

## Intro

The Castoldi water jet unit type *Jet 05* is a versatile marine drive propulsion system that has experienced continued success since its introduction in 1970.

Thousands of units have been installed on different types of boats and this experience has led to numerous improvements resulting in a finely tuned and reliable unit.

*Jet 05* casting is made of super tough light weight special aluminium alloy for marine use protected by the most sophisticated anti-corrosion finish possible, being hard anodized up to 60 micron and becoming very durable. The most important parts as impeller, impeller housing liner, shafting etc are manufactured in high grade stainless steel.

*Jet 05* has several features that make this model stand out from other marine propulsion units:

**Built in gear box** for adapting the power and RPM characteristics of the engine to jet drive.

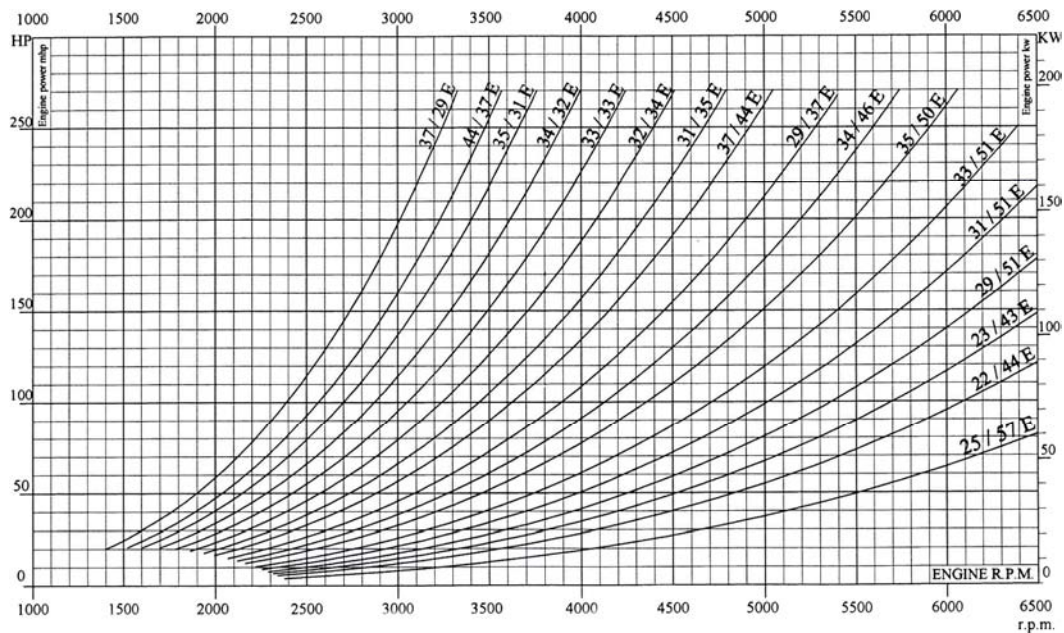
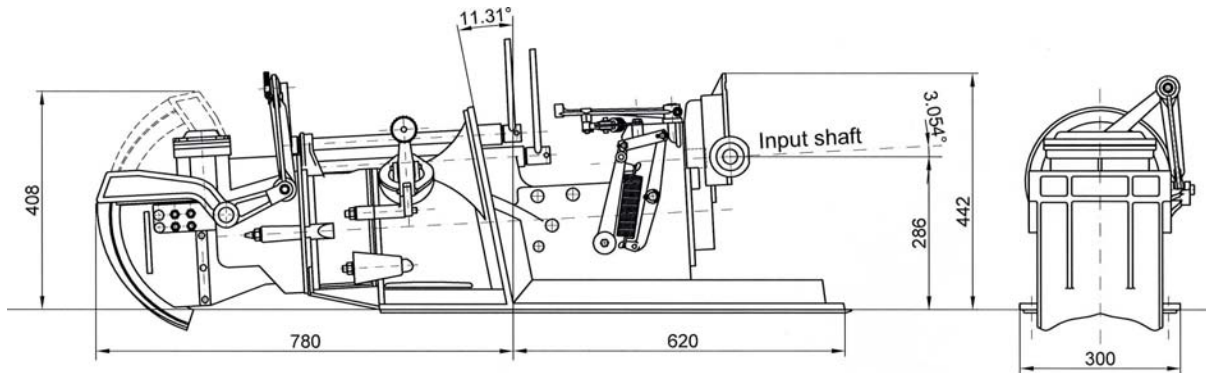
**Positive clutch** for engaging and disengaging the impeller.

**Remote operated movable debris screen rake** for protecting and cleaning the jet unit water intake.

**All oil lubricated bearings.**

## Technical data

Max power input	175 Kw (238 HP)
Impeller diameter	200 mm (at inlet)
Dry weight (waterjet unit complete)	75 Kg
Transom angle	11° 30'
Volume of entrained water	17,5 lts
Oil volume in integrated gear box	4 lts
Maximum recommended displacement tons	1 UNIT : 1,5 2 UNITS : 3,7
Water pump type	Three blades, single stage, axial flow
Built-in gear box	With No. 17 gear wheels ratio available
Water jet's impeller disconnecting/connecting system	Positive clutch mechanically operated
Drive shaft rotation	CW seen from inboard towards outboard
Bearings	All oil lubricated
Inspection hatches	No. 2 outboard
Water intake protection	Debris screen grid with movable double set of hydrodynamically profiled bars
Nozzle	Standard with 4 blades
Hydraulic actuators	All inboard mounted on jet unit
Hydraulic power unit and accessories	Built in hydraulic pump, rams and valves
Hydraulic steering	Hydraulic helm
<b>Main parts' materials</b>	
Impeller	Durethan or AISI 316 L stainless steel micro casted
Impeller shaft	Aquamet 17 (17,4 PH) stainless steel
Input shaft	39 Ni.Cr.Mo.3. high grade steel
Steering and reversing shaft	AISI 316 L stainless steel
Impeller	AISI 316 L stainless steel
Impeller housing wear ring	AISI 316 L stainless steel
Stator blades with nozzle steering and reversing deflectors	G.Al.Si.7 marine grade aluminium alloy
Water jet body with gear case and impeller housing	G.Al.Si.9 marine grade aluminium alloy
Finishing and protection against corrosion	Hard anodising treatment (60 Micron) on all the aluminium alloy parts : <ul style="list-style-type: none"> <li>• 3 layers of special paint.</li> <li>• Cathodic protection with sacrificial zinc anodes</li> </ul>



The above curves show the power absorption characteristics for the range of gear wheels ratio available.  
 The engine maximum flywheel power/r.p.m. output should lie within the area between 37/29 and 25/57 ratio.

For matching a given engine, the proper gear ratio is indicated on the diagram by the curve close to the intersection point resulting from the engine net power and its operating r.p.m. When the point lies at the middle between two curves, the left curve's ratio is recommended in order to not exceed the engine maximum r.p.m.

## CONTROLS' TYPES

- Mechanical
- Mechanical/Hydraulic
- Electric/Hydraulic