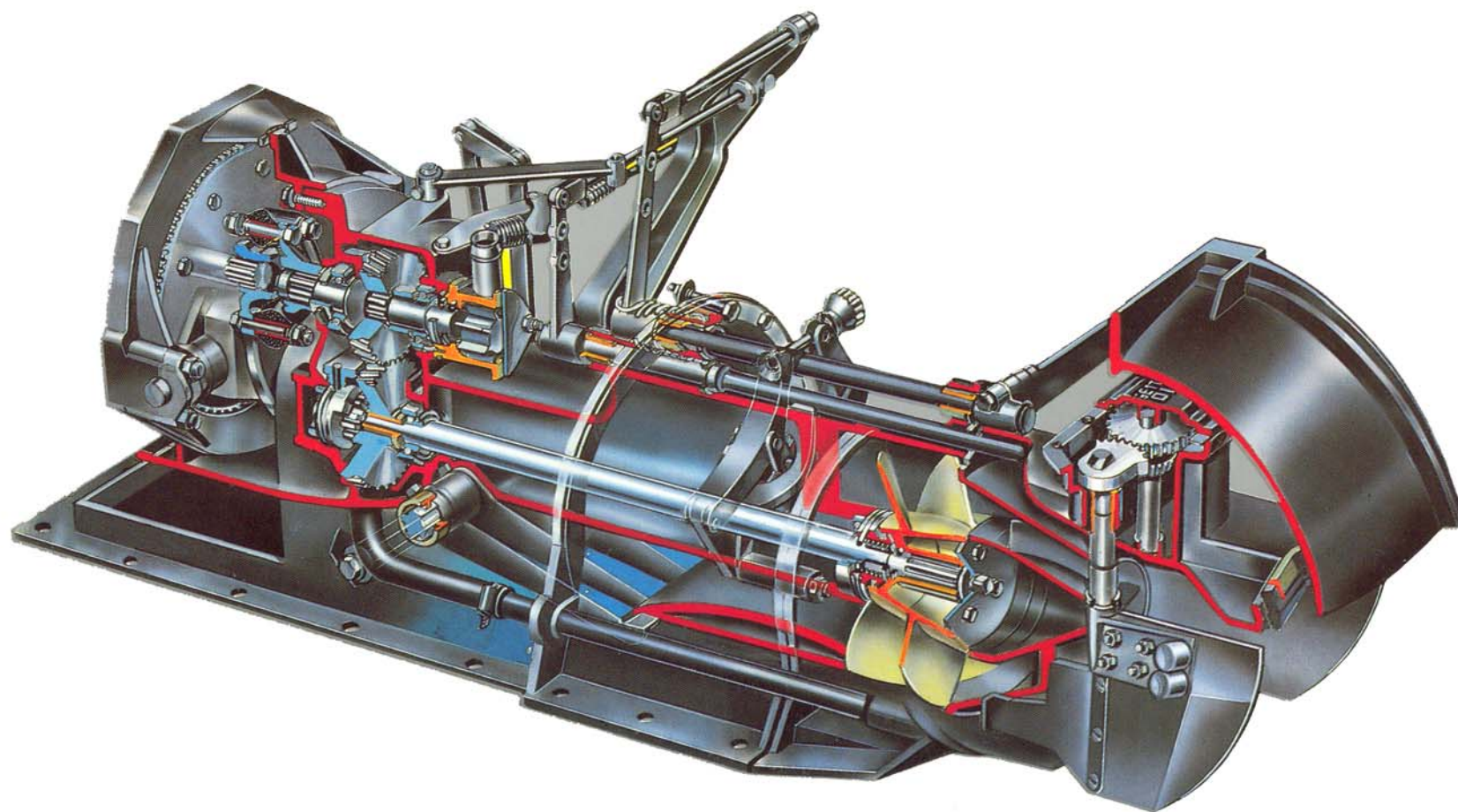
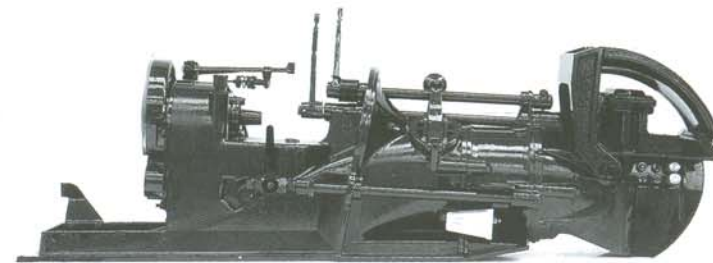
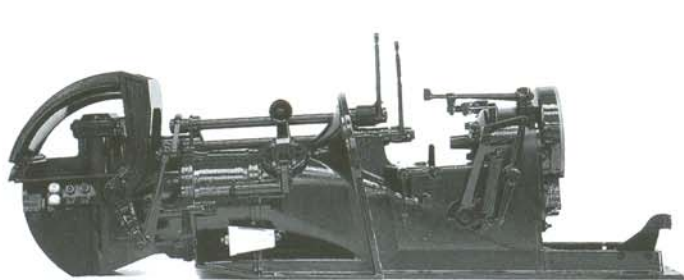


# CASTOLDI JET

# JET 05

*Highly efficient, heavy duty, complete marine water-jet propulsion unit for commercial, military and pleasure boats.*





## SPECIFICATIONS

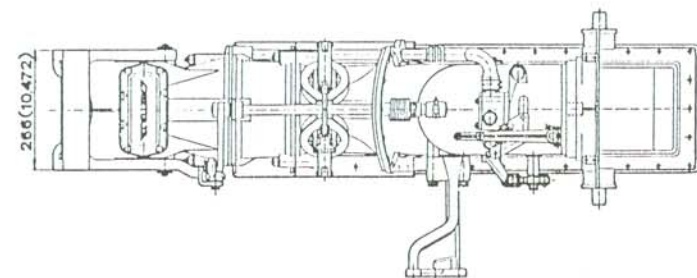
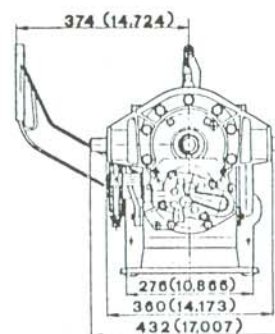
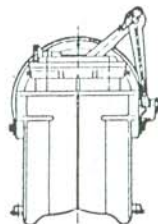
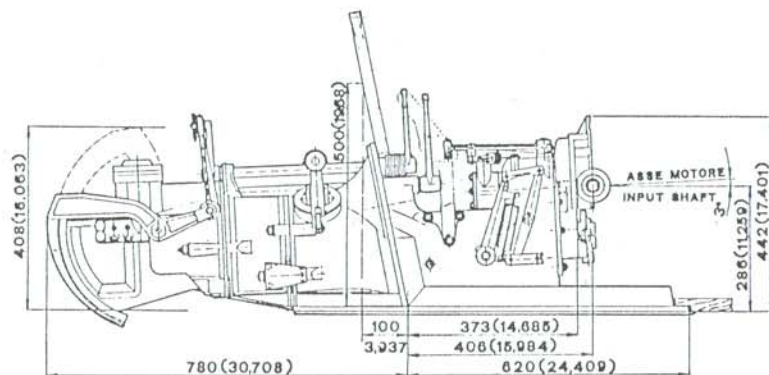
The Castoldi water jet unit type "Jet 05" is a versatile marine drive propulsion system that has experienced continued success since its introduction in 1970.

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 very reliable unit.

Jet 05 casing is made of super tough light weight special aluminum alloy for marine use which is given the most sophisticated anti-corrosion finish possible being hard anodized up to 80 Microns and becoming by this way very durable.

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

- **Built in gear box** for adapting power and R.P.M. characteristics of the engine to the jet drive.
- **Positive clutch** for engaging and disengaging the impeller.
- **Remote operated movable weed rake** for cleaning the jet unit water intake.



## II

### TECHINICAL DATA

- Pump type: axial flow
- Impeller diameter (at the inlet): 200 mm.
- Impeller blades: n. 3
- Suitable engines: Gasoline or diesel engines with power from 30 to 170 HP (16 up to 125 Kw).  
Depending on boat characteristics; R.P.M.'S from 1.000 to 6.000 depending on engine power.
- Unit weight (dry) 75 Kg. (73,5 daN)
- Volume of water contained in the jet duct: 17,5 liters.
- Volume of oil contained into the gearbox: 4 liters.
- Transom angle: 11° 30'
- Rotation of the Jet unit gears shaft: clockwise looking the front of the unit.
- Direction of shaft rotation of suitable engines: counter clockwise only.
- Costruction materials:
  - Casing: Aluminum alloy
  - Impeller: Stainless steel or Durethan
  - Impeller shaft: Stainless steel
  - Gear wheels: Steel
  - Impeller housing: Aluminum alloy
  - Corrosion protection:
    - A) Hard anodizing treatment on the unit (up to 80 Microns).
    - B) 4 layers of special paint.
    - C) Cathodic protection with zinc anods.

## III

### STANDARD FITTINGS

- Durethan impeller
- Movable intake grid
- Positive clutch
- Built in gear box with set of helical cut gear wheels with suitable ratio to match the selected engine
- Set of zinc anods
- Hydraulic pump (for versions with electronic-hydraulic controls)

## IV

### CASTOLDI JET 05 ADVANTAGES

- Higher top speeds for planing boats.
- Limited in board room requirement.
- Outstanding manoeuvrability at all speed.
- Easy installation.
- The widest operating range, from offshore to shallow inshore waters.
- The maximum active and passive safety.
- Low under water noise.
- Power braking ability.
- Absence of vibrations caused by propellers, V drives and axes subjected to bending and torsional stresses.
- Maximum reliability, low vulnerability endurance.
- Minimum service requirement.
- Easy maintenance.



## SCOPE OF USE

### 1) Planing boats

Capable of at least 20 Knots. Degress of deadrise of the hull at the tansom not less than 3 and more than 18 (suggested).

1 x Jet 05	2 x Jet 05	Planing Boats
1.500	3.650	— Maximum suggested A.U.W. (Kg) (All Up Weight of the boat, means its full displacement including people, fuel, equipment)
5/5,6	6.5/8	— Average lenght of the boat (meters)
14	17	— Maximum suggested weight to power ratio (Kg per horse power)
170 (125 Kw)		— Maximum suggested power input HP (Kw)

### 2) Semi-planing boats

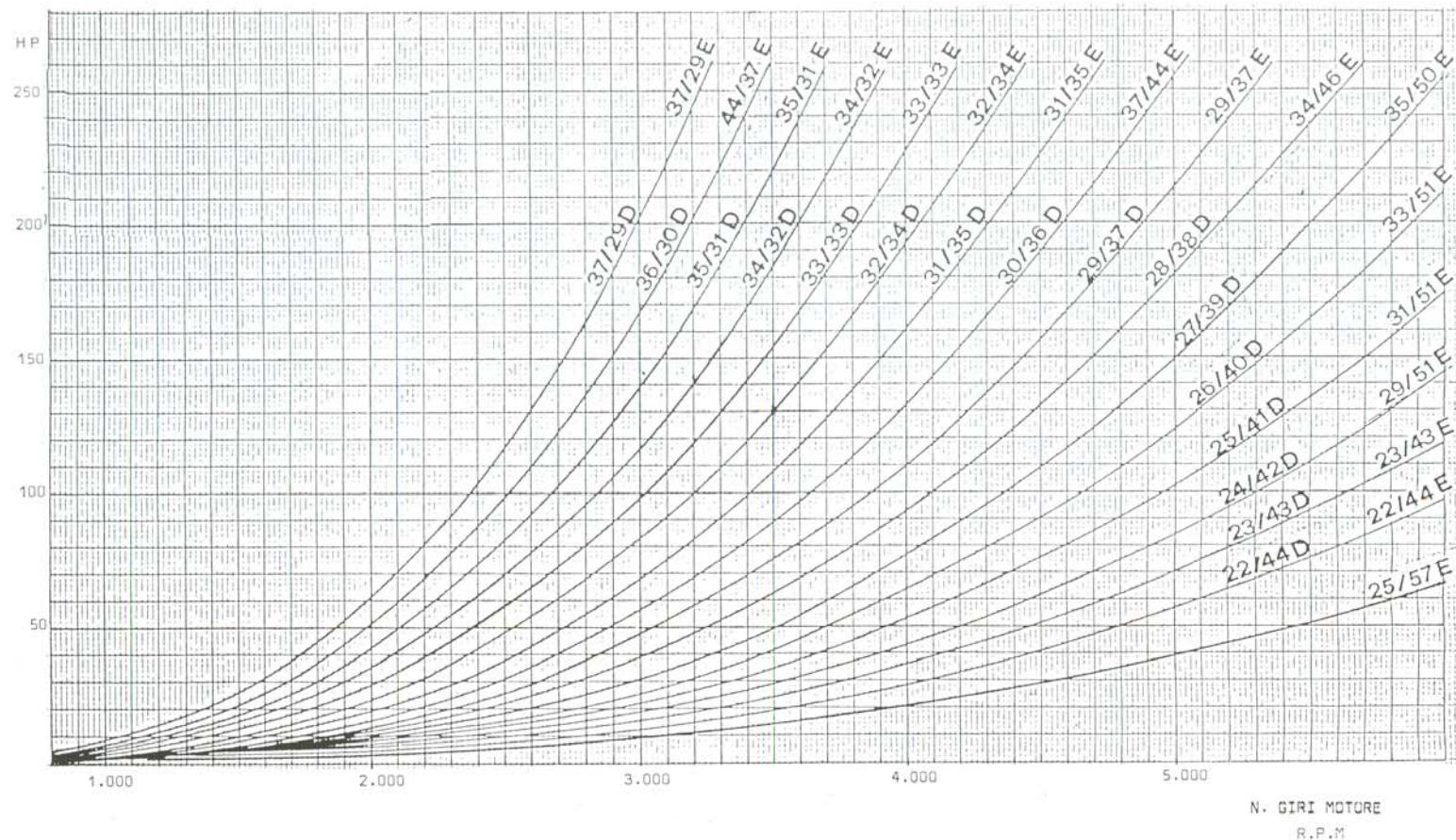
Hull drag for these boats is usually higher than for planing ones.  
Therefore a lighter A.U.W. than for planing boats should be considered.

### 3) Displacement boats

For these boats, the speed depends more on efficient hull shape than on input power or A.U.W.

The input power should not exceed the bollar power value.  
A.U.W. can be increased for efficient long and narrow boats.

1 x Jet 05	2 x Jet 05	Displacement Boats
2.600	6.000	— Maximum suggested A.U.W. (Kg)
75 (55)		— Maximum suggested power input HP (Kw)



## GEAR WHEELS RATIO SELECTION CHART

To match a given engine with the proper gear ratio, first locate net horse power of engine on horizontal grid line, then locate operating R.P.M. on vertical grid line. The point of intersection of the two grid lines will indicate the correct jet gear ratio for the horse power and operating R.P.M. of the engine.



## EQUIPMENT

A full line of exclusive controls specifically developed to allow the best use of Castoldi water jet units.

### SINGLE INSTALLATION: MECHANICAL CONTROL

#### A) For side steering position

- 1 - Castoldi single lever box for reversing gate, clutch and throttle control with cables.
- 2 - Castoldi stainless steel steering wheel with support, pinion and rake with cable.
- 3 - Handle or pedal for weed rake control with cable and sheathing.
- 4 - Water pressure gauge.

#### B) For central steering position

- 1 - Castoldi twin lever box for reversing gate control with cable and for throttle control with push-pull cable.
- 2 - Ultraflex single lever for clutch control with push-pull cable.
- 3 - Castoldi stainless steel steering wheel with support, pinion and rake with cable.
- 4 - Handle or pedal for weed rake control with cable and sheathing.
- 5 - Water pressure gauge.

### TWIN INSTALLATION: MECHANICAL CONTROL AND HYDRAULIC STEERING SYSTEM

- Castoldi twin lever box for 2 reversing gates independent proportional control with cables.
- Ultraflex twin lever box for 2 throttles independent control with push-pull cables.
- N° 2 Ultraflex single levers for 2 clutches independent control with push-pull cables.
- Castoldi stainless steel steering wheel with Vetus hydraulic steering.
- Coupling kit.
- N° 2 weed rake control systems by handles or pedal with cables and sheathings.
- N° 2 water pressure gauges.

### TWIN INSTALLATION: ELECTRONIC-HYDRAULIC CONTROL ONLY

- Castoldi twin lever box for 2 reversing gates coupled, proportional control and for 2 throttles independent control.
  - Reversing gates electronic-hydraulically operated with electronic unit, electro valve 12/24 V., hydraulic ram and electrical connections.
  - Throttles control with push-pull cables.
- Castoldi twin lever box for 2 clutches independent control with push-pull cables.
- Hydraulic steering system with: Castoldi stainless steel steering wheel, support, hydraulic connection block, copper pipes, hydraulic ram.
- Rudders connecting rod.
- N° 2 weed rake control system by handles or pedals with cables and sheathings.
- N° 2 water pressure gauges.

### TO ORDER, QUOTE

- Max. brake horse power and corresponding R.P.M. of the engine.
- Electro-valve voltage (12 or 24 V.)
- Required optional equipment.
- Length of cables and copper pipes.
- The selected weed rake control.



## OPTIONAL EQUIPMENT

- Stainless steel impeller.
- Water pump for engine cooling.
- Extension in length of cables and copper pipes (cables from 2 m. up, copper pipes from 8 m. up).
- Twin station control kit (with electronic hydraulic controls only).
- Engine flywheel adaptors.
- G.W.B. cardan shafts or Uni-Cardan constant velocity joints.
- Water pick up for engine cooling.
- Kit for direct coupling of the Jet to prepared engines (VM HR series diesel engines).
- Kit for direct coupling of the bob engines (at flywheel) to the jet unit (Volvo Penta AQ 230 A, AQ 250 B, AQ 251A DOHC, gasoline engines).
- Flexball cables (for reversing gates control in twin installation).





CASTOLDI S.p.A. withold the right to introduce, at any time and without previous notice, such modifications of components and accessories as might be deemed necessary for technical or commercial reasons, without any obligation to bring up-to-date this leaflet

**CASTOLDIJET**

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