## **ALUMINIUM PROPELLERS**



### STAINLESS STEEL PERFORMANCE AT ALUMINUM **PRICES**

Stainless steel blade geometry used in all aluminum patterns results in less blade flex. Higher efficiency equals better fuel economy, better top end, faster hole shot, and excellent cornering & handling.

#### TUNED VENTS FOR FAST HOLE SHOT

Vent holes in the prop's barrel allow exhaust gases to escape, reducing water density around the propeller's blades during acceleration. This causes the propeller to rotate faster at slower speeds resulting in more HP. More HP at lower speeds means faster acceleration and a faster hole shot. Turning Point is the only manufacturer offering this race proven feature in our Hustler & Legacy Aluminum Propellers. Available on most models, please refer to selection chart.

#### PERFORMANCE TUNED RAKE ANGLES

Higher rake angles tighten the vortex produced by the prop, adding to boat lift and overall performance

#### IMPROVE HANDLING AND BOAT LIFT

Through advanced pitch line and rake line cupping.

#### HIGH FLOW-THROUGH BARREL EXHAUST SYSTEM

Maximizing exhaust flow increases horsepower and top end speed.

#### **TUNED PROGRESSIVE PITCH ANGLES**

Accelerating and channeling water to minimize slip increases performance and fuel economy.

#### LONG LASTING FINISH - POWDER COATED

The 5 step process creates a uniform, durable, high-quality, and attractive finish that protects the aluminum from corrosion.

#### COMPATIBLE WITH COMPETITORS' HUB SYSTEMS

Works with Mercury® Flow-Torg®, Michigan Wheel® XHS®, Solas® Rubex™ hub kit systems (All trademarks are the property of their respective owners). NOTE: Not applicable with Turning Point's 10, 20 and 200 Hub Kit series.

Hub Kit Available for Aluminum

Turning Point offers its unique hub and housing system from 8HP to 300+HP, a range of engines un-matched in the industry. Hub kit covered by USA & worldwide patents

Utilizing high tech shock absorbing polymers and a solid brass spindle, the Turning Point MasterGuard & MasterTorque hubs will not corrode or break like competing hubs, and are covered by an industry leading Lifetime Warranty. Each hub's one piece design ensures simple housing replacement, making a prop change quick and easy.

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# **OUTBOARD PROPELLERS**

### **SQUEEZE CAST FOR ADDED STRENGTH**

Turning Point Exclusive Process applied to all aluminum props - Squeeze Cast process generates the highest mechanical properties attainable in a cast product, resulting in tighter grain structures. Competitors use old Die Cast processes that results in high blade flex and poor performance.



TURNING POINT EXCLUSIVE PROCESS  $\cdot$  TIGHT GRAIN  $\cdot$  STRONG AND STIFF  $\cdot$  REDUCES FLEX FOR MAXIMUM THRUST



COMPETITORS' PROCESS · POCKETS, VOIDS, AIR BUBBLES · WEAK AND FLEXIBLE · INNEFFI-CIENT TRANSFER OF POWER · POOR REPAIRABILITY





# FOUR BLADE ALUMINUM HUSTLER PROPELLER

New Four Blade Design uniquely engineered with two blade geometries: two blades utilize the Hustler high performance variable rake and aggressive pitch design for incredible hole shot and cornering, and two blades utilize a "cleaver" style shape for high speed and maximum stern lift.

This combination results in the highest performance aluminum propeller on the market, unmatched in cornering, acceleration, boat handling, and top speed. This is the ultimate water sports propeller, but also offers any boater four blade performance with none of the usual top speed reductions normal to other designs.

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## **OUTBOARD PROPELLERS**

## HUB

#### **ELIMINATE HUB SYSTEM VIBRATION & CHATTER**

Innovative one-piece design reduces the number of parts and eliminates failures commonly seen in multi-part hub systems.

#### **ELIMINATE HUB CRACKING & FAILURE**

The glass reinforced high-tech polymer construction increases flexibilty, eliminating potential material stress fractures.

#### **CORROSION RESISTANT MATERIALS**

Premium corrosion resistant brass splines.

#### **REDUCE GEAR SHOCK & ENGINE/DRIVE DAMAGE**

Shock absorbing hi-tech polymer cushion.

#### REDUCES INVENTORY COST

Turning Point is the only manufacturer to offer the hub and housing system down to 8HP outboard applications.

#### **REDUCE PROP REPLACEMENT COST BY 20-30%**

Hub kits are designed to be reusable even after most propeller impacts, eliminating the need to replace the hub system when replacing a damaged propeller.

#### **EASY TO INSTALL - CONSUMER FRIENDLY**

Clear and easy step by step directions coupled with minimal parts makes installation easy.

### **INCREASES PERFORMANCE AND HP**

High-flow through barrel exhaust system maximizes exhaust flow increasing horsepower and top end speed.



# INTERCHANGEABLE AVEC LES HÉLICES CONCURRENTES INTERCHANGES WITH OTHER MANUFACTURERS' PROPELLERS

Upgrades and replaces Mercury® Flow-Torq®, Michigan Wheel® XHS®, Solas® Rubex™ hub kit systems (All trademarks are the property of their respective owners). NOTE: Not applicable with Turning Point's 10, 20 and 200 Hub Kit series.



#### **REDUCES 25-75HP HUB INVENTORY BY ALMOST 60%**

Competitor's hub kit systems take 7 kits to fit engine applications in the 25-75HP range, where Turning Point only needs 3 kits (10 Series Hub Kits).

US Patent #6,471,481, #6,685,432 & worldwide patents.

US and worldwide patents pending.











20 SERIES HUB SYSTEM

20 - 35 HP





200 SERIES HUB SYSTEM

8 - 18 HP

## **OUTBOARD PROPELLERS**

## STAINLESS STEEL PROPELLERS

#### IMPROVED HANDLING AND BOAT LIFT

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Utilizing high tech shock absorbing polymers and a solid brass spindle, the Turning Point MasterGuard & MasterTorque hubs will not corrode or break like competing hubs, and are covered by an industry leading Lifetime Warranty. Each hub's one piece design ensures simple housing replacement, making a prop change quick and easy.





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Engine		Year	Hub ref.	OEM Ref.	Ø x Pitch	Propeller Ref.				
	8 TO 18 HP - HUSTLER - ALUMINIUM									
	8 Splines									
9.9 & 15 HP 2 Strokes		84 & +	HHB 205	63V-45945-00-EL	9 x 9	HHB R4 0909				
F9.9 & F15 4 Strokes			HHB 205	683-45943-00-EL	9 x 10	HHB R4 0910				
20 TO 35 HP - HUSTLER - ALUMINIUM										
10 Splines										
20 HP 2 Strokes		96/97	HHB 25	664-45947-01-EL	10-3/8 x 11 10-3/8 x 13	HHB R2 1011 HHB R2 1013				
25 HP 2 Strokes		80 & +	HHB 25							
25 HP 4 Strokes		98 & +	HHB 25	664-45949-02-EL						
30 HP 2 Strokes		79 & +	HHB 25							
	40 TO 75 HP -	HUSTLE	R - ALUMII	NIUM						
	13 Splines									
40 / 50 HP 2 Strokes (except T50)	·	84 & +	HHB 12	663-45956-01-EL 664-45947-01-EL 663-45947-02-EL 6H5-45952-00-EL 6H5-45945-00-EL 663-45958-01-EL 6H5-45943-00-EL	10-3/4 x 12 10-1/2 x 13 10-3/8 x 14	HHB H1 1208 HHB H1 1210 HHB H1 1011 HHB H1 1012 HHB H1 1013 HHB H1 1014 HHB H1 1015				
48 HP 2 Strokes		95 & +	HHB 12							
55 HP 2 Strokes		76/95	HHB 12							
FT 25 High Thrust		01 & +	HHB 12							
F30 4 Strokes		01 & +	HHB 12							
F40 4 Strokes		99 & +	HHB 12							
F50 4 Strokes		95 & +	HHB 12							
F60 4 Strokes		02 & +	HHB 12							
	40 TO 150 HP	- HUSTLE	ER - ALUMI	NIUM						
	15 Splines									
FT50 High Thrust		96 & +	HHB 500		14 x 11 14 x 13 13-3/4 x 15 13-1/4 x 17 13-1/4 x 19 13-1/4 x 21	3 HHB LE1 1413 15 HHB LE1 1315 17 HHB LE1 1317 19 HHB LE1 1319				
FT60 High Thrust		03 & +	HHB 500							
60 HP 2 Strokes		92 & +	HHB 500							
70 HP 2 Strokes		All	HHB 500							
75 HP 2 Strokes		94 & +	HHB 500							
F75 4 Strokes		03 & +	HHB 500	6E5-4594-00-EL 6E5-45949-00-EL 6E5-45947-00-EL 6E5-45945-01-EL 6E5-45941-00-EL 6E5-45943-00-EL						
F80 4 Strokes		02 & +	HHB 500							
85 HP 2 Strokes		90/96	HHB 500							
90 HP 2 Strokes		98/01	HHB 500							
F90 4 Strokes		03 & +	HHB 500							
F100 4 Strokes		All	HHB 500							
115 HP 2 Strokes		All	HHB 505							
F115 4 Strokes		+ & 00	HHB 505							
130 HP 2 Strokes		84 & +	HHB 505							
*	If propeller strikes trim tab,									
	135 TO 300 HP	- HUSTL	ER - ALUM	TNIUM						
4504000	15 Splines	0								
150 HP 2 Strokes		86 & +	HHB 505		14-1/2 x 17 14-1/4 x 19 14-1/4 x 21	3 Blades HHB LE 1515 HHB LE 1417				
150 HP 4 Strokes		04 & +	HHB 505							
175 / 200 HP 2 Strokes		84 & +	HHB 505	6G5-45941-00-98 6G5-45947-01-98						
200 HP 2 Strokes		84 & +	HHB 505	6G5-45947-01-98 6G5-45945-01-98 6G5-45943-01-98		HHB LE 1419				
225 HP 2 Strokes		86 & +	HHB 505			HHB LE 1421 HHB LE 1423				
250 HP 2 Strokes		90 & +	HHB 505	JUJ-TJ747-U1-78						
F225		02 & +	HHB 505	,	11 0 17	4 Blades RH & LH				
F250		05 & +	HHB 505	/	14 x 17 14 x 19	HHB LE 1417 4 HHB LE 1419 4				
300 HP 2 Strokes		03 & +	HHB 505		/ 14 x 21					
Sterndrive 3.0 to 7.4 L	-DE CDÉCLALICEE EN 1		HHB 505							



Engine	Year	Hub ref.	OEM Ref.	Ø x Pitch	Propeller Ref.					
40 TO 75 HP - EXPRESS - INOX										
13 Splines										
40 / 50 HP 2 Strokes (except T50)	84 & +	HHB 12								
48 HP 2 Strokes	95 & +	HHB 12	/	12 x 9	HHB E1 1209					
55 HP 2 Strokes	76/95	HHB 12	/	12 x 11	HHB E1 1211					
FT 25 High Thrust	01 & +	HHB 12	/ 663-45972-60-98	12 x 13 10-1/2 x 11	HHB E1 1213 HHB E1 1011					
F30 4 Strokes	01 & +	HHB 12	633-45970-60-98 633-45974-60-98 633-45930-00-98 633-45976-00-98	10-1/2 x 11 10-1/2 x 12 10-1/2 x 13 10-1/2 x 14 10-1/2 x 15	HHB E1 1011 HHB E1 1012 HHB E1 1013 HHB E1 1014 HHB E1 1015					
F40 4 Strokes	99 & +	HHB 12								
F50 4 Strokes	95 & +	HHB 12								
F60 4 Strokes	02 & +	HHB 12								
	40 TO 150 HP - E)	(PRESS - I	NOX							
15 Splines										
FT50 High Thrust	96 & +	HHB 500								
FT60 High Thrust	03 & +	HHB 500	/ / 688-45978-60-98 688-46930-02-98 688-45970-03-98 688-45972-02-98	14 x 11 14 x 13 13-1/4 x 15 13-1/4 x 17 13-1/4 x 19 13-1/4 x 21	HHB PA1 1411 HHB PA1 1413 HHB PA1 1315					
60 HP 2 Strokes	92 & +	HHB 500								
70 HP 2 Strokes	All	HHB 500								
75 HP 2 Strokes	94 & +	HHB 500								
F75 4 Strokes	03 & +	HHB 500								
F80 4 Strokes	02 & +	HHB 500			HHB PA1 1317					
85 HP 2 Strokes	90/96	HHB 500			HHB PA1 1319					
90 HP 2 Strokes	98/01	HHB 500			HHB PA1 1321					
F90 4 Strokes	03 & +	HHB 500								
F100 4 Strokes	All	HHB 500								
115 HP 2 Strokes	All	HHB 505								
F115 4 Strokes	00 & +	HHB 505	* If propeller strike	as trim tah ranlasa	with Yamaha part					
130 HP 2 Strokes	84 & +	HHB 505	ii propetter strike	# 6E5-45371-10	With famana part					
	135 TO 300 HP - E		INOX							
15 Splines										
150 HP 2 Strokes	86 & +	HHB 505		3 Blades RH/LH 14-1/4 × 17 14-1/4 × 19 14-1/4 × 21 14-1/4 × 23						
150 HP 4 Strokes	04 & +	HHB 505	6G5-45978-03-98 6G5-45974-03-98 6G5-45972-02-98 6G5-45976-01-98							
175 / 200 HP 2 Strokes	84 & +	HHB 505			HHB PA 1417					
225 HP 2 Strokes	86 & +	HHB 505			HHB PA 1419 HHB PA 1421					
250 HP 2 Strokes	90 & +	HHB 505			HHB PA 1423					
F225	02 & +	HHB 505		4 Blades						
F250	05 & +	HHB 505	/	14 x 15 14 x 17 14 x 19 14 x 21	HHB PA 1415 4					
300 HP 2 Strokes	03 & +	HHB 505	/		HHB PA 1417 4 HHB PA 1419 4					
Sterndrive 3.0 to 7.4 L	03 &	HHB 505	/		HHB PA 1421 4					
* Please add '' L" at	the end of our code to o		Hand rotation propell	er (LH)						
	DE 135 À 300 CV - E									
15 Splines										
150 HP 2 Strokes	86 & +	HHB 505								
150 HP 4 Strokes	04 & +	HHB 505	RH 6R4-45976-A0-00 6R4-45978-A0-00 6R4-45970-A0-00 6R4-45972-A0-00 RH / /	3 Blades RH/LH 15 x 15 15 x 17 15 x 19 15 x 21 4 Blades RH/LH 14-1/2 x 17 14-1/2 x 19 14-1/2 x 21 14-1/2 x 23						
175 / 200 HP 2 Strokes	84 & +	HHB 505			HHB VO 1515					
225 HP 2 Strokes	86 & +	HHB 505			HHB VO 1517					
250 HP 2 Strokes	90 & +	HHB 505			HHB VO 1519					
F225	02 & +	HHB 505			HHB VO 1521					
F250	05 & +	HHB 505								
300 HP 2 Strokes	03 & +	HHB 505			HHB VO 1417 4 HHB VO 1419 4					
JOURNAL PROPERTY OF THE PROPER	03 Q T	נונ טוווו			HHB VO 1421 4					
Sterndrive 3.0 to 7.4 L		HHB 505			HHB VO 1423 4					