

CLUTCHING - SKI DOO

DALTON - "Q" CLUTCH HELIX

Billet CNC machined helixes for the QRS secondary clutch found on the 2008 and newer XP/XR chassis from Ski-Doo. All current Dalton versions also contain the extra hole required for the latest torsion tang locations from 4 stroke model factory spring updates. A Dalton helix does have the factory curved floor spring seat groove for the factory plastic spring slide cushion (like the factory 2 stroke version) so everything works like factory when you move the plastic to the new helix.

- Ski-Doo XP / XR Models ('08 and newer)
- Designed for the new QRS secondary clutch
- Angle geometry is the same as factory for easy comparison



"Q" Helix - Standard Angle						
Angle						
Q 38	Q 44/33	Q 46/32	Q 47/44	Q 49/47	Q 52/32	Q 54/40
Q 39	Q 44/34	Q 46/34	Q 47/46	Q 50	Q 52/36	Q 54/42
Q 40	Q 44/36	Q 46/36	Q 48/36	Q 50/32	Q 52/38	Q 54/44
Q 40/36	Q 44/38	Q 46/38	Q 48/38	Q 50/34	Q 52/40	Q 54/46
Q 41	Q 44/40	Q 46/40	Q 48/40	Q 50/35	Q 52/42	Q 54/50
Q 42	Q 44/41	Q 46/42	Q 48/42	Q 50/36	Q 52/44	Q 57
Q 42/34	Q 44/42	Q 47	Q 48/44	Q 50/38	Q 52/46	Q 57/44
Q 42/38	Q 45	Q 47/38	Q 48/46	Q 50/40	Q 52/48	Q 58/42
Q 42/39	Q 45/35	Q 47/39	Q 49	Q 50/42	Q 52/50	Q 58/44
Q 42/40	Q 45/42	Q 47/40	Q 49/38	Q 50/44	Q 53	Q 60/48
Q 43	Q 45/43	Q 47/42	Q 49/42	Q 50/46	Q 53/40	Q 62/48
Q 44	Q 46	Q 47/43	Q 49/46	Q 50/47	Q 54	Q 62/50
"Q" Helix - Reverse Angle						
Angle						
Q 36/40	Q 38/48	Q 40/42	Q 40/48	Q 42/44	Q 43/46	Q 44/46
Q 36/44	Q 39/43	Q 40/44	Q 41/45	Q 42/46	Q 43/47	Q 47/50
Q 38/40						

DALTON "RS" HELIX

RER (Electronic Reverse) Helix..

These helixes fit many of the electronic reverse models like the popular REV.

- For 03-06 button, **non-roller clutch only** These helixes **do not fit** models with the newer roller clutch like the REV "X" package models.

ALL Dalton RER electronic reverse helixes have a SPLINE center shaft section. There are some 2000-2002, 3 cylinder 800cc ski doos, and some Rev 500ss that use a "keyway" older style helix . Dalton does NOT build helixes for these keyway models.

"RS" Helix - Standard Angle						
Angle						
RS 38	RS 44	RS 46/44-38	RS 48/44	RS 50/42	RS 52/36	RS 54/40
RS 38/36	RS 44/33	RS 47	RS 48/46	RS 50/44	RS 52/38	RS 54/44
RS 40	RS 44/36	RS 47/30	RS 49	RS 50/45	RS 52/42	RS 54/46
RS 40/34	RS 44/38	RS 47/40	RS 49/42	RS 50/46	RS 52/44	RS 54/48
RS 40/36	RS 44/40	RS 47/42	RS 49/45	RS 50/47	RS 52/46	RS 54/50
RS 42	RS 45	RS 47/44	RS 50	RS 50/48	RS 52/48	RS 56/38
RS 42/34	RS 45/42	RS 48	RS 50/32	RS 51/45	RS 52/50	RS 56/44
RS 42/36	RS 46	RS 48/36	RS 50/34	RS 51/47	RS 53/40	RS 56/46
RS 42/38	RS 46/40	RS 48/40	RS 50/36	RS 52	RS 43/48	RS 58/42
RS 43	RS 46/42	RS 48/42	RS 50/40	RS 52/34	RS 53/47	
"RS" Helix - Reverse Angle						
Angle						
RS 47/50	RS 47/52					



CLUTCHING - SKI DOO

DALTON "HR" HELIX

Roller Clutch Electronic Reverse Helixes

- Fits Ski-Doo models that have the 2005-2007 roller secondary clutch and electronic reverse like the REV-X models and the 1000 cc twin cylinder models.



"HR" Helix - Standard Angle

"HR" Helix - Standard Angle						
Angle						
HR 36	HR 42	HR 42/34	HR 44/30	HR 46/34	HR 48/32	HR 50/36
HR 38	HR 42/22	HR 42/36	HR 44/33	HR 46/36	HR 48/34	HR 50/40
HR 40	HR 42/24	HR 42/38	HR 44/36	HR 46/42	HR 48/36	HR 50/44
HR 40/28	HR 42/26	HR 43/25	HR 44/38	HR 47/33	HR 49/33	HR 50/45
HR 40/32	HR 42/28	HR 44	HR 46	HR 48	HR 50	HR 51/45
HR 40/34	HR 42/30	HR 44/24	HR 46/26	HR 48/24	HR 50/32	HR 53/42
HR 40/36	HR 42/32	HR 44/27	HR 46/28	HR 48/30	HR 50/33	

DALTON "S" HELIX

Ski-Doo Helixes (non RER) secondary clutch

- Dalton's helixes for the Ski-Doo DSA models
- feature a stainless steel hub, closer tolerances, better corrosion resistance and a hard coated outer surface.



"S" Helix - Standard Angle

"S" Helix - Standard Angle							
Angle							
S 34	S 44/40	S 47/44	S 49/47	S 51/49	S 53/42	S 55/43	S 56/48
S 36	S 45	S 48	S 50	S 52	S 53/43	S 55/45	S 56/50
S 38	S 45/39	S 48/30	S 50/34	S 42/34	S 53/45	S 55/47	S 56/52
S 40	S 46	S 48/32	S 50/36	S 52/36	S 53/47	S 55/49	S 57/42
S 40/36	S 46/34	S 48/34	S 50/38	S 52/38	S 53/50	S 55/52	S 57/44
S 40/38	S 46/36	S 48/36	S 50/40	S 52/40	S 54	S 56	S 57/47
S 41	S 46/38	S 48/38	S 50/42	S 52/42	S 54/36	S 56/38	S 57/49
S 42	S 46/40	S 48/40	S 50/44	S 52/44	S 54/38	S 56/40	S 57/51
S 42/36	S 46/42	S 48/42	S 50/46	S 52/45	S 54/40	S 56/42	S 58/40
S 42/38	S 46/44	S 48/44	S 50/47	S 52/46	S 54/42	S 56/44	S 58/44
S 42/40	S 47	S 48/43	S 50/48	S 52/48	S 54/44	S 56/46	S 58/46
S 43	S 47/36	S 49	S 51	S 52/50	S 54/46	S 56/48	S 58/48
S 44	S 47/37	S 49/37	S 51/39	S 53	S 54/47	S 56/50	S 58/50
S 44/30	S 47/39	S 49/39	S 51/41	S 53/36	S 54/48	S 56/52	S 58/51
S 44/36	S 47/41	S 49/41	S 51/43	S 53/39	S 54/50	S 56/44	S 58/52
S 44/38	S 47/42	S 49/43	S 51/45	S 53/41	S 54/52	S 56/46	S 62/50

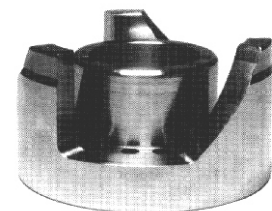
"RS" Helix - Reverse Angle

"RS" Helix - Reverse Angle							
Angle							
S 36/46	S 40/44	S 42/44	S 43/45	S 44/48	S 46/52	S 48/52	S 52/54
S 38/48	S 40/46	S 42/48	S 43/47	S 45/48	S 47/50	S 48/54	S 52/56
S 40/43	S 40/48	S 42/52	S 44/47	S 45/49	S 47/54	S 50/54	S 54/58

EPI HELIX SKI-DOO DSA NON RER

\$99.95-J

- Tri-angle helixes provide aggressive upshifting with superior backshifting characteristics.
- Quad-angle helixes provide the same aggressive upshift but have more built-in backshifting capability.
- High quality 7075-T6 Billet Aluminum for superior strength and lasting durability.
- Angles are measured the same as Ski-Doo.



PROGRESSIVE HELIX	
Part #	Angle
212-3135	58/54
212-3134	58/52
212-3133	56/52

TRI-ANGLE	
Part #	Angle
212-3114	56/52/46
212-3116	56/52/46

QUAD-ANGLE	
Part #	Angle
212-3103	58/54/52/50
212-3104	58/56/54/52

CLUTCHING - SKI DOO

DALTON PRIMARY SPRINGS

TRA PRIMARY SPRINGS

TCI #	MFG#	COLOR	@ 2.9"	@1.6"
238-5130	DPPS-PL	Purple	195 lb.	295 lb.
238-5131	DPPS-W	White	235 lb.	360 lb.
238-5132	DPPS-GY	Grey	205 lb.	328 lb.
	DPPS-RG	Red/Green	225 lb.	385 lb.
238-5129	DPPS-V/W	Violet/White	180 lb.	355 lb.
	DPPS-V/B	Violet/Black	157 lb.	340 lb.
238-5153	DPPS-W/BL	White/Blue	162 lb.	415 lb.
	DPPS-R/BL	Red/Blue	167 lb.	398 lb.
	DPPS-T/W	Tan/White	135 lb.	385 lb.
	DPPS-Y/S	Yellow Silver	200 lb.	355 lb.



SKI-DOO E-DRIVE 2 PRIMARY SPRINGS

TCI #	MFG#	COLOR	@60.6 mm	@28 mm
238-5155	DPPS-W/B	White/Black	117 lb.	210 lb.
	DPPS-W/Y	White/Yellow	127 lb.	225 lb.
	DPPS-TN/S	Tan/Silver	120 lb.	230 lb.

SKI-DOO P-DRIVE PRIMARY SPRINGS

- load tested as a n Assembly with guides*

TCI #	MFG#	COLOR	@79.44 mm	@45 mm
	DPDS-W/T/W	White/Tan/White	150 lb.	305lb
	DPDS-W/Y/W	White/Yellow/White	210 lb.	340 lb.
	DPDS-W/S/W	White/Silver/White	248 lb.	450 lb.
	DPDS-W/R/B	White/Red/Black	170 lb.	365 lb.
	DPDS-W/BL/B	White/Blue/Black	170 lb.	385 lb.



DALTON SECONDARY SPRINGS

TCI #	MFG#	COLOR	@61 mm	@35.2 mm
	DPSS-R	Red	210 lb.	305 ln.
	DPSS-R/Y	Red/Yellow	218 lb.	305 lb.
	DPSS-R/W	Red/White	245 lb.	340 lb.
	DPSS-Y/O	Yellow/Orange	225 lb.	330 lb.
	DPSS-Y/GY	Yellow/Gray	192 lb.	335 lb.
	DPSS-BN/W	Brown/White	130 lb.	210 lb.
	DPSS-PK	Pink	170 lb.	280 lb.

DALTON SECONDARY CLUTCH SPRINGS FOR SKI-DOO (TORSION STYLE) 4 STROKE MODELS

- DPSS-B/Y/G Black with Yellow/Green is a similar design to stock but with .200" wire.
- DPSS-B/Y/R Black with Yellow/Red is slightly heavier than the older "beige" OEM spring. This spring uses .207" wire

AAEN SECONDARY CLUTCH SPRING

210-12417 White (longer spring with higher side pretension) Medium Rating Torsion 306 lbs / rev

EPI SECONDARY CLUTCH

212-3904	Orange H.D.	@ 2.9" - 62 lb.	@ 1.6" - 112 lb.
212-3923	Black	@ 2.9" - 48 lb.	@ 1.6" - 80 lb.
212-3901	White H.D.	@ 2.9" - 46 lb.	@ 1.6" - 78 lb.
212-3903	Yellow	@ 2.9" - 46 lb.	@ 1.6" - 71 lb.
212-3905	Silver	@ 2.9" - 44 lb.	@ 1.6" - 97 lb.
212-3910	Orange	@ 2.9" - 42 lb.	@ 1.6" - 65 lb.
212-3908	Purple	@ 2.9" - 43 lb.	@ 1.6" - 59 lb.
212-3906	White	@ 2.9" - 28 lb.	@ 1.6" - 49 lb.

CLUTCH FLYWEIGHT - SKI DOO

DALTON PRO ULTIMATE HEAVY PINS FOR SKI- DOO TRA DRIVE CLUTCH

Heat treated alloy tool steel outer housing. CNC machined for exact fit. This high strength material and process provides a hard, smooth surface. A better surface finish can result in longer life for roller bushings when using big grams.

- Weight adjustable 14.5 - 25 grams
- Heat treated 17-4 stainless outer housing, CNC machined for exact fit

238-5400	DPAP-UH	Complete kit
238-5404	DPAP-OH	Outer housings only, set of three



238-5400

DALTON PRO PREMIUM PIN KIT FOR SKI DOO DRIVE CLUTCH

This kit offers DaltonPro quality in a very cost effective package and still offers full use of clicker adjustability with up to 20.4 grams. Although it may not offer the extreme flexibility as our "Ultimate Heavy" pin kit, it is DaltonPro quality.

- High quality alloy steel billet is hardened and tempered to our specification

238-5401	DPAP-MP	Medium Weight - 14.5 g-20.4 g
238-5403	DPAP-LT	Light Weight - 11.5 g - 17.4 g



DALTON CLUTCH RAMPS FOR SKI-DOO TRA 3 & TRA 5

- These new ramps are manufactured by Dalton and are heat treated and black oxide finished.

238-5410	DTR-1	Popular on the new Mach Z twin when used with our BRUTE ARMS for trail applications.
238-5412	DTR-1A	Similar to DTR-1 but has a slightly higher engagement
238-5413	DTR-2	Is a ramp that has been flattened out at the tip for aggressive upshift on the top end.
238-5411	DTR-3	Similar to the 419 ramp available from Ski-Doo



DALTON FULL SHIFT ROLLERS

DFSR-100

238-5557

These replacement rollers are built from hardened steel and contain a new custom bushing that has excellent durability and longer life than some of the fibre type bushings in similar applications. These rollers can be used to replace worn or flat spotted composite ones in the above applications. When the flyweights in the clutch can shift freely and roll, the result is improved clutch response, backshifting, belt life, and lasting performance.



DALTON COMPRESSION DCT-CQ CLUTCH TOOL

238-5004

- '08-'09 Ski-Doo XP Helixes

Dalton Compression tool for the new QRS clutch on 2008-2009 Ski- Doo "XP" series. After removing the clutch from the new XP this compression tool makes helix and secondary spring changes easy.



DALTON COMPRESSION DCT-CQ-10 CLUTCH TOOL

238-5005

- 2010 and newer XP models

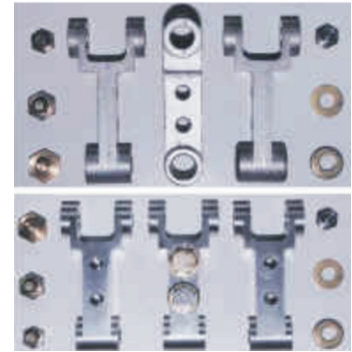
A different shaft and belt adjuster requires this version of the tool on the new chassis.



CLUTCH FLYWEIGHT - SKI DOO

HEAVY HITTER - TRA CLUTCH ARM KITS

- ISR stock legal, no clutch machining required, and allows full use of clicker adjustments.
- Billet aluminum arms are fully bushed and up to 5 times stronger than stock.
- Fully adjustable in low and mid range, optional threaded pin kit allows top end tuning.
- Full fastener kit offers tuning to .4 grams, like having hundreds of ramp profiles for perfect shift curve.
- Better acceleration, quicker mid range response, more top end, and fast back shift.
- Kits include 3 arms, fasteners, easy to understand installation instructions, and tuning guide.



TRA III Light	4 g lighter than stock	207-3290	\$399.95-F
TRA III	Standard kit	207-0395	\$359.95-F
TRA V	Standard kit	207-0495	\$359.95-F

TRA ROLLER BY THUNDERSHIFT \$81.95-F

- Great tuning component for stock TRA clutches or Heavy Hitter Arms.
- Stock rollers are 10 grams;.
- Steel rollers are heat treated, bushed, and ISR stock legal.
- Sold in sets of 3 with installation instructions.



Standard size	10 gram	207-1980
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TRA ADJUSTABLE CLUTCH PIN KIT BY THUNDERSHIFT

- Offers the widest range of pin weight combinations on the market at .2 to .4 gram increments
- More pin weight gives faster acceleration.
- Great addition to Heavy Hitter TRA Arms for maximum performance
- Fits TRA II, III, or V clutches.
- Kit includes 3 pins, fasteners, wrenches, installation instructions, and tuning guide.



DESCRIPTION	PART #	RETAIL
Light Pin Kit (3.8 - 18 grams)	207-1900	\$ 99.95-F

SKI-DOO QUICK SHIFT THREADED PIN KIT

- Economical pin upgrade kit for faster acceleration.
- Two sizes to fit all altitudes. (Heavier for higher elevations and lighter for lower)
- Coated steel pins resist corrosion.
- Up to 13 different combinations for all engine sizes.
- Kit contains set of 3 pins, adjustment screws, cotter keys, weight chart, and instructions.



DESCRIPTION	PART #	RETAIL
Light steel pins, 10.5-15.5 grams	207-1991	\$ 48.95-F
Aluminum pins, 4.5-9.5 grams	207-1993	\$ 49.95-F

SKI DOO SQUARE SHAFT CLUTCH BUSHING

214-0434

- OE 504-2280-00, 504-2369-00
- Sold each

Standard size	10 gram	207-1980
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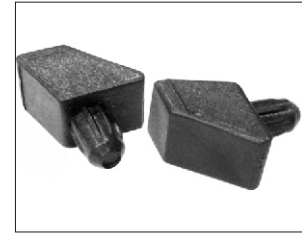


BOMBARDIER CAM SLIDER SHOES & ROLLERS

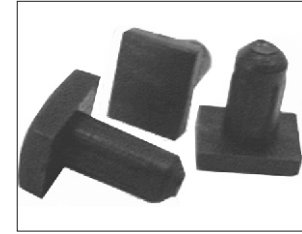
MODEL	YEAR	OEM #	PART #
MOTO SKI			
Chimo 440	74-75		03-151-07
Futura (all)	76-79	414-0126.00	03-151
Futura (all)	80-81	504.1207.00	03-151-06
Furtura (all)	1982	504.1202.00	03-151-12
Grand Prix Special	79-81	504.1207.00	03-151-06
Grand Sport 440	74-75		03-151-07
Mirage (all)	79-83/85	414.0126.00	03-151
Nuvik (all)	75-76	414.0126.00	03-151
Sonic 250	1982	504.1202.00	03-151-12
Sonic 340	75-78	414.0126.00	03-151
Sonic L/C	1984	414.0126.00	03-151
Spirit 250	76-83	414.0126.00	03-151
Super Sonic (all)	1979	414.0126.00	03-151
Super Sonic	80-81	504.1207.00	03-151-06
TS 400	74-75		03-151-07
Ultra Sonic	80-81	504.1207.00	03-151-06
Ultra Sonic	1982	504.1202.00	03-151-12
SKI DOO			
All Models	86-87	414.0126.00	03-151
Alpine II	88-95	414.9180.00	03-151-01
Blizzard 550	79-81	504.1207.00	03-151-06
Blizzard 7500 Plus	80-81	504.1207.00	03-151-06
Blizzard 9500 Plus	80-81	504.1207.00	03-151-06
Blizzard MX	1981	504.1207.00	03-151-06
Blizzard 9500, MX	1982	504.1202.00	03-151-12
Blizzard 9700, MX	83-84	504.1202.00	03-151-12
Elan 250	88-96	414.0126.00	03-151
Everest 500, E, LC	80-81	504.1207.00	03-151-06
Everest 500, E, LC	82-83	504.1202.00	03-151-12
Expedition TUV	2009	417.1270.16	03-202-14
Formula 500, 58., DLX	97-01	414.9180.00	03-151-01
Formula Dlx 600/700 GS/GSE	2001	414.9180.00	03-151-01
Formula Dlx 600, 700	2000	414.9180.00	03-151-01
Formula III	96-00	414.9180.00	03-151-01
Formula Mach I	89-94	414.9180.00	03-151-01
Formula MX	85-86	504.1202.00	03-151-12
Formula MX	87-93	414.9180.00	03-151-01
Formula Plus	1985	504.1202.00	03-151-12
Formula Plus	86-93	414.9180.00	03-151-01
Formula ST, STX, SS, SL, Z	94-00	414.9180.00	03-151-01
Grand Touring	93-01	414.9180.00	03-151-01
Grand Touring 600	2010	417.1270.16	03-202-14
Grand Touring 1200 LE/SE	2010	417.1270.16	03-202-14
GSX. GTX (all)	08-10	417-1270-16	03-202-14
Mach Z, MX Z	94-01	414.9180.00	03-151-01
MX ZX 600, 700, 800	00-01	414.9180.00	03-151-01
MX Z 600, 1200, Sport, TNT	09-10	417-1270-16	03-202-14
MX Z Trail	08-09	417-1270-16	03-202-14
MX ZX 600, 1200	09-10	417-1270-16	03-202-14
Nordik 50, 60	87-91	414.0126.00	03-151
Renegade 1200, Adrenaline, X	2010	417-1270-16	03-202-14
Safari	84-85	414.9180.00	03-151-01
Skandic 380, 500	95-99	414.9180.00	03-151-01
Summit	94-02	414.9180.00	03-151-01
Summit, Summit X	08-10	417-1270-16	03-202-14
Touring	95-00	414.9180.00	03-151-01



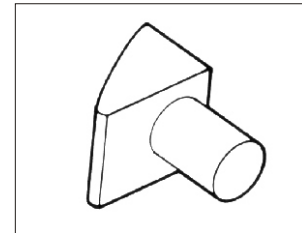
03-151 \$1.15-L



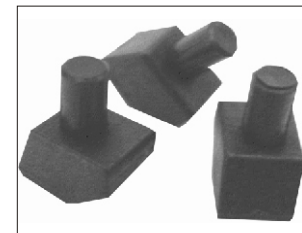
03-151-01 \$ 1.05-L



03-151-06 \$1.15-L



03-151-07 \$.95-L



03-151-12 \$1.25-L



03-202-14 \$26.95-H

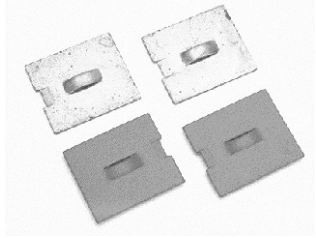
CLUTCHING - SKI DOO

BOMBARDIER DRIVE CLUTCH SLIDES 03-150-04 \$8.30-J

- Sold as a set of 4
- Moto Ski 504.2207.00
- Fits most 74-76 models

FITS:

Alpine	75-76	Elan	74-75
Elite	1974	Everest 440	74-75
Nordik	1974	Olympic	74-76
TNT	74-75		



TRA SPIDER CLUTCH BUTTONS 03-152 \$2.95-L (SOLD INDIVIDUALLY)

- All TRA clutches 1985 - present
- Ski Doo OEM 420-4600-50 use 420-4600-45 and 417-222-107

FITS:

85-97 Formula models with TRA clutch	95-97 Grand Touring, SLE
95-97 Skandic	95-97 Summit
98-00 Formula III 600, 700, 800	98-00 Grand Touring 700, SE
98-00 Mach 1, Z, MX ZX	

