



# KPM Marine D.E. Ltd.

Safety critical Design and Engineering for the Marine industry

Innovating Safety at Sea

## BeckyJane proves KPM pumps best in world

One of the oldest fishing traditions in the country can be found between Hastings up to Deal, where beach launching/landing is a daily occurrence. The Becky Jane of Hythe is no exception albeit to a more modern design and running closed loop cooling Beta engines. However; in order to operate the launch procedure required the pump to run dry for at least 40 minutes a day. The competitors pump would only last for 2.58 minutes, meaning each launch would need an impeller change. **KPM pumps achieved 2400 minutes of run dry**

### Problem: Run Dry Beach Landing.

Due to the extreme nature of the problems **Beta marine and KPM engineers** opted to undertake a survey of the setup to ascertain the running conditions and fault modes.

•**40 Minutes run dry per day** The starboard engine using closed loop cooling is used to power the hydraulic winch to pull the boat into and out of the water. This meant there was 40 minutes of run dry a day at 700 rpm

•**Excessive sand** creating wear of the pump and accelerated loss of performance..

•**Lack of prime** once Becky Jane was in the water, requiring manual prime

•**Unreliable competitors pumps** would fail at any point no matter how much maintenance was undertaken. This was not only costly in spares and time but also effected quality of service to its customers.

### KPM Solution

Due to the extreme operating conditions KPM duplicated the boats setup in its test department to provide the best solution. The result was the KPM 40-Beta pump which was not only more robust but also had an extra 20% flow capacity engineered in to compensate for the more demanding conditions. The TIBS system ensured that prime could be maintained to a height of 12 feet via a strainer through 24 feet of pipe and cope with the back pressure created by the water trap. In addition the porting configuration allowed the smooth transfer of sand without damage to the pump. The pump has been a significant improvement to the operating efficiency of the generation plant. The KPM pump allowed Becky Jane to undertake **60 days of beach launches** and landings without failure. In late September KPM visited Becky Jane and up graded her twin engines to the Latest KPM generation pumps with a view to doubling her impeller replacement from **60 to 120 dry run landings**.

**The skippers verdict**" Thank you, for the excellent service it was fantastic. I don't know how you do it but these pumps are amazing, they work all the time every time. I don't even need to rev the engine to get prime, its there as soon as we hit the water. I don't understand how the impellers don't break up Brilliant!!!.

**Increased pump life** due to reduced wear and stress on bearings

**Increased Impeller Life** with no reported failures to date.

**Increased Run dry** capability exceeds SOLAS requirements.

**Reduced wear** in sandy water.

**Reduced spares cost** and save £££'s.

**Eliminate winter stick.** No failure reported

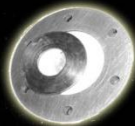
**Improved long term Prime** even after run dry.



Photo's Courtesy Becky Jane Owner



Endurance  
Rebuild Kits



Endurance Engine  
pumps



Run dry Bilge  
Pumps



Multi Point  
Bilge pumps



Filtration &  
Pollution control

