

October 26, 2007

MBARI
Moss Landing, CA

Attn: Brett Hobson, Mechanical Engineer
Ref: R/V: Western Flyer ROV LARS Upgrade
Allied Quote # 3661a

Mr. Hobson,

This quote is for the ROV handling system upgrade on board the R/V: Western Flyer. This is for (1) Allied Marine Crane **TK22-25** designed and built to criterion established in prior talks. This crane system will have the following features: See General Arrangement Drawing 58876.

- 1) A telescoping jib articulating(knuckle) boom slewing crane Allied model TK22-25, to handle a design load of 23,780lbs. This crane will have a SWL of 23,780 lbs at 16 feet (jib retracted) in all positions and 12,000 lbs at maximum outreach of 25 feet.
- 2) Crane to have an estimated weight of 10,000 lbs including winch, not to exceed 11,000lbs
- 3) Allied CT 22 constant tension winch system with 1000lbs line pull. Winch capacity of 22,000 lbs line pull in hoisting mode.
- 4) Crane to bolt to existing foundation.
- 5) Crane to operate using customers existing hydraulic power unit.
- 6) A basic operators platform with manual hydraulic crane controls mounted on right side of crane turret.
- 7) Marine epoxy coating system to reduce the affects of salt water environment (white).
- 8) Stainless steel hose ends and fittings up to #20 hose.
- 9) Stainless fasteners will be used for non-critical hardware.
- 10) Maintenance free synthetic bushings will be used.
- 11) Crane shall be capable of connecting with customer supplied Dynacon ROV Docking Head.
- 12) Reeving to be determined by customer.
- 13) Three swing drives with automatic spring applied brakes to meet DLF requirement of 15ton-m slewing moment.

A) Price for one unit (Ex-Works, Sherwood, OR) \$ 225,800.00

B) Shipment would be in May 2008.

D) Preferred payment terms are: 30% down with order
70% at completion of factory test

E) Service representative is available for installation and start-up assistance and would be under separate contract. Marketing to be available for this free of charge.



Allied Systems Company appreciates the opportunity to work with you on this project and I ask you to contact me if you have questions concerning this quotation.

John Adams

Marketing Manager
Allied Systems Company
503-625-2560 ext. 484

john.adams@alliedsystems.com