



WE MAKE **BOATS** **PERFORM** **BETTER.**

Norman R Wright & Sons - Custom 60 Game Boat
"Aura"



Project

Norman R Wright & Sons

CUSTOM 60 GAME BOAT "AURA"



Tony Riek – Managing Director

NORMAN R. WRIGHT AND SONS HAS A LONG STANDING REPUTATION FOR BUILDING HIGH QUALITY CUSTOM BOATS. HOW MANY GAME BOATS HAVE YOU BUILT PREVIOUSLY?

"Aura" is a custom built 60, the first we have built to this size but based on a 58 game boat we built that lives on Sydney Harbour called "Eagle" and a similar build 60 called "Weapon" that lives in WA.

DID YOUR CLIENT SPECIFY THE ENGINEERING EQUIPMENT?

Our client specified Caterpillar C32 engines and having worked with Twin Disc before we knew their MGX transmissions would work best coupled with these engines. Our client built the boat specifically for game fishing and requested Palm Beach controls for the tower and the EC300 controls with trolling option and when combined with the transmission offer "dead stop" as required.

The client also requested the Seakeeper 16, not having had one before but understanding the comfort they offer when out on the water.

Project Details

Products Supplied and Fitted

- MGX-6620A Quickshift Transmissions
- EC300 Quickshift electronic controls
- EC300 Quickshift electronic Palm Beach controls
- Seakeeper 16

HOW HAVE THE PRODUCTS PERFORMED?

We had a few technical challenges getting the Palm Beach controls to integrate but we worked closely with the Twin Disc Engineers to ensure they worked as required. The client is very happy overall.

WHAT WAS THE TWIN DISC SALES AND SERVICE EXPERIENCE LIKE?

We've built a number of commercial ferries in the past using Twin Disc equipment so we're used to working with their team and products. Overall very happy with the products and service experience.

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AN OWNERS PERSPECTIVE

Why did you decide to build a custom sports fishing boat versus buying a production brand?

We wanted something special, a custom boat gave us that and Wrights certainly delivered.

From a performance perspective what was it specifically you were looking for?

We wanted the best game-fishing boat we could build, speed, performance and built to fish in Australian conditions.

The Quickshift transmissions have a strong reputation for harnessing the horsepower from large engines and ensuring optimal performance, have you been happy with the Quickshift gearboxes, and what specifically do you like about the way they manage the horsepower available from your caterpillar C32's?

We had them in our previous boat and they have been great, versatility for all our different speed requirements

The Palm Beach controls are an interesting addition and teamed with the Twin Disc EC300 Controls, why did you specify them specifically and have you been happy with their operation?

For game-fishing the Palm Beach controls are a must and integration on the bow thruster controls into the levers works really well.

Seakeepers offers exceptional stability control, why did you specifically request a Seakeeper for your boat? How has it performed versus boat you may have had previously without gyro stabilisation?

I can not imagine there will be many boats in the future without one, in rough conditions they make such a difference to peoples fishing experience.

Overall what would you say to someone considering the Twin Disc or Seakeeper product ranges?

Do it.

TWIN DISC PACIFIC PTY LTD

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Virginia QLD 4014 Australia

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Web: www.twindisc.com.au

Email: info@twindisc.com.au

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CUSTOM 60 GAME BOAT "AURA"

SPECIFICATIONS

LOA:	60'
BEAM:	19'3"
DRAFT:	4' 7"
DISPL:	76,000 lbs (34.6 metric tonnes)
SPEED:	40 knots
FUEL:	1,800 US GAL.
WATER:	160 US GAL.
ENGINES:	2 x 1825HP C32 Cat ACERT
Gensets:	2 x 19kVA Onan
Stabiliser:	Seakeeper 16
Electronics:	See description



DESIGN

The boat is completely designed in-house as we have been doing so since 1909.

None of our boats are built in permanent moulds, so every aspect is custom built to suit each clients specific requirements with every boat being designed and built specifically for each owner.

The hull is a warped planning hull with deep tunnels below the waterline with substantial flare forward above the waterline and was designed in conjunction with the world's foremost performance planning hull designer Donald L. Blount & Associates (DLBA) in the USA.

The hull was optimised to be stable at speed and rest whilst fishing whilst retaining superior performance at speed in a seaway. This is achieved without the need for noisy hull bottom sprayrails or planning strakes.



The transom shape including large radiused corners was designed to facilitate backing up hard on fish

The brief was for a go anywhere serious sport fishing boat.

CONSTRUCTION

One-off temporary moulds were built for all main components including hull, deck, deckhouse, flybridge and console

The structure is designed by composite engineering experts ATL Composites to meet DnV-GL HSLC R1 High Speed Light Craft Rules

The hull bottom is designed for 2g loading and is infused with epoxy resin and e-glass either side of a high density Divinycell structural foam core providing the ultimate strength-to-weight structure. Topsides are also foam cored with the highly stressed and impact zones such as the chines, keel and stem all being solid GRP.

Engine bearers are a combination of carbon fibre and E-glass with epoxy resin and run the full length of the hull to provide a rigid hull

The hull is a monocoque construction with the hull shell providing the strength and rigidity with minimal internal framing to maximise usable space

The main deck, deckhouse and flybridge are all constructed in custom moulds using E-glass and epoxy either side of a Divinycell structural foam core.

EC300

POWER COMMANDER® ELECTRONIC CONTROLS

EXPRESS™ AND EXPRESS JOYSTICK SYSTEM® READY

The EC300 Power Commander® electronic propulsion control system is versatile, rugged and easy to install. The system is designed to interface with all popular electronic engines and transmissions.



SYSTEM FEATURES

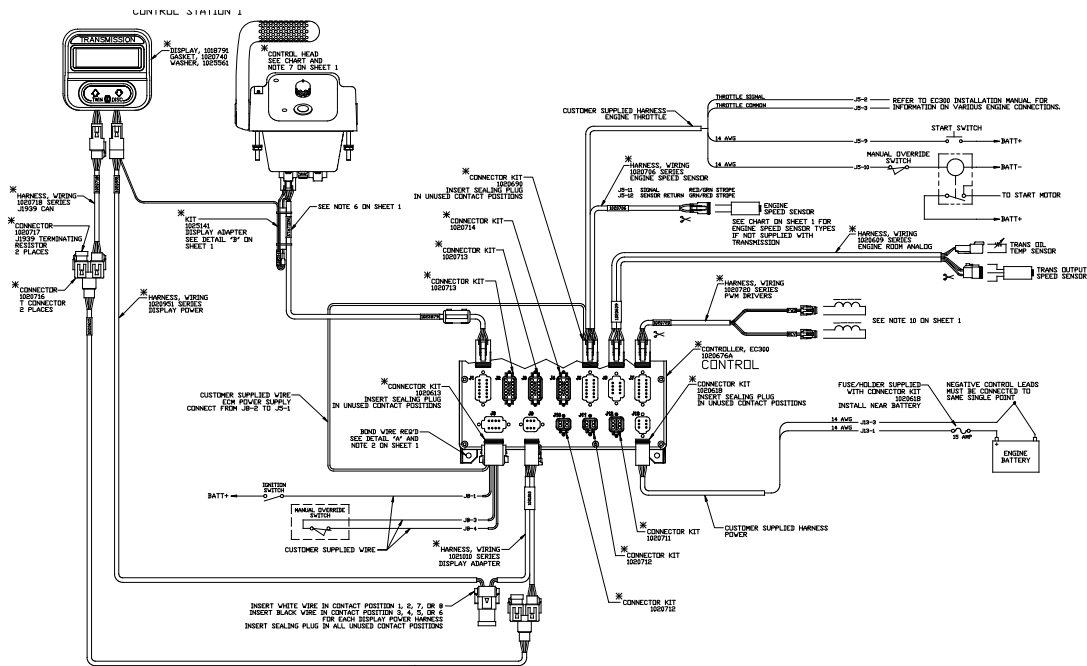
- Selectable station transfer rules
- Allows up to eight control stations
- Individual station active indicators
- Individual neutral status indicators
- 10 to 30 volt system power compatible
- J1939 or NMEA2000 data broadcasting
- Analog and digital control heads available
- Single lever controls for up to eight shaft lines
- System setup via keyboard or upload
- Selectable single or multi-lever synchronization
- Computer- or display-based setup and diagnostics

EC300

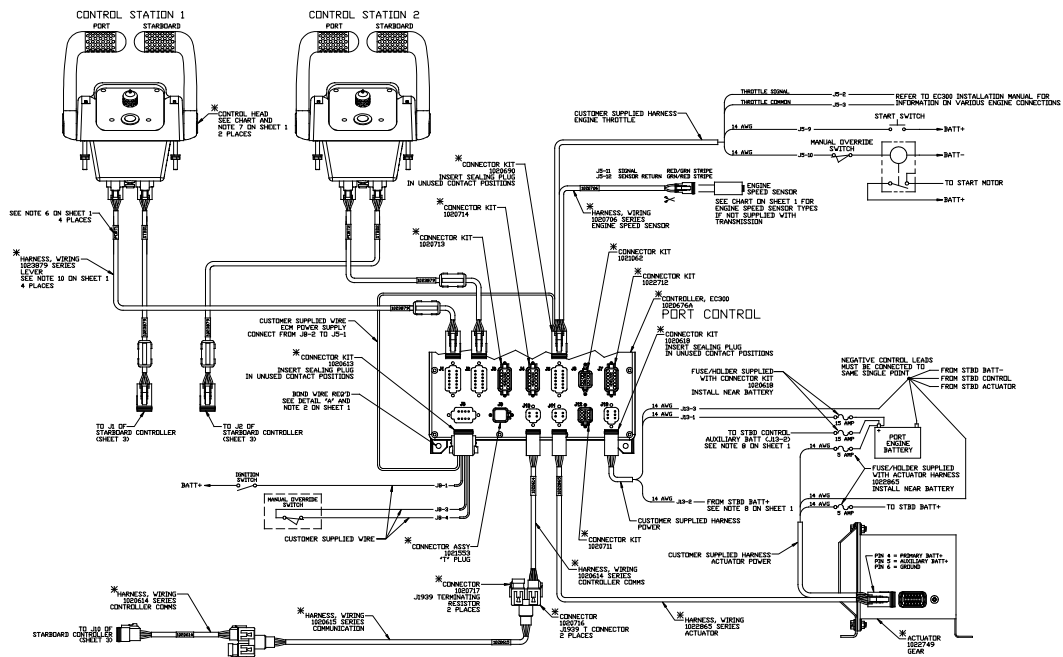
POWER COMMANDER® ELECTRONIC CONTROLS

EXPRESS™ AND EXPRESS JOYSTICK SYSTEM® READY

Single Engine Single Station



Twin Engine Two Station



Maximum 1566 kW (2100 hp) @2300 RPM (PLEASURE CRAFT)

STANDARD EQUIPMENT

MGX-6620SC

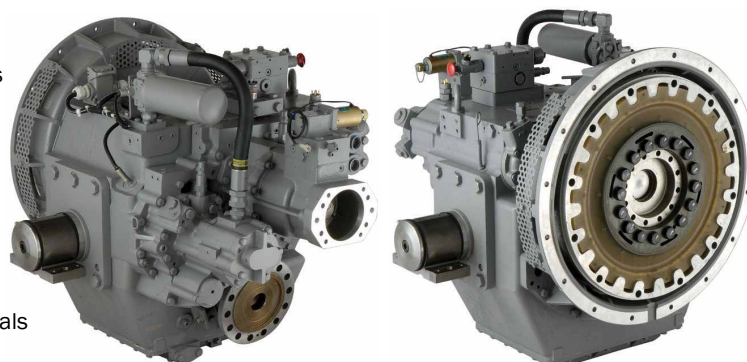
Vertical offset, aluminum housing
Electric GP-valve with manual override
EC050 Profile module – interface for engagement signals
Integral oil cooler for raw water cooling
Oil strainer and oil filter

MGX-6620A

Vertical offset, aluminum housing
10° down angle on output shaft
Electric GP-valve with manual override
EC050 Profile module – interface for engagement signals
Integral oil cooler for raw water cooling
Oil strainer and oil filter

MGX-6620RV

Remote V-drive, aluminum housing
10° down angle on output shaft
Input flange GWB 587.50
Electric GP-valve with manual override
EC050 Profile module – interface for engagement signals
Integral oil cooler for raw water cooling
Oil strainer and oil filter



QUICKSHIFT®
You've got to feel it to believe it.

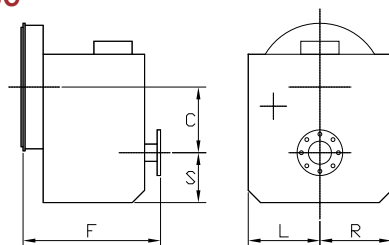
INPUT RATINGS - KILOWATTS (KW) (HORSEPOWER (HP))*

For service classification definitions and important notes refer to www.twindisc.com, the Twin Disc Marine Product Guide or contact Twin Disc directly.

MGX-6620SC	Reduction Ratios :1	Pleasure Craft @ 2300 RPM	Light Duty @ 2300 RPM	Intermediate Duty @ 2100 RPM	Medium Duty @ 1800 RPM	Continuous Duty @ 1800 RPM
	1.15	1566 kW (2100 hp)	1338 kW (1794 hp)	1166 kW (1564 hp)	960 kW (1287 hp)	898 kW (1204 hp)
	1.33, 1.53, 1.73		1417 kW (1900 hp)			
	2.03			1142 kW (1531 hp)	935 kW (1254 hp)	879 kW (1179 hp)
	2.32			1136 kW (1523 hp)		874 kW (1172 hp)
	2.44			1100 kW (1475 hp)	906 kW (1215 hp)	847 kW (1136 hp)
	2.72	1470 kW (1971 hp)	1338 kW (1794 hp)	1019 kW (1366 hp)	839 kW (1125 hp)	785 kW (1053 hp)
MGX-6620A & MGX-6620RV	Reduction Ratios :1	Pleasure Craft @ 2300 RPM	Light Duty @ 2300 RPM	Intermediate Duty @ 2100 RPM	Medium Duty @ 1800 RPM	Continuous Duty @ 1800 RPM
	1.55, 1.72, 2.09	1566 kW (2100 hp)	1417 kW (1900 hp)	1234 kW (1655 hp)	1021 kW (1369 hp)	950 kW (1274 hp)
	2.28, 2.42			1145 kW (1535 hp)	943 kW (1265 hp)	833 kW (1117 hp)
	2.73	1504 kW (2017 hp)	1330 kW (1784 hp)	1014 kW (1360 hp)	835 kW (1120 hp)	780 kW (1046 hp)

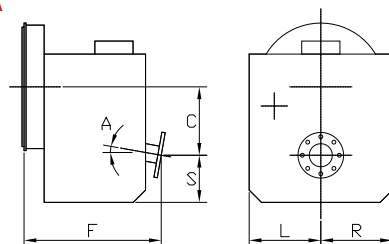
OPTIONS	MGX-6620SC	MGX-6620A	MGX-6620RV
SAE J617 housing no. 1	X	X	
SAE J617 housing no. 0	X	X	
Flexible coupling for 14" flywheel (SAE J620 size 355)	X	X	
Flexible coupling for 18" flywheel (SAE J620 size 460)	X	X	
Input flange for freestanding installation	X	X	standard
EC050 E-Troll module – interface for engagement & trolling signals	X	X	X
Harness with single point interface to Twin Disc			
EC300 control system	X	X	X
Output shaft driven trailing pump	X	X	X
Companion flange/bolts set	X	X	X
Monitoring devices to customer's specification	X	X	X
Mounting brackets	X	X	X
Live PTO			
SAE J744 size 101-2, 25-4 (SAE "B-B", 2-bolt) max. 337 Nm	X	X	X
SAE J744 size 127-4, 32-4 (SAE "C", 4-bolt) max. 600 Nm	X	X	X
Hydraulic Clutchable PTO			
SAE J744 size 127-4, 32-4 (SAE "C", 4-bolt) max. 600 Nm	X	X	X
Secondary live PTO for power steering pumps			
SAE J744 size 101-2, 22-4 (SAE "B", 2-bolt) max. 75 Nm Or	X	X	X
SAE J744 size 82-2, 16-4 (SAE "A", 2-bolt) max. 75 Nm	X	X	X
Dry weight incl. SAE #0 housing and SAE 460 flexible coupling	575 kg	580 kg	510 kg

MGX-6620SC



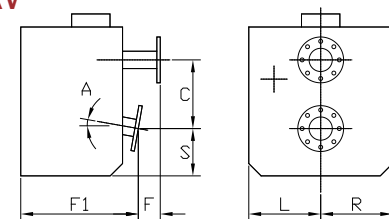
C	235 mm (9.25")
S	235 mm (9.25")
F	698 mm (27.48")
L	340 mm (13.39")
R	340 mm (13.39")

MGX-6620A



C	316 mm (12.44")
S	184 mm (7.25")
F	653 mm (25.71")
L	340 mm (13.39")
R	340 mm (13.39")
A	10°

MGX-6620RV



C	316 mm (12.44")
S	184 mm (7.25")
F	129 mm (5.06")
F1	603 mm (23.74")
L	340 mm (13.39")
R	340 mm (13.39")
A	10°

SEAKEEPER® 16

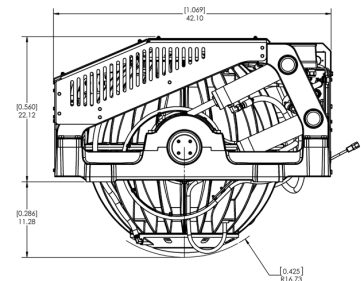
Crafted for 60'-69' boats, up to 50 tons, the Seakeeper 16 is designed to eliminate up to 95% of boat roll. The Seakeeper 16 is completely internal, requires only modest electrical power, and can be installed virtually anywhere on board.

TECH SPECS

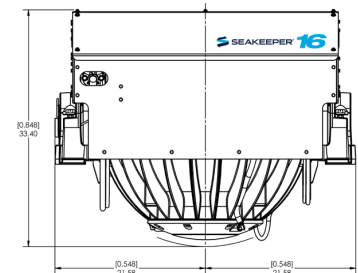
Rated Speed	6,130 RPM
Angular Momentum at Rated RPM	16,000 N-M-S
Max Anti-Rolling Torque at Rated RPM	30,720 N-M
Spool-up Time to Rated RPM	57 minutes (6,130 RPM)
Spool-up Time to Stabilization	45 minutes (5,210 RPM)
Spool-up Power	
AC Motor	3000 Watts Max
DC Control	240 Watts
Operating Power	
AC Motor (sea state dependent)	2300 - 3000 Watts
DC Control	240 Watts
AC Input Voltage	208 - 230 VAC (+/-10%), 50/60 Hz, Single Phase
DC Input Voltage	24 VDC @ 10 Amps
Sea Water Supply to Heat Exchanger	30 LPM (8 GPM) Maximum 15 LPM (4 GPM) Minimum
Ambient Air Temperature	0° - 60° C (32° - 140° F)
Weight	2,195 lbs (996 kg) Bolt-in Installation
Envelope Dimensions	Length x Width x Height 42.6 L x 43.2 W x 32.8 H (Inches) 1.08 L x 1.10 W x 0.83 H (Meters)
Noise Output	At full operating RPM, steady state noise measured in the factory at a 1 meter distance measures 68 - 73 dBC. (Sound levels may be higher during spool-up)



PORT VIEW



FRONT VIEW



TOP VIEW

