

Cooling & Exhaust Service Guide

Raw-water pumps · Heat exchangers · Exhaust elbows

Installation, commissioning and maintenance for Northwind engine cooling components, including the bronze raw-water cooling pump.

BRONZE RAW-WATER COOLING PUMP

The Northwind bronze raw-water cooling pump is a self-priming, belt-driven pump mounted on the engine front and rated for engines to 400 hp. The bronze body resists galvanic attack in salt water and is the correct specification wherever the raw-water circuit is not closed. Do not substitute a composite body on a salt-water installation.

ITEM	SPECIFICATION
Body material	Bronze
Maximum engine rating	400 hp
Priming	Self-priming
Drive	Belt-driven from the engine front
Circuit	Engine raw-water cooling
Shipping weight	47.9 lb

INSTALLATION

Mount the pump so the drive belt runs true within 1.5 mm across the pulley faces. Tension the belt so it deflects 10 to 12 mm under firm thumb pressure at the longest span — an over-tensioned belt destroys the pump bearing long before it slips. Support the inlet and outlet hoses independently; the pump body is not a hose bracket.

ITEM	SPECIFICATION
Belt alignment	Within 1.5 mm across pulley faces
Belt tension	10–12 mm deflection at the longest span
Hose clamps	Two per joint, opposed, all-316 stainless
Seacock	Closed until the installation is complete and checked

COMMISSIONING AND MAINTENANCE

Open the seacock, confirm flow at the exhaust outlet within fifteen seconds of first start, and check the shaft seal for weeping after the first hour under load. Thereafter inspect the impeller annually and replace it every 200 hours or after any dry running.

Collect and count every fragment of a failed impeller before returning the engine to service.

ITEM	SPECIFICATION
First flow	Within 15 seconds of start
Impeller	Annually or 200 hours
Shaft seal	Inspect at every impeller change
Winter lay-up	Drain fully; do not leave raw water standing in the body

Northwind Marine dealer support · Stocked parts ordered by 3 PM CT ship from the Gulf Coast distribution centre the same day. Issue 26 July 2026.