## Field Service Spares Replacement Procedure - AZ Drive Chain Kit, XX09

#### Approval:

Approving Authority	Signature	Date
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#### **Revision History**

Rev.	ECO	Description of Change	Date
Α	8795	Initial release	08-05-2011
В	9063	Clerical revisions	10-03-2011
С	9170	Clerical revisions	12-06-2011

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### 1. Brief Summary:

Troubleshooting document for inspecting, and replacing a damaged drive chain on the XXo9 series antennas.

# 2. Theory of Operation:

The azimuth axis of the XXog series antennas is chain driven; the motor will drive in response to inputs from the vessels gyro compass, azimuth rate sensor and operator inputs. Under normal operation relative drive will be issued to counteract changes in the vessels heading to maintain the azimuth look angel of the satellite.

### 3. Inspections:



\*CAUTION: Be extremely careful rotating the pedestal around while your fingers are in this area to prevent pinching or crushing your fingers in the pedestal assembly.

#### 3.1. Alignment.

Inspect the alignment of the chain through the motor drive sprocket and the drive sprocket. Misalignment will stress the chain and potentially cause drive issues with the system. Rotate the pedestal by hand and verify the chain runs freely, with no binding or catching on the sprockets.

#### 3.2. Damage.

Inspect the chain for damage. Verify the tensioner is maintaining good contact/tension and that the belt is not slipping on the sprockets.

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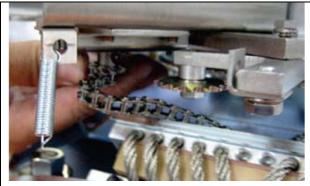
## 4. Procedure for Replacing the XXo9 Azimuth Drive Chain:

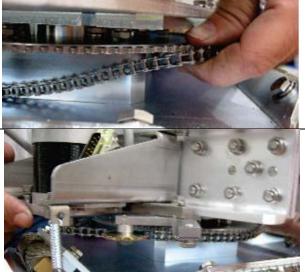
Procedure for replacing the XXo9 azimuth drive chain, Sea Tel kit part number: 135343 (chain part number: 108305-10).

# \*CAUTION: Power down the pedestal before following this procedure.

- 1. First remove the chain tensioner spring; to do this use a small flat blade screw driver to unhook it from the eyelet. Now you can remove the old drive chain by removing the retaining clip from the split link and breaking the chain.
- 2. Wrap the replacement chain around the azimuth drive assembly and join it with the split link.
- 3. Now wrap one side of the chain around the Azimuth motor sprocket and hold in place.
- 4. Wrap the other side of the chain around the Azimuth drive pulley.

- 5. Ensure that the chain is fully engaged with the drive pulleys. Take care not to catch your fingers in the assembly.
- 6. Re-connect the chain tensioner by re-connecting the tensioner spring to the eyelet.
- 7. With the chain drive fully engaged, drive the antenna in azimuth while observing for any physical obstructions. Ensure that the axis is running freely and that the chain is not slipping or jamming up.







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