PROPELLER

CONTENTS

PROPELLER

What is a PROPELLER

Propeller selection is very important in the performance of your boat. Acceleration, speed, fuel efficiency, stability and engine RPM all are affected by the propeller selected. Operating requirements and conditions will also affect which design, style and pitch of propeller you may choose to meet your individual needs. The boat and engine combination may have already been tested by your dealer or the boat manufacturer for the appropriate propeller size. Your Suzuki Dealer can assist you with the process to determine the correct propeller for your application.

Stainless Steel Propellers

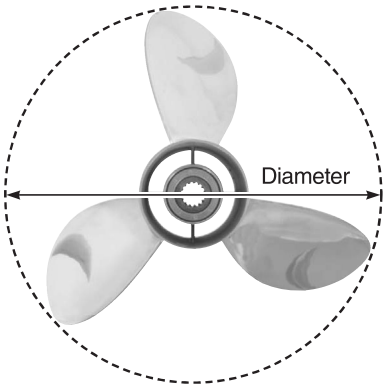
Suzuki Stainless Steel Propellers offer higher performance and greater durability than aluminum propellers. The aggressive design of these propellers enhances the overall performance of your boat and the durability of the stainless steel construction will give you long term dependability. Your Suzuki Stainless Steel propeller is also fitted with a rubber cushion hub to help absorb vibration and shock if it strikes an object.

Propeller Sizing

When referring to propeller size, such as 3 × 13 × 18, the first number is the number of blade, the second number details the diameter of the propeller and the third number is the pitch of the propeller. The pitch is the most significant number in the description. The diameter is usually predetermined by the propeller engineers and is based on the size and series of the engine.

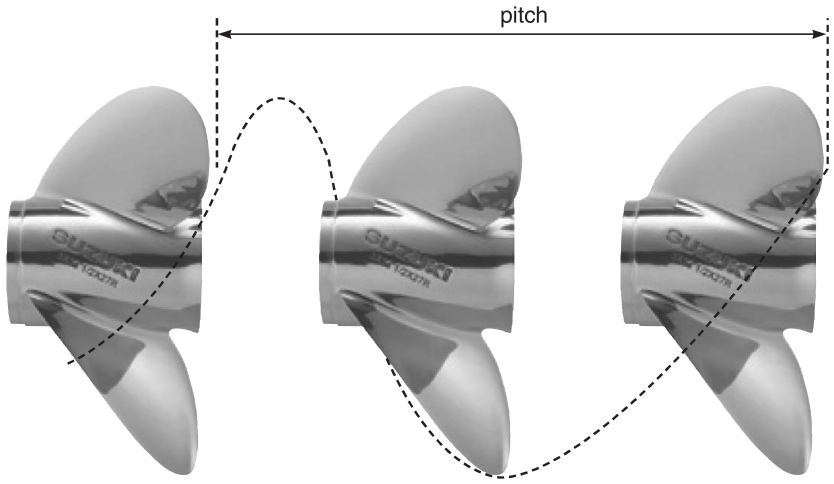
Diameter

Diameter is considered to be the distance across an imaginary circle that is made when a propeller is rotated. The diameter is determined during the engineering process of designing a propeller and is usually based on the requirements of the engine size, gear case design, horsepower and speed.



Pitch

Pitch is used to describe the theoretical distance that a propeller “cork screws” through the water in inches of forward travel. In theory, an 18” pitch propeller moves ahead 18” with each complete revolution. There is always some percentage of inefficiency as water conditions, boat weight and propeller style are introduced into the performance equation. The lower the “slip factor,” the more efficiently the propeller performs and the faster the speed at a given engine RPM. Lower pitches accelerate faster, but have a lower top end speed. Higher pitches have a slower acceleration, but may attain higher top speeds. An inch of pitch generally is equal to 150 – 200 engine RPM at wide open throttle (WOT). If pitch is increased by an inch, RPM decreases by 150 – 200 RPM at WOT. If pitch is decreased by an inch, RPM increases by 150 – 200 RPM at WOT. Always operate your boat/engine combination within the recommended RPM range listed in your operator’s manual. Operating outside the recommended range can cause severe damage to your engine and may void the engine warranty.



Propeller Cup

Cup is used to reduce the slip and ventilation of the propeller. This allows you to operate your engine at a higher transom mounting and allow you to use more trim for bow lift.

The cup refers to the area along the trailing edge of the propeller blade that has an increased pitch in the last 1/2” of the blade surface and extends to the blade tip.

Rake

Rake is described as the degree of angle that the propeller blades are mounted to the “barrel” of the propeller.

The blades of a propeller with zero-degree rake are mounted perpendicular to the “barrel” of the propeller.

The blades of a propeller with a higher rake angle more to the rear of the propeller.

A propeller with a high-rake design holds the water on the blades longer during operation and ventilates less at higher engine heights.

High-rake propellers produce higher thrust that helps to lift the bow of the boat more effectively.

PROPELLER SELECTION

Select a propeller that allows the engine to operate
with wide open throttle within the specified maximum rpm range.

NOTICE

Installing a propeller with either too much or too little pitch will cause incorrect maximum engine speed, which may result in severe damage to the motor.

Select a propeller that will allow the engine to reach the recommended operating range at full throttle with the maximum boat load.

RECOMMENDED FULL THROTTLE SPEED RANGE

Model	Full throttle operating range (r/min)
DF2.5	5250 – 5750
DF4A	4000 – 5000
DF5A	4500 – 5500
DF6A	4750 – 5750
DF8A	4700 – 5700
DF9.9A	5200 – 6200
DF9.9B	4700 – 5700
DF15A	5000 – 6000
DF20A	5300 – 6300
DF25A	5000 – 6000
DF30A	5300 – 6300
DF40A/40AS/40ASV	5000 – 6000
DF50A/50AV	5300 – 6300
DF60A/60AV	5300 – 6300
DF70A/75	5000 – 6000
DF80A	5000 – 6000
DF90A	5300 – 6300
DF100B	5700 – 6300

Model	Full throttle operating range (r/min)
DF100C	5000 – 6000
DF115B/115BS/115BG	5000 – 6000
DF140B/140BG	5700 – 6300
DF150A/150AP	5000 – 6000
DF175A/175AP	5500 – 6100
DF200A/200AS/200AP	5500 – 6100
DF200	5000 – 6000
DF225	5000 – 6000
DF250	5500 – 6100
DF250S	5300 – 6300
DF250W	5500 – 6100
DF250AP	5500 – 6100
DF250AUN	5300 – 6300
DF300AP	5700 – 6300
DF300B/300BMD	5300 – 6300
DF325A	5300 – 6300
DF350A/350AMD	5700 – 6300

PROPELLER SIZE CHART

RR; Right-hand rotation propeller. CR; Left-hand rotation propeller

Model	Blade	Diameter (in)	Pitch (in)	Rotation	Part number	Description	Material
DF2.5	3	7_3/8	5_3/8	RR	58110-97JA0-019		Aluminum
DF4A	3	7_1/2	6	RR	58110-91JL0-019		Aluminum
DF5A	3	7_1/2	6_1/2	RR	58110-91JM0-019		Aluminum
DF6A	3	7_1/2	7	RR	58110-91JN0-019		Aluminum
DF8A	3	9_1/4	7	RR	58100-89L00-019		Aluminum
DF9.9A	3	9_1/4	8	RR	58100-90L41-019	Thick	Aluminum
	3	9_1/4	9	RR	58100-89L20-019		Aluminum
	3	9_1/4	9	RR	58100-90L50-019	Thick	Aluminum
	3	9_1/4	10	RR	58100-89L60-019		Aluminum
	3	9_1/4	10	RR	58100-90L21-019	Thick	Aluminum
	3	9_1/4	11	RR	58100-89L70-019		Aluminum
DF9.9B	4	10	5	RR	58100-94JA2-019	High thrust	Aluminum
DF9.9B	3	9_1/4	7	RR	58100-89L00-019		Aluminum
DF15A	3	9_1/4	8	RR	58100-90L41-019	Thick	Aluminum
DF20A	3	9_1/4	9	RR	58100-89L20-019		Aluminum
	3	9_1/4	9	RR	58100-90L50-019	Thick	Aluminum
	3	9_1/4	10	RR	58100-89L60-019		Aluminum
	3	9_1/4	10	RR	58100-90L60-019	Thick	Aluminum
	3	9_1/4	11	RR	58100-89L70-019		Aluminum
	3	9_1/4	12	RR	58100-89L50-019		Aluminum
	4	10	7	RR	58100-94JB0-019	High thrust	Aluminum
DF25A	3	10_1/4	9	RR	58100-96372-019	Thick	Aluminum
DF30A	3	10_1/4	10	RR	58100-91L40-019		Aluminum
	3	10_1/4	10	RR	58100-96472-019	Thick	Aluminum
	3	10_1/4	11	RR	58100-91L50-019		Aluminum
	3	10_1/4	12	RR	58100-91L20-019		Aluminum
	3	10_1/4	12	RR	58100-96482-019	Thick	Aluminum
	3	10_1/4	13	RR	58100-91L30-019		Aluminum
	3	10_1/4	13	RR	58100-96492-019	Thick	Aluminum
	3	10_1/4	14	RR	58100-95D01-019		Aluminum
	3	10_1/4	15	RR	58100-96462-019		Aluminum

Model	Blade	Diameter (in)	Pitch (in)	Rotation	Part number	Description	Material
DF40A	3	11_1/2	9	RR	58100-88LC0-019		Aluminum
DF40AS	3	11_1/2	10	RR	58100-88LD0-019		Aluminum
DF50A	3	11_1/2	11	RR	58100-88LE0-019		Aluminum
DF60A	3	11_5/8	12	RR	58100-88LA0-019		Aluminum
	3	11_1/2	13	RR	58100-88LB0-019		Aluminum
	3	11_3/8	14	RR	58100-88L52-019		Aluminum
	3	11_1/4	15	RR	58100-88L62-019		Aluminum
	3	11_1/8	16	RR	58100-88L72-019		Aluminum
	3	11	17	RR	58100-88L83-019		Aluminum
	3	11_1/8	16	RR	58200-88L30-000		Stainless
DF40ASV	3	14	9	RR	58100-87LG1-019		Aluminum
DF50AV	3	14	11	RR	58100-87LH0-019		Aluminum
DF60AV	3	13_3/4	12	RR	58100-87LJ0-019		Aluminum
	3	14	13	RR	58100-87LA0-019		Aluminum
	3	13_7/8	15	RR	58100-87LB0-019		Aluminum
	3	13_3/4	17	RR	58100-87LC0-019		Aluminum
DF70A	3	14	13	RR	58100-87LA0-019		Aluminum
DF75	3	13_7/8	15	RR	58100-87LB0-019		Aluminum
DF80A	3	13_3/4	17	RR	58100-87LC0-019		Aluminum
DF90A	3	13_3/4	19	RR	58100-87LD0-019		Aluminum
DF100B	3	13_3/4	21	RR	58100-87LE0-019		Aluminum
	3	13_3/4	23	RR	58100-87LF0-019		Aluminum
	3	13_1/2	15	RR	58100-90JE0-019		Aluminum
	3	14	17	RR	58100-90JA0-019		Aluminum
	3	14	19	RR	58100-90JB0-019		Aluminum
	3	14	21	RR	58100-90JC0-019		Aluminum
	3	14	23	RR	58100-90JD0-019		Aluminum
	3	13_7/8	15	RR	58200-92J40-000		Stainless
	3	13_7/8	17	RR	58200-92J50-000		Stainless
	3	13_7/8	19	RR	58200-92J60-000		Stainless
	3	13_7/8	21	RR	58200-92J70-000		Stainless
	3	13_7/8	23	RR	58200-92J80-000		Stainless
	3	13_7/8	25	RR	58200-92J90-000		Stainless

Model	Blade	Diameter (in)	Pitch (in)	Rotation	Part number	Description	Material
DF100C	3	13_1/2	15	RR	58100-90JE0-019		Aluminum
DF115B	3	14	17	RR	58100-90JA0-019		Aluminum
DF115BS	3	14	19	RR	58100-90JB0-019		Aluminum
DF115BG	3	14	21	RR	58100-90JC0-019		Aluminum
DF140B	3	14	23	RR	58100-90JD0-019		Aluminum
DF140BG	3	13_7/8	15	RR	58200-92J40-000		Stainless
	3	13_7/8	17	RR	58200-92J50-000		Stainless
	3	13_7/8	19	RR	58200-92J60-000		Stainless
	3	13_7/8	21	RR	58200-92J70-000		Stainless
	3	13_7/8	23	RR	58200-92J80-000		Stainless
	3	13_7/8	25	RR	58200-92J90-000		Stainless
	3	13_7/8	17	CR	58200-92JA0-000		Stainless
	3	13_7/8	19	CR	58200-92JB0-000		Stainless
	3	13_7/8	21	CR	58200-92JC0-000		Stainless
	3	13_7/8	23	CR	58200-92JD0-000		Stainless

“WATERGRIP” Propeller Series

Model	Blade	Diameter (in)	Pitch (in)	Rotation	Part number	Description	Material
DF150	3	16	15	RR	58700-93L81-000		Stainless
DF150AP	3	16	17	RR	58700-93L01-000		Stainless
DF175A	3	16	18_1/2	RR	58700-93L11-000		Stainless
DF175AP	3	16	20	RR	58700-93L21-000		Stainless
DF200A	3	16	21_1/2	RR	58700-93L31-000		Stainless
DF200AS	3	16	23	RR	58700-93L41-000		Stainless
DF200AP	3	16	24_1/2	RR	58700-93L51-000		Stainless
DF200	3	16	26	RR	58700-93L61-000		Stainless
DF225	3	16	27_1/2	RR	58700-93L71-000		Stainless
DF250	3	16	17	CR	58800-93L00-000		Stainless
DF250S	3	16	18_1/2	CR	58800-93L10-000		Stainless
DF250W	3	16	20	CR	58800-93L20-000		Stainless
DF250AP	3	16	21_1/2	CR	58800-93L30-000		Stainless
DF250AUN	3	16	23	CR	58800-93L40-000		Stainless
DF300AP	3	16	24_1/2	CR	58800-93L50-000		Stainless
	3	16	26	CR	58800-93L60-000		Stainless
	3	15_1/2	17	RR	58700-96J00-000		Stainless
	3	15_1/4	19	RR	58700-96J10-000		Stainless
	3	15	21	RR	58700-96J20-000		Stainless
	3	14_3/4	23	RR	58700-96J30-000		Stainless
	3	14_1/2	25	RR	58700-96J40-000		Stainless
	3	14_1/2	27	RR	58700-96J50-000		Stainless
	3	15_1/2	17	CR	58800-96J00-000		Stainless
	3	15_1/4	19	CR	58800-96J10-000		Stainless
	3	15	21	CR	58800-96J20-000		Stainless
	3	14_3/4	23	CR	58800-96J30-000		Stainless
	3	14_1/2	25	CR	58800-96J40-000		Stainless
	3	14_1/2	27	CR	58800-96J50-000		Stainless
	4	15_1/4	18	RR	58700-93J00-000		Stainless
	4	15_1/4	20	RR	58700-93J10-000		Stainless
	4	15_1/4	22	RR	58700-93J20-000		Stainless
	4	15_1/4	24	RR	58700-93J30-000		Stainless
	4	15_1/4	26	RR	58700-93J40-000		Stainless
	4	15_1/4	20	CR	58800-93J10-000		Stainless
	4	15_1/4	22	CR	58800-93J20-000		Stainless
	4	15_1/4	24	CR	58800-93J30-000		Stainless
	4	15_1/4	26	CR	58800-93J40-000		Stainless

Model	Blade	Diameter (in)	Pitch (in)	Rotation	Part number	Description	Material
DF150AP	3	15	19	RR	58700-96L00		Stainless
DF175AP	3	14_7/8	21	RR	58700-96L10		Stainless
DF200AP	3	14_1/2	23	RR	58700-96L20		Stainless
DF250AUN	3	14_1/4	25	RR	58700-96L30		Stainless
	3	14	27	RR	58700-96L40		Stainless

NOTE:
When installing "WATERGRIP" type propellers, use the following hardware.

Part name	Part number
Stopper, propeller bush	57632-93L1✳
Spacer, propeller nut	57633-93L0✳
Washer	09160-18028
Pin	09204-03003

Model	Blade	Diameter (in)	Pitch (in)	Rotation	Part number	Description	Material
DF300B	3	15_1/2	12	–	58500-98LA0	Front	Stainless
DF300BMD	3	15_1/2	15	–	58500-98LB0	Front	Stainless
DF325A	3	15_1/2	16.5	–	58500-98LC0	Front	Stainless
DF350A	3	15_1/2	18	–	58500-98L90	Front	Stainless
DF350AMD	3	15_1/2	19.5	–	58500-98L60	Front	Stainless
	3	15_1/2	21	–	58500-98L00	Front	Stainless
	3	15_1/2	22.5	–	58500-98L10	Front	Stainless
	3	15_1/2	24	–	58500-98L20	Front	Stainless
	3	15_1/2	25.5	–	58500-98L30	Front	Stainless
	3	15_1/2	27	–	58500-98L40	Front	Stainless
	3	15_1/2	28.5	–	58500-98L50	Front	Stainless
	3	15_1/2	30	–	58500-98L70	Front	Stainless
	3	15_1/2	31.5	–	58500-98L80	Front	Stainless
	3	15_1/2	12	–	58600-98LA11	Rear	Stainless
	3	15_1/2	15	–	58600-98LB11	Rear	Stainless
	3	15_1/2	16.5	–	58600-98LC11	Rear	Stainless
	3	15_1/2	18	–	58600-98L911	Rear	Stainless
	3	15_1/2	19.5	–	58600-98L611	Rear	Stainless
	3	15_1/2	21	–	58600-98L011	Rear	Stainless
	3	15_1/2	22.5	–	58600-98L111	Rear	Stainless
	3	15_1/2	24	–	58600-98L211	Rear	Stainless
	3	15_1/2	25.5	–	58600-98L311	Rear	Stainless
	3	15_1/2	27	–	58600-98L411	Rear	Stainless
	3	15_1/2	28.5	–	58600-98L511	Rear	Stainless
	3	15_1/2	30	–	58600-98L711	Rear	Stainless
	3	15_1/2	31.5	–	58600-98L811	Rear	Stainless

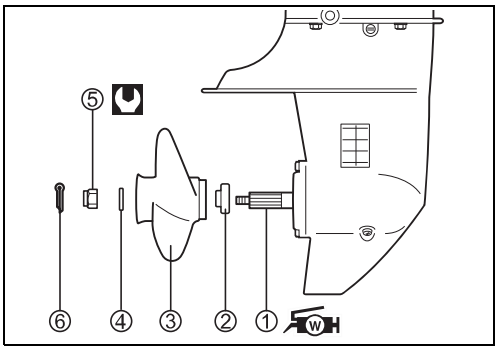
NOTICE

Using the improper combination of front and rear propellers can cause lower unit damage.

Confirm the size of the front and rear propellers when installing them.
The front and rear propellers must be the same number of blades, diameter and pitch.

PROPELLER INSTALLATION

DF8A through DF20A



(1) Coat the propeller shaft ① with the SUZUKI water-resistant grease.

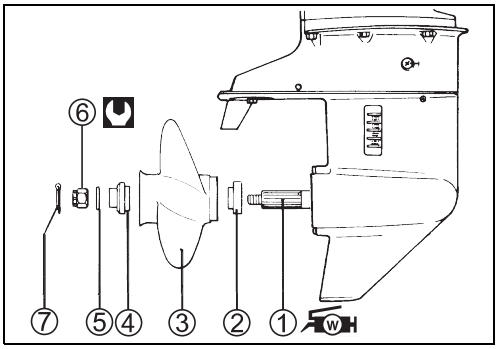
: 99000-25520: SUZUKI Water Resistant Grease EP2

(2) Place the stopper ② on the propeller shaft.
(3) Slide the propeller ③ onto the propeller shaft.
(4) Place the washer ④ on the propeller shaft.
(5) Tighten the propeller nut ⑤ to the specified torque.

Propeller nut: 18 N·m (1.8 kgf-m, 13 lbf-ft)

(6) Push the cotter pin ⑥ through the nut and shaft, then bend to secure.

DF25A/30A



(1) Coat the propeller shaft ① with the SUZUKI water-resistant grease.

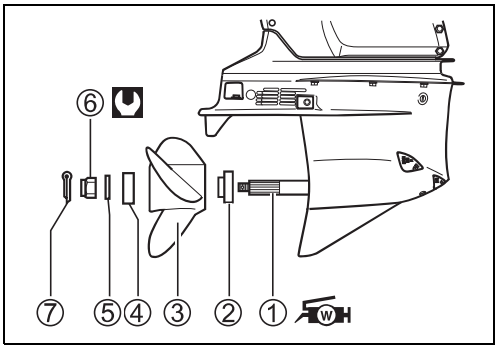
: 99000-25520: SUZUKI Water Resistant Grease EP2

(2) Place the stopper ② on the propeller shaft.
(3) Slide the propeller ③ onto the propeller shaft.
(4) Place the spacer ④ and washer ⑤ on the propeller shaft.
(5) Tighten the propeller nut ⑥ to the specified torque.

Propeller nut: 25 N·m (2.5 kgf-m, 18 lbf-ft)

(6) Push the cotter pin ⑦ through the nut and shaft, then bend to secure.

DF40A through DF300AP



(1) Coat the propeller shaft ① with the SUZUKI water-resistant grease.

: 99000-25520: SUZUKI Water Resistant Grease EP2

(2) Place the stopper ② on the propeller shaft.
(3) Slide the propeller ③ onto the propeller shaft.
(4) Place the spacer ④ and washer ⑤ on the propeller shaft.
(5) Tighten the propeller nut ⑥ to the specified torque.

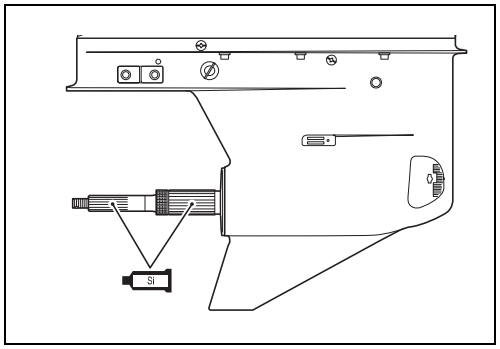
Propeller nut: 55 N·m (5.5 kgf-m, 40 lbf-ft)

(6) Push the cotter pin ⑦ through the nut and shaft, then bend to secure.

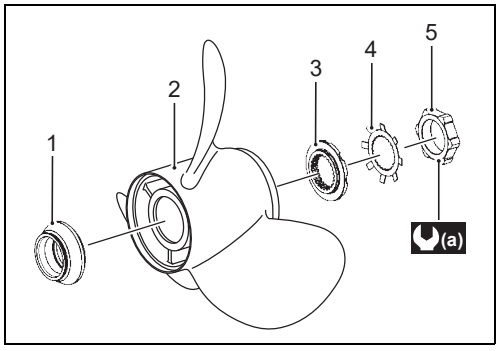
DF300B/325A/350A/300BMD/350AMD
Front propeller:

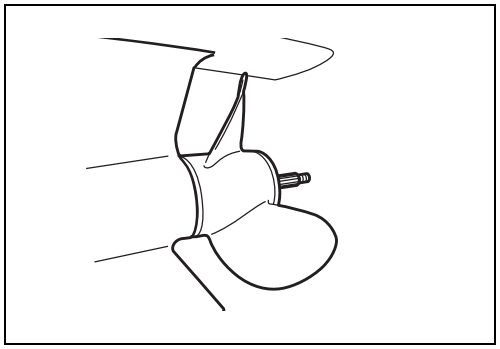
(1) Coat both the propeller shaft splines liberally with Suzuki water resistant grease.

W/R G's: 99000-25520: SUZUKI Water Resistant Grease EP2



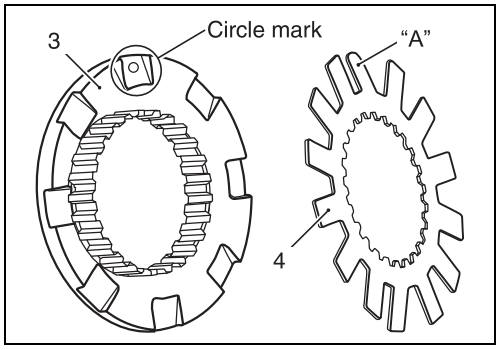
(2) Install front propeller stopper (1) onto propeller shaft, then slide on the front propeller (2).



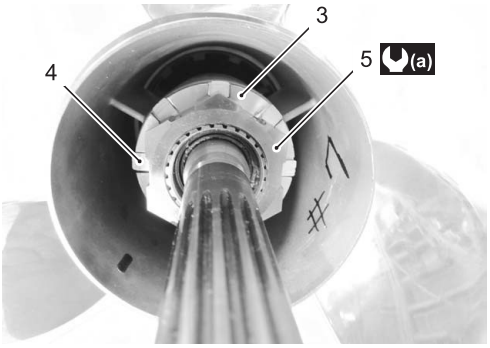


(3) Fit the propeller nut stopper (4) to front propeller nut spacer (3), then install them to propeller shaft.

NOTE:
The circular tab "A" of propeller nut stopper must be placed in the groove with a circle mark as shown in illustration.



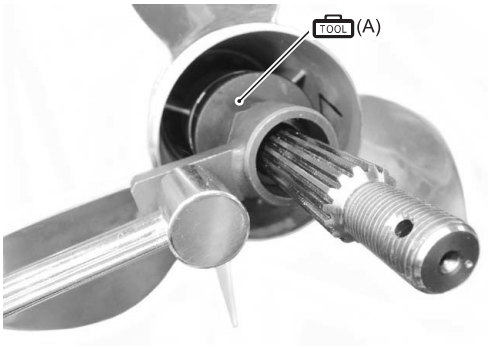
(4) Install front propeller nut (5), using special tool to reach specified torque.



NOTE:
Front propeller nut is LH (Left Hand) thread.

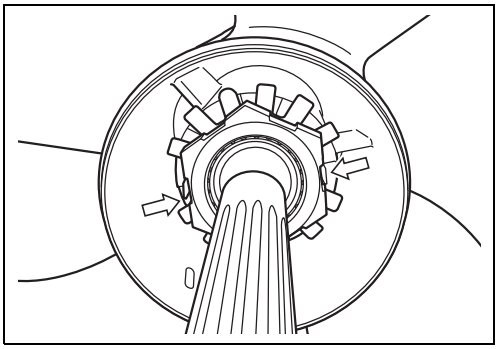
Front propeller nut (a): 130 N·m (13 kgf-m, 96 lbf-ft)

(A): 09923-29810: Propeller nut installation/removal tool



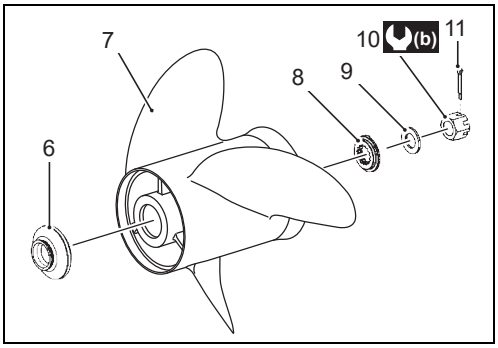
(5) Bend the propeller nut stopper tabs toward nut to secure nut.

NOTE:
Two tabs must be bent to secure.

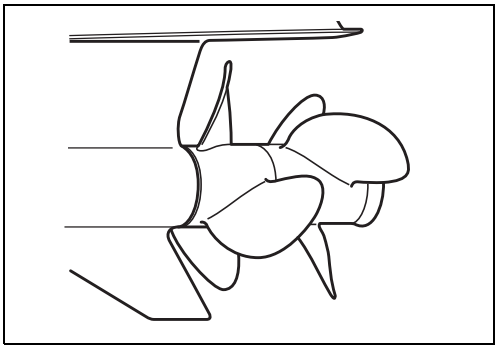


Rear propeller:

(6) Install rear propeller stopper (6) onto propeller shaft, then slide on the rear propeller (7).
(7) Fit spacer (8), washer (9) and nut (10), then tighten nut to specified torque.
(8) Push cotter pin (11) through nut and shaft, then bend to secure.

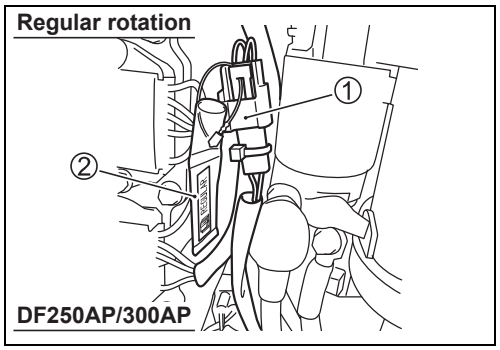


Rear propeller nut (b): 55 N·m (5.6 kgf-m, 41 lbf-ft)



PROPELLER TYPE SELECTION (for DF150AP/175AP/200AP, DF250AP/300AP)

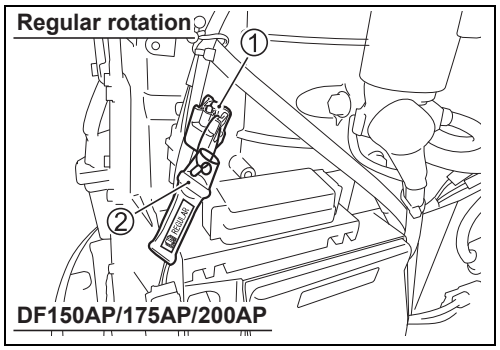
Before installing the propeller, confirm the lower unit rotation type.
It is necessary to match the installed propeller type to the lower unit type.
Install a right hand rotation propeller with regular rotation lower unit, or left hand rotation propeller with counter rotation lower unit.



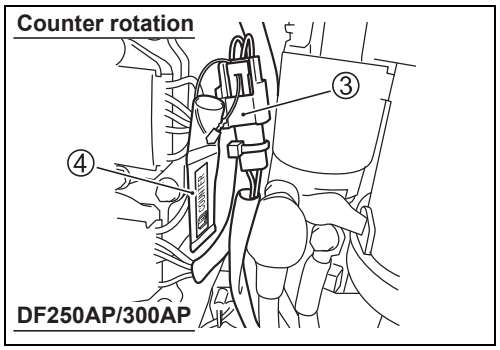
To identify the lower unit rotation type:

(1) Confirm the rotation select connector.

- **For Regular rotation lower unit;**
  Locate the blue rotation connector ① with “REGULAR” on the label ②.



- **For Counter rotation lower unit**;
  Locate the white rotation connector ③ with “COUNTER” on the label ④.



(2) The propeller type suitable for the lower unit type should be selected and installed.

NOTE:

- *Right-hand rotation propellers are identified with the letter “R” after the propeller size indication on the propeller.*
- *Left-hand rotation propellers are identified with the letter “L” after the propeller size indication on the propeller.*