

GENERAL DESCRIPTION:

MJP in landing craft application



MJP's duplex stainless steel jet units are very well proven to be reliable when exposed to extreme conditions in the field.

MJP makes an all stainless steel product. The duplex stainless steel material is very strong against wear and corrosion. In a landing craft application the jet unit is exposed to extreme wear when the vessel is on the beach. Large amount of sand, stones and dirt is passing through the jet. MJP Waterjets are well proven to handle this tough treatment.

The MJP jet unit is very high performing due to the oil lubricated hub unit and flexible coupling for the floating drive shaft. These items are proven in this aggressive environment. The only standard item that has been changed for this delivery is the drive shaft seal. It has successfully been modified to materials that are used on dredgers.

Other jet suppliers use water lubricated bearings and wear liners at the impeller. Both are exposed the wear of sand and consumed very quickly in sandy conditions and are hence not suitable for this type of application or in e.g. muddy river conditions.

The prototype landing crafts were built in year 2001 and have been tested successfully since then. The first two vessels operated a period without grids. It became a nuisance to take out the stones that got stuck in the pump so yard designers decided to fit grid. The astonishing fact is that the stones didn't cause any damage to the MJP pump. It is proving the strength and robustness of the MJP jet.





In 2006 the vessels equipped with MJP 650 CSU jets were used by UN peace keeping forces. They belong to a system with one mother transport ship and six landing crafts. Their mission is to launch personnel and vehicles on beaches.

The delivery is complete with jets, hydraulic and electronic control system. The installation operates on 24 VDC only and requires no AC current.



The large difference in ship speed between loaded and unloaded condition is possible with waterjets. A propeller cannot be used in this application since the rpm variation with ship speed will not absorb power of the diesel engine or cause damage to the same. A landing craft is very nice example of an application where waterjets is showing many of its advantages over conventional propulsion:

- Propulsive Efficiency
- Protected Propulsion
- Shallow Draft
- Low Vibrations
- Manoeuvrability
- Smooth engine load
- Low waterborne noise

The landing craft is a successful development of a traditional landing craft including and proving MJP waterjets superior cavitation margin and thrust.



Marine Jet Power AB, SE-748 01 Österbybruk, Sweden

Phone: +46 295 244 250 • Fax: +46 295 244 260
www.mjp.se