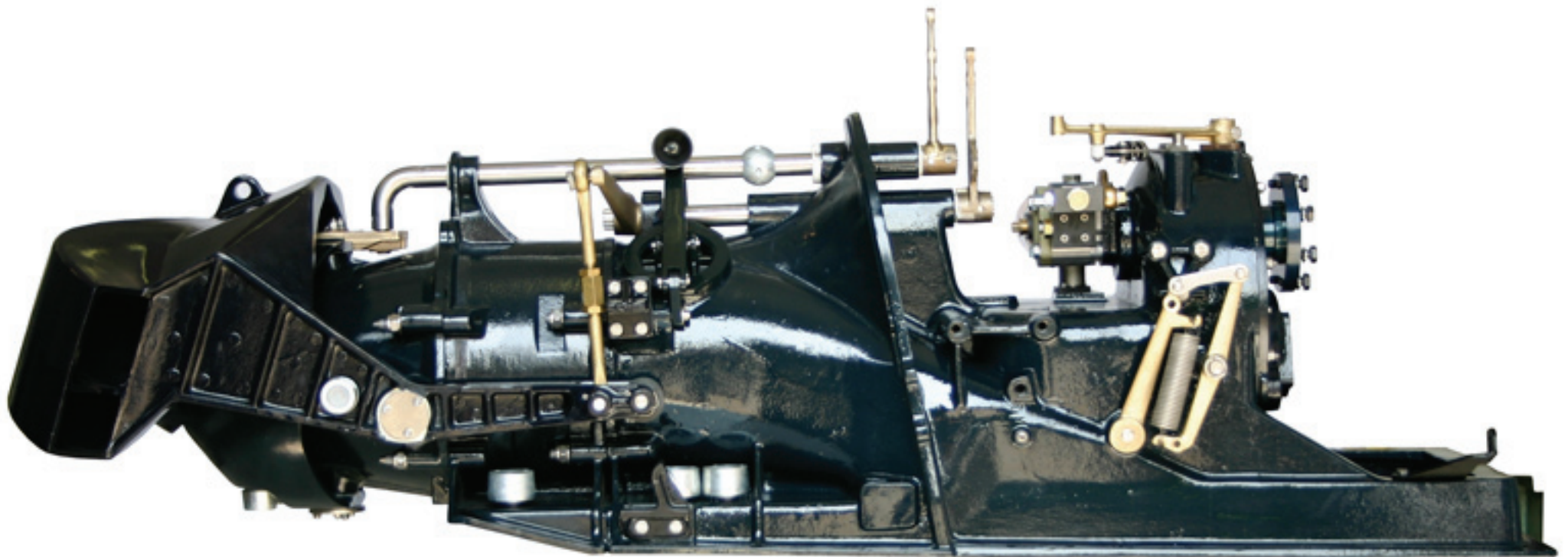


CASTOLDI JET

JET 282

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





SPECIFICATIONS

The Castoldi water jet unit type "Jet 282" is a versatile marine propulsion system that has experienced continued success since its introduction in 1973. Thousands of units have been installed on different types of boats and its experience has led to numerous improvements resulting in a finely tuned and very reliable unit. The Jet 282 casing is made of super tough light weight special aluminium alloy for marine use which has given the most sophisticated anti-corrosion finish possible being hard anodized up to 80 Microns creating an extremely durable unit. Whilst the most crucial parts such as the impeller, impeller housing liner, shafts, and rudders are manufactured in stainless steel.

The Jet 282 has several features that make this model stand out from other other marine propulsion units.

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



II

TECHNICAL DATA

- Pump type: axial flow.
- Impeller diameter (at the inlet): 283 mm.
- Impeller blades: n. 3.
- Suitable engines: Gasoline or diesel engines with power from 70 to 350 HP (51,5 up to 257 KW).
- Depending on boat characteristics: R.P.M'S from 1.000 to 6.000 depending on engine power.
- Unit weight (dry): 196 KG. (192 daN).
- Volume of water contained in the jet duct: 52 Liters.
- Volume of oil contained into the gearbox: 11 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.
- Construction materials:
 - Casing: Aluminum alloy.
 - Impeller: Stainless steel.
 - Impeller shaft: Stainless steel.
 - Gear wheels: Steel.
 - Impeller housing liner: Stainless steel.
 - 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

- Stainless steel impeller.
- Stainless steel liner on impeller housing.
- 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 anodes.
- Hydraulic pump (for versions with electronic-hydraulic controls).
- Shocks absorber.

IV

CASTOLDI JET 282 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. Degrees of deadrise of the hull at the transom not less than 3 and not more than 18 (suggested).

1 x Jet 282	2 x Jet 282	3 x Jet 282	Planing Boats
3.700	9.050	15.200	— Maximum suggested A.U.W. (Kg) (All Up Weight of the boat, means its full displacement including people, fuel, equipment)
7/8	10/12	12/14	— Average length of the boat (meters)
17	21	24	— Maximum suggested weight to power ratio (Kg per horse power)
	350 (257)		— 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.

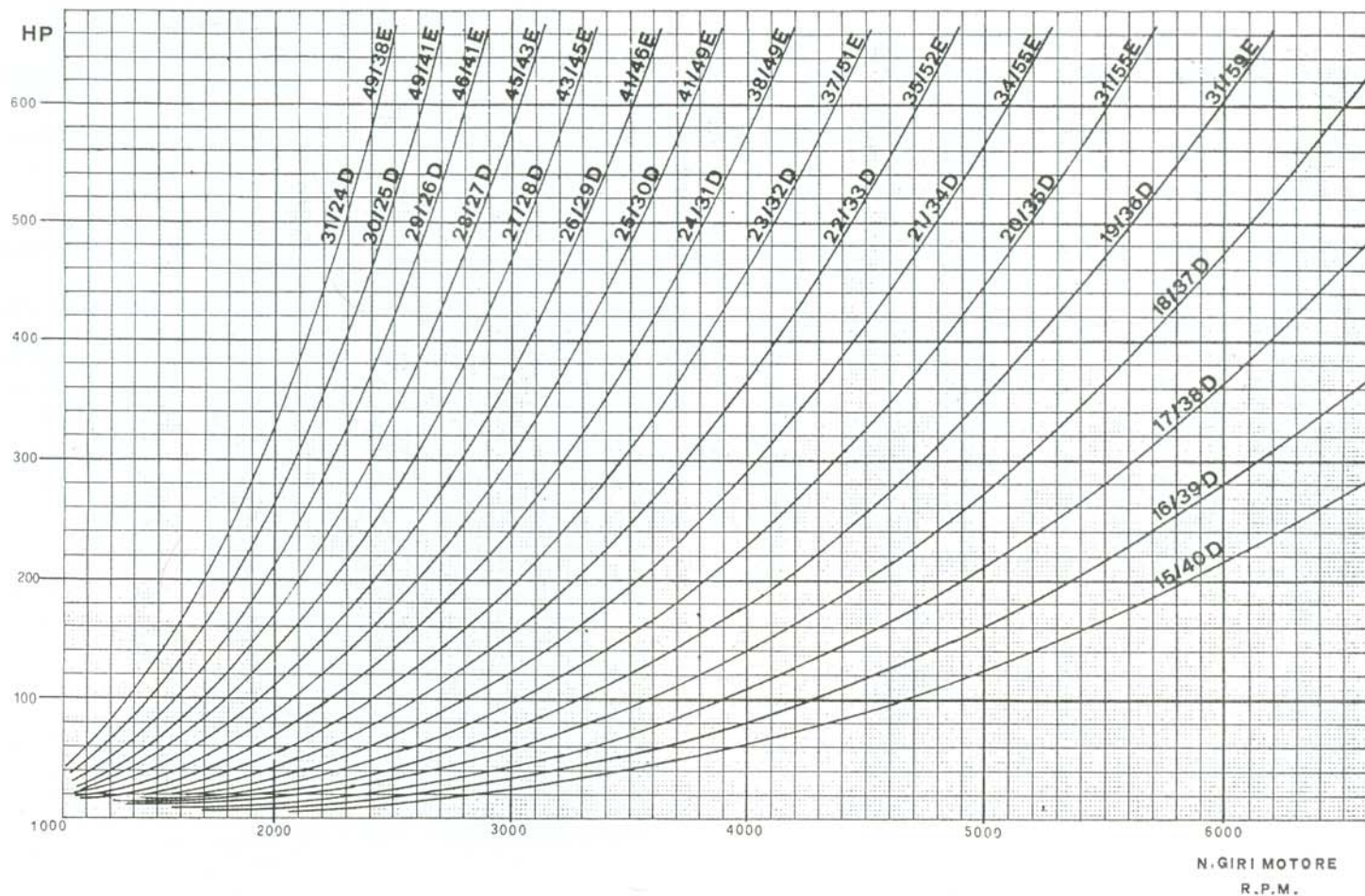
3) Displacement boats

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 bollard power value.

A.U.W. can be increased for efficient long and narrow boats.

1 x Jet 282	2 x Jet 282	3 x Jet 282	Displacement Boats
6.500	15.000 150 (110)	34.000	— Maximum suggested A.U.W. (Kg) — 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.

Diagrams which have been experimentally determined with a laboratory boat are furthermore available:

- Diagram showing the Water Power as a function of boat speed.
- Diagram showing Jet dynamic thrust curves.



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.*

SINGLE INSTALLATION: ELECTRONIC-HYDRAULIC CONTROL

- Castoldi twin lever box for reversing gate, throttle and clutch control.*
- Reversing gate electronic-hydraulically operated with electronic unit, electro valve 12/24 V. with connector, hydraulic ram and electrical connections.*
- Clutch control with push-pull cable.*
- Throttle control with push-pull cable.*
- Hydraulic steering system with: Castoldi stainless steel steering wheel, support, hydraulic steering system with copper pipes.*
- Weed rake control system by handle or pedal with cable and sheathing.*
- Water pressure gauge.*

TWIN INSTALLATION: ELECTRONIC-HYDRAULIC CONTROL ONLY

- Castoldi twin lever box for 2 reversing gates and 2 throttles independent control.*
- Reversing gates electronic-hydraulically operated with 2 electronic units, 2 electro valves 12/24 V., 2 hydraulic rams 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 systems by handles or pedals with cables and sheathings.*
- N. 2 water pressure gauges.*

VIII

OPTIONAL EQUIPMENT

- Extension in length of cables and copper pipes.
- Twin station control kit (with electronic hydraulic controls only).
- Engine flywheel adaptors.
- G.W.B. cardan shafts or Uni-Cardan constant velocity joints.

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.





CASTOLDI S.p.A. withhold 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

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