" through 6.6" screws - no more than one flight.
- B. 7" through 8.5" screws - no more than two flights.
- C. 9" through 10.5" screws - no more than three flights.

If any more flights than listed must be replaced, the screw should be scrapped.

2 - BALANCING HOLES – We can repair any number of balancing holes that are worn through behind the threaded area. If any one of the balancing holes at the end of the screw is air cut so that more than one-quarter of the threaded area is gone (preventing proper installation of an Allen screw), the pump screw cannot be rebuilt properly.

3 - HOLLOW SCREW CONSTRUCTION – All hollow screws from 5" through 10.5" size, cannot be rebuilt economically and should, therefore, not be returned. These can be identified also by the lighter weight in comparison to the standard solid shaft screws.

4 - CUT SCREWS – Screws which had to be cut into two pieces in order to remove them from the pump cannot be repaired.

5 - SHAFT RENEWABLE SLEEVE AREA – If the shaft area between the renewable sleeve and the first flight is air cut to a depth no greater than 1/4 inch of the shaft diameter for a 1" area, or if a 1/4" deep band is cut around the shaft, the screw is repairable.

6 - HARDFACING APPLICATION – Most FLSmidth manufactured and Exchange Screws have #6 Colmonoy applied to the face, and Colmonoy HC240 applied to the shaft stub, **only with gas welding**. If hard surfacing is applied with electric welding, it will not be smooth enough on the flight faces for efficient conveying **nor will it bond properly, so it cannot be rebuilt for the Exchange Program** by Fuller Company.

If other types of hardfacing such as Kenface are used, this information will be stamped on the shaft.

Pumps operating at less than 60 percent of rated capacity may experience considerable wear of many of the screw flights all on one side of the screw. If this wear is extreme the screw may be scrap. FLSmidth should be contacted for possible pump resizing.

