

AERIAL TURNTABLE DRIVE MOTOR

OVERVIEW

From this point forward Sutphen Corp will be switching from a single drive operated motor to dual drive operated motor for the SP-95/100 & SP-110. We are changing from the Perfection (formerly Winsmith) rotational drive motor. This change has already been implemented in all new tandem axel aerals currently in production in Dublin.

Here is a short list of the advantages of the Fairfield drive motors:

- Higher torque rating than the Winsmith or Perfection gearbox.
- With the incorporated brake on the FF drives it can hold the boom in position regardless of the direction or flow of the monitors mounted on the bucket.
- With two drives, if one failed, rotation of the boom is still possible
- Better control in rotation with greater control resolution
- Improved overall control of the boom with less backlash than current motor

The current specs have been updated to read the following:

The turntable shall be equipped with a rotating mechanism consisting of two hydraulically powered, planetary gear boxes that shall handle torque loads imposed by water hammer and hose breakage. The rotating mechanism shall give the turntable and boom built in coast as an added safety precaution to avoid lateral boom side-to-side deflection (reactionary whipping effect) caused by the boom being stopped suddenly.

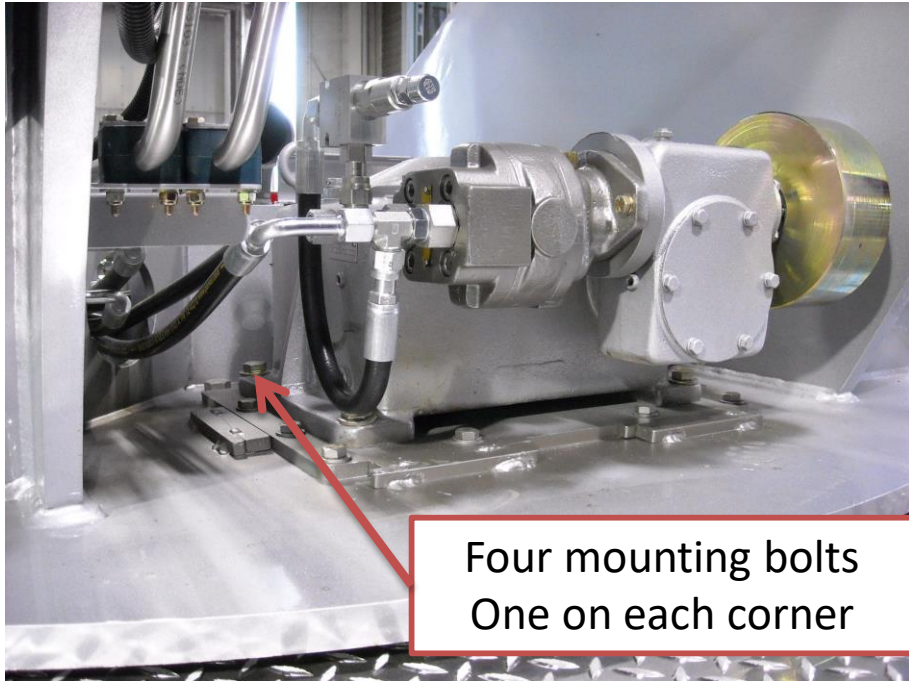
A parking brake system shall be provided that is capable of holding the turntable in a stationary position regardless of the angle or extension of the aerial, while carrying the manufacturer's rated load capacity with the waterway in operation and discharging water at the tip of the aerial fly section. An override shall be provided to release the parking brake when operating with the emergency auxiliary power unit.

The power operated turntable shall provide continuous rotating of the aerial structure clockwise or counter clockwise, thus enabling the structure to be positioned in any segment through 360 degrees. The rotating mechanism shall also provide sufficient power to rotate the aerial sections in any direction at any angle, fully extended, while carrying the manufacturer's rated load capacity with the waterway in operation and discharging water at the tip of the aerial fly section.



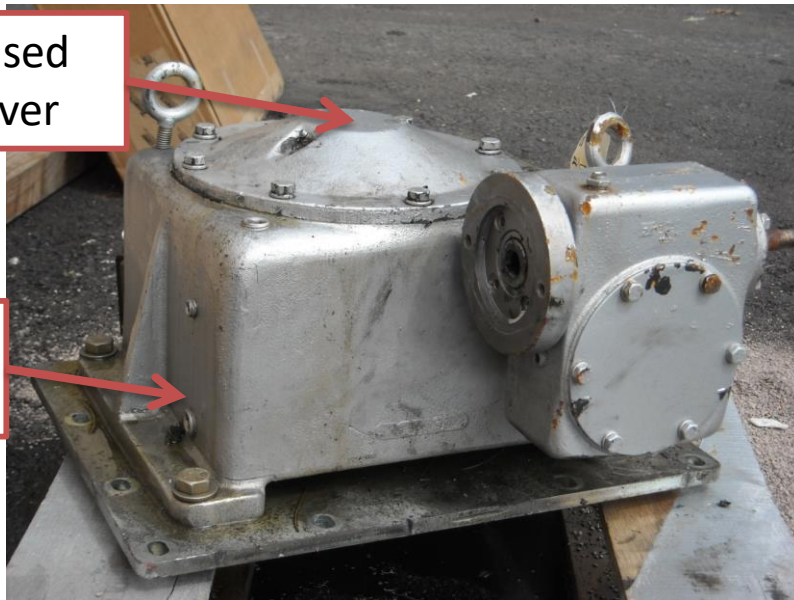
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Winsmith – Old Style



Raised
cover

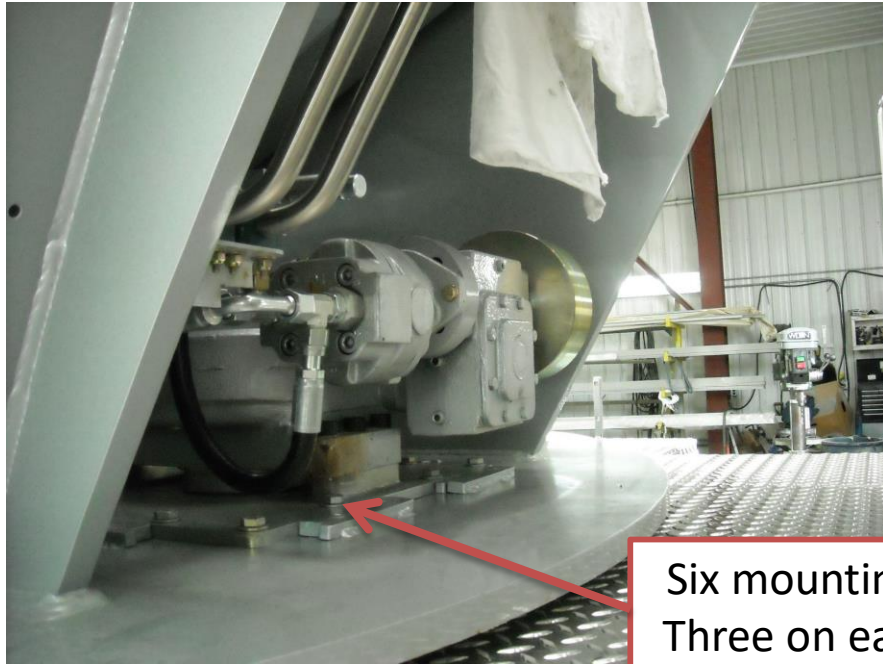
Box
shape



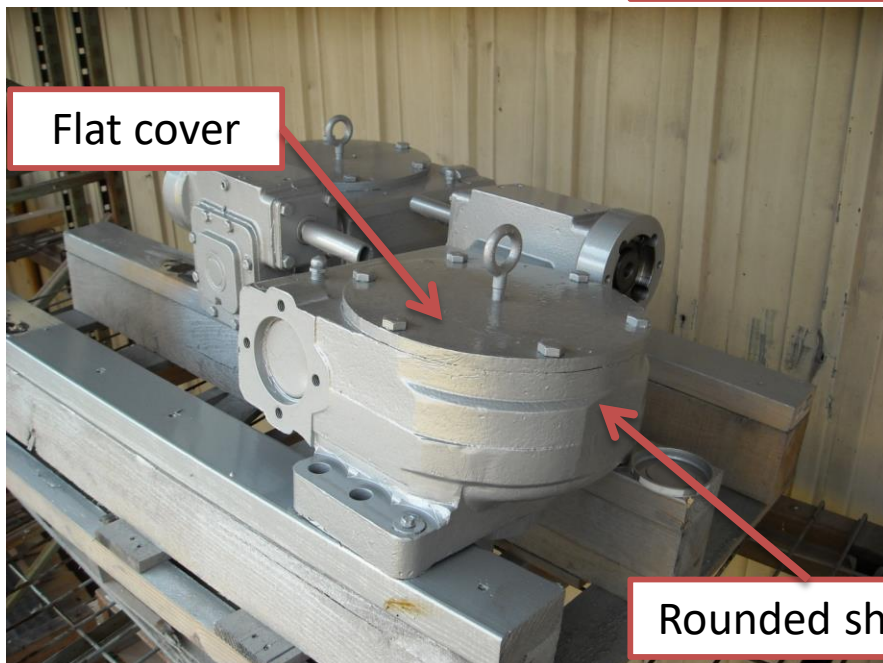


AERIAL TURNTABLE DRIVE MOTOR

Perfection - Currently



Six mounting bolts
Three on each side



Flat cover

Rounded shape



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Fairfield – New Configuration

