

# D.I.D.<sup>®</sup>

POWERED BY TECHNOLOGY

MOTORCYCLE  
**CHAIN  
& GRIM**

2023 CATALOG





## WORLDWIDE MANUFACTURES

D.I.D is the World's #1 original parts (OE) supplier for Japanese and European motorcycle manufacturers.



### DIRECT

Rigidity is D.I.D's original concept born from years of experience in MotoGP development. Rigidity in a chain means resistance to chain deformation and elongation.



LOW RIGIDITY



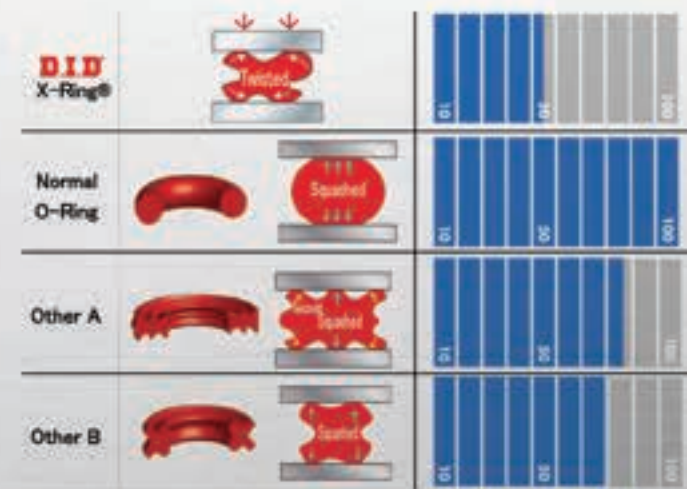
HIGH RIGIDITY

Pin flex robs your bike of its horsepower. The high rigidity of D.I.D pins means a quicker response, resistance from chain elongation, and smoother handling.

D.I.D brand drive chains and aluminum rims are all manufactured in Kaga, Ishikawa prefecture, Japan and supplied through motorcycle dealers worldwide. These top quality products are meticulously made by skilled technicians in order to provide outstanding performance for all riders.

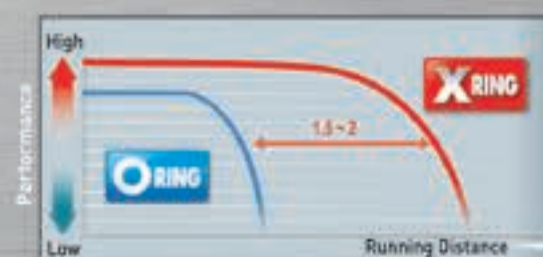
### X RING

D.I.D's patented X-Ring is superior to other O-Ring designs. The X-Ring construction reduces friction by twisting between the side plate instead of being squashed. The graph below shows friction levels of the X-Ring compared to other seals.



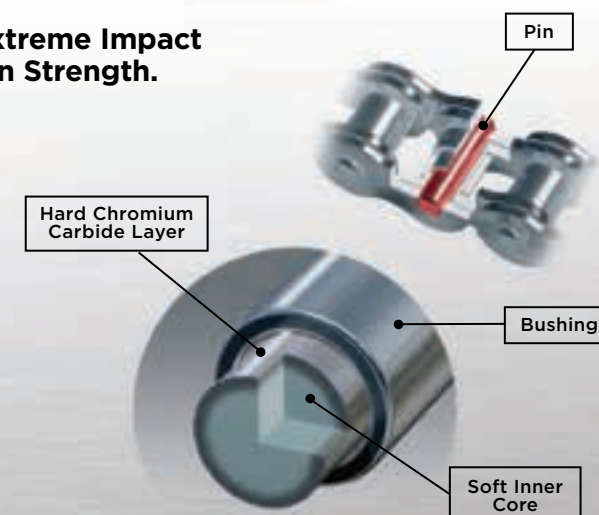
### ADVANCED TECHNOLOGY

Chain elongation is caused by pin wear. D.I.D's patented X-Ring holds lubrication within the bushing increasing the pin and chain life by 1.5 - 2X.



### SDH PIN

Extreme Impact Pin Strength.



SDH pin treatment creates an extremely hard chromium carbide layer on the pin's surface. The inner core remains soft to absorb shock loads.





VR46

D.I.D. X VR46



9X WORLD CHAMPION ROSSI



VR46 SERIES



AVAILABLE SIZES  
520VR46 - 800cc  
525VR46 - 1000cc

DIRECT

VALENTINO ROSSI  
CHAIN

X RING

Official Valentino Rossi collaboration chain with patented X-Ring seals and a Rossi colored master link.

SILVER

SOLID BUSH

THE DOCTOR



AVAILABLE SIZES  
520Doctor - 800cc  
520ZVM-X - 1200cc  
525ZVM-X2 - 1300cc  
530ZVM-X2 - 1400cc

DIRECT

THE DOCTOR  
SPECIAL EDITION

THE DOCTOR 800CC

Comes with a 520 sized 120 Link, first class chain, a stainless steel plate with the champion's signature, plastic display with a laser engraved image of Rossi, each with its own serial number. Only 10 available in North America.

X RING

SOLID BUSH



OFFICIAL D.I.D. -  
VR46 MERCH



## STREET/ADVENTURE



## ZVM-X SERIES



AVAILABLE SIZE	
520ZVM-X	1200cc
525ZVM-X2	1300cc
530ZVM-X2	1400cc

DIRECT

X RING

RACING

SOLID BUSH

GOLD

SILVER

BLACK

### SUPERBIKE STRENGTH

D.I.D.'s ZVM-X Series has greater strength than the VX Series and is designed for heavyweight motorcycles with tremendous torque and horsepower.

### LONGEST WEAR LIFE

The twisting action of the X-Ring increases its sealing performance and its four contact points minimize power loss.

### QUICKER RESPONSE

The ZVM-X Series' Direct Energy Transfer, born from our experience in MotoGP, means greater stretch resistance under load.

## VO SERIES



AVAILABLE SIZE	
420V	100cc
520VO	750cc
525VO	900cc
530VO	1000cc
630V	1200cc

DIRECT

O RING

SOLID BUSH

GOLD

### RIDE WITH D.I.D.

Applicable for street and off-road bikes and ATV's up to 1000cc.

### UNCOMPROMISED QUALITY

D.I.D.'s top quality O-Ring chains are quad stake riveted with solid bushings for superior strength and long chain life."

## VX SERIES



AVAILABLE SIZE	
428VX	350cc
520VX3	800cc
525VX3	1000cc
530VX3	1100cc

DIRECT

X RING

GOLD

SILVER

### WIDE RANGE OF MOTORCYCLES

D.I.D.'s VX Series includes the 428VX, 520VX3, 525VX3, and 530VX3 chains to for numerous street and off road motorcycles from 350cc to 1100cc.

### LONGER CHAIN LIFE

D.I.D.'s VX Series boasts a much longer chain life than the VO Series due to the patented X-Ring technology. The 520VX3 has a 32% longer chain life than the 520VO and the 525 and 530VX3 has a 41% longer chain life!

### SMOOTHER HANDLING

D.I.D.'s VX Series has increased rigidity in order to reduce flex, so riders can ride smoother with confidence.





SEALED RACING



FOCUSED ON  
UNCOMPROMISING  
QUALITY HAS MADE  
D.I.D THE WORLD'S #1  
ORIGINAL PARTS SUPPLIER  
FOR JAPANESE  
AND EUROPEAN  
MOTORCYCLE  
MANUFACTURERS.

## 520ERV7



DIRECT

X-RING

RACING

SOLID  
BUSH

GOLD

### MOTOGP SPEC

D.I.D's 520ERV7 is the chosen chain of MotoGP, Superbike, and road racing teams alike.

### TOP OF THE LINE

Upgraded from the 520ERV3, the 520ERV7 boasts a 3% higher tensile strength, a 13% longer chain life, and less friction due to X-Ring improvements.

### ROAD RACING

Flagship model for street bikes and enduro riding.



## 520ERV7



X-RING

RACING

SOLID  
BUSH

GOLD

### ENDURO BOSS

Upgraded from the 520VT2, the 520ERV7 is now 2% lighter and has a 15% longer lifespan, all while maintaining the same tensile strength.

### ULTIMATE OFF-ROAD X-RING CHAIN

Born from our original motocross chain, the 520ERV7 now adds the benefits of an X-Ring. New off-road chain choice for the top AMA teams!

## 520ATV2



X-RING

RACING

SOLID  
BUSH

GOLD

### OPTIMAL ATV CHAIN

Steel alloy construction to minimize heat cracking in cold weather due to severe heating and cooling of the chain during competition.

### FASTER & STRONGER

7% lighter, 10% stronger, and 8% longer chain life than the original ATV chain.



NON-SEALED RACING



415ERZ



HIGH RIGIDITY

RACING

SDH PIN

SOLID BUSH

GOLD

ROAD RACING

The 415ERZ chain is a road racing chain specifically for Moto3 Regulations.

SMALL BIKE  
BIG PERFORMANCE

Our 415ERZ can accommodate matching sized bikes with up to 250cc's of power.

LESS WEIGHT

Perfect size chain for your track bike to help you save on weight.

420NZ3



X RING

RACING

SOLID BUSH

GOLD

MADE FOR FUTURE CHAMPIONS

Made for future champions, the NZ series includes premium chains specifically for mini bike racing.

428NZ



X RING

RACING

SOLID BUSH

GOLD

DESIGNED FOR JR. CHAMPIONS

Our NZ Series is designed for mini champions and vintage bikes alike.

MULTIPLE COLORS

The NZ series chains are available in standard and gold & black (G&B) colors.

MULTI-USE CHAINS

This is a great all-around non-sealed chain.





## NON-SEALED RACING



**JUSTIN BARCIA**

TLD/RED BULL/GASGAS FACTORY RACING  
CHOOSES THE 520MX CHAIN AND  
DIRTSTAR ST-X RIMS

## 520ERS3



SOLID  
BUSH

RACING

GOLD

### TRIALS TOP CHOICE

One of the top choices for trials teams such as Repsol Honda, which includes riders Takahisa Fujinami and Toni Bou.

### STRONG, YET LIGHT

Using the latest SDH pin technology, the 520ERS3 boasts strength, but is our lightest 520 sized chain making it on-of-a-kind.

### UNMATCHED PERFORMANCE

Utilizing a rivet-style (ZJ) master link, this is an excellent choice for smaller street bikes up to 250CC, such as the GSX-250R.

## 520ERT3



SOLID  
BUSH

RACING

GOLD

### CHAIN OF CHOICE FOR AMA TEAMS

The non-sealed 520ERT3 is our #1 selling motocross chain and is the top choice for 250 class factory race teams.

### THE CUTTING EDGE

With a great tensile strength of 8,300 lbs and weighing in at 2.99 lbs/100 links, you can see why this is the no. 1 trusted motocross chain!

## 520DZ2



SOLID  
BUSH

RACING

GOLD

### GREAT VALUE HIGH PERFORMANCE

The 520DZ2 is budget-friendly, high-performance racing chain designed specifically with local motocross champions in mind.

### LONGER CHAIN LIFE

Designed to meet the demand of even the most grueling MX tracks with SDH technology.

### SDH TECHNOLOGY

The use of our patented SDH pin technology results in a longer life of your chain, such as the GSX-250R.

## 520MX



SOLID  
BUSH

RACING

GOLD

### MOTOCROSS MONSTER

The 520MX boasts our highest rated tensile strength among non-sealed chains at 8,930 lbs. Perfect for the beating that chains take during tough, off-road races.

### CHAMPIONSHIP QUALITY

With numerous SX, MX, and ATVMX championships under its belt, the 520MX and its incredible strength is the top choice for 450 class factory race teams.



## NON-SEALED



## NZ SERIES



### VINTAGE BIKES

A step up from a standard chain, the NZ Series is great for vintage bikes or smaller bikes with less torque.



AVAILABLE SIZE	
420NZ3 - 150cc	
428NZ - 100cc	
520NZ - 250cc	
525NZ - 400cc	
530NZ - 750cc	

## STANDARD SERIES



### SIMPLE D.I.D QUALITY

The Standard chain series is simply that; a chain without any technological advancements. A simple chain made with D.I.D precision and quality.

AVAILABLE SIZE	
420D - 80cc	
428D - 125cc	
428HD - 125cc	
520 - 250cc	
525 - 400cc	
530 - 400cc	

## KART CHAINS

### 219HTM



### REASONABLE ENTRY CHAIN

Great chain for beginners that delivers stable performance at a low cost with a G&B finish.

### 219HTZ



### TOP PERFORMING KART CHAIN

Highly rigid, low friction non-seal chain for racing karts. Available in G&G Finish.

### 219HV2



### HIGH-PERFORMANCE SEAL CHAIN

Newly developed seal ring with special reinforced pins specifically for kart racing. Available in Silver finish



# RIMS/CHAIN KITS

## RIMS SECTION

**DIRTSTAR**



### STRONGER THAN OE RIMS

All DirtStar® rims are made from 7-series aluminum alloy, which make them stronger than stock (OE) rims.

### EASY TO LACE UP

All DirtStar® rims are designed to be compatible with OE hubs, spokes and nipples.

### ORIGINAL SERIES

#### GREAT VALUE!

20% stronger than OE rims making these a great upgrade



### ST-X SERIES

#### MOTOCROSS MUST-HAVES

40% stronger than OE rims and the go-to choice for AMA race teams.



## CHAIN KIT SECTION

Changing/upgrading your bike's drive system just became so easy, eliminating the guess-work in part numbers and fitments. Each kit contains high-quality steel JT Sprockets and a D.I.D chain to directly fit your bike. Changing your chain and sprockets at the same time are recommended to help reduce unnecessary wear.



### STREET KIT

**ZVM-X SUPER STREET OR VX PRO-STREET X-RING CHAIN**  
+  
**JT SPROCKET**, high carbon steel rear and chromemoly steel countershaft sprocket designed to replace your stock OE gearing or one tooth over/under.

DIRECT

X RING

SOLID BUSH

GOLD

### OFF-ROAD KIT

**520DZ2 MOTOCROSS CHAIN**  
OR  
**520VX3' X-RING CHAIN**  
+

**JT SPROCKET**, high carbon steel rear and chromemoly steel counter-shaft sprocket designed to replace your stock OE gearing or one tooth over/under.

Application chart can be found at [www.didchain.com/chainkits](http://www.didchain.com/chainkits).



DIRECT

X RING

SOLID BUSH

GOLD

## KM500R CHAIN TOOL



To be as tough as our tool, we have now introduced a **NEW metal box** for the KM500R. The D.I.D KM500R tool is a unique 3-in-1 tool with the ability to cut your chain, press-fit connecting link side plates, as well as rivet the pin head.

The design of the KM500R tool does not allow over-riveting and should only be used for D.I.D's ZJ rivet style master links, as well as the FJ press-fit clip style master links.

This tool may be used to cut any 520, 525, 530, or 532 sized chains.





CHAIN APPLICATIONS

CATEGORY	Disp.(c.c.)	100	125	250	350	400	500	750	800	900	1000	1100	1200	1300	1400
STREET & SUPERSPORT	428VX														
	520V0														
	525V0														
	530V0														
	520VX3														
	525VX3														
	530VX3														
	520ZVM-X2														
	525ZVM-X2														
	525ZVM-X2														
ROAD RACING & SUPERBIKE	415ERZ														
	520ERS3														
	520ERV7														
SUPERCROSS & MOTOCROSS	415ERZ														
	420NZ3														
	428NZ														
	520DZ2														
	520ERT3														
	520MX														
DUAL PURPOSE & ADVENTURE	428VX														
	520VX3														
	525VX3														
	530VX3														
	520ZVM-X2														
	525ZVM-X2														
	530ZVM-X2														
TRIAL	520ERS3														
RALLY & ENDURO	520ERTV														
	520VX3														
	520ERV7														
ATV	428VX														
	520V0														
	525V0														
	520VX3														
	520ATV2														

The above displacement chart is for reference only; displacement limitations may vary from model to model. Displacement guidelines are **NOT** applicable for converted (modified) motorcycles, chain conversions from Original Equipment Manufacturer's specifications, or racing motorcycles.

If your stock motorcycle cam with an "endless" chain, a replacement chain must be installed with a river type master link.

Please check the application chart on the D.I.D website. \*Master links are NOT interchangeable between old and new chain models.

CHAIN SPECIFICATIONS

Chain	Category	Pin Length (inches)	Pin Dia. (inches)	Plate Thickness		Weight/ 100L (lbs)	Tensile Strength (lbs)	Seal	Chain Life Index	Master Link			Max CC
				IN	OUT					ZJ	FJ	RJ	
Exclusive Racing Chains													
415ERZ	Mini MX	0.531	0.156	1.5	1.5	1.45	4,540	N/A	410	Option	NA	Included	250
420NZ3	Mini MX	0.659	0.156	1.8	1.8	1.18	4,930	N/A	410	N/A	Option	Included	150
428NZ	Mini MX	0.744	0.177	2	2	2.2	5,740	N/A	410	Option	Included	N/A	100
520ERS3	Trial	0.659	0.206	1.8	1.8	2.59	5,800	N/A	410	Option	N/A	Included	250
520ERT3	Motocross	0.693	0.21	2	2	2.99	8,300	N/A	410	Option	N/A	Included	450
520MX	Motocross	0.732	0.21	2.2	2.2	3.43	8,930	N/A	410	Option	N/A	Included	500
520DZ2	Motocross	0.695	0.206	2	2	3.08	7,870	N/A	410	Option	N/A	Included	450
520ERTV	Enduro	0.736	0.206	1.8	2	3.22	8,440	X	3,500	Option	Included	N/A	500
520ATV2	ATV	0.738	0.206	2	2	3.42	8,430	X	3,250	Option	Included	N/A	750
520ERV7	Baja / Super Sport	0.752	0.217	2	2	3.41	8,800	X	3,500	Included	N/A	N/A	1,000
Super X-Ring Chains													
520ZVM-X	Street	0.83	0.206	2.2	2.2	3.59	8,745	X	3,500	Included	N/A	N/A	1,200
525ZVM-X2	Street	0.913	0.217	2.4	2.6	4.65	10,408	X	4,000	Included	N/A	N/A	1,300
530ZVM-X2	Street	0.98	0.217	2.4	2.6	4.85	10,408	X	4,000	Included	N/A	N/A	1,400
Pro X-Ring Chains													
428VX	Street / ATV	0.813	0.197	2	2	2.66	7,420	X	2,700	Option	Included	N/A	350
520VX3	Street / ATV	0.736	0.206	2	2	3.35	8,210	X	3,500	Option	Included	N/A	800
525VX3	Street	0.866	0.217	2.2	2.2	4.09	9,980	X	4,000	Included	Option	N/A	1,000
530VX3	Street	0.931	0.217	2.2	2.2	4.29	9,980	X	4,000	Included	N/A	N/A	1,100
Standard O-Ring Chains													
420V	Commuter	0.665	0.156	1.5	1.5	1.6	3,560	O	700	Option	N/A	Included	100
520V0	Street / ATV	0.795	0.2	2	2	3.31	8,000	O	2,350	Option	Included	N/A	750
525V0	Vintage Bikes	0.886	0.205	2.2	2.2	3.88	9,220	O	2,500	Included	Option	N/A	900
530V0	Street / ATV	0.963	0.217	2.2	2.4	4.39	9,220	O	2,500	Included	N/A	N/A	1,000
630V	Street / ATV	0.996	0.235	2.4	2.4	6.52	10,820	O	2,050	[XJ]	Included	N/A	1,200
Super Non-O-Ring Chains													
520NZ	Vintage Bikes	0.722	0.206	2.2	2.2	3.54	8,050	N/A	410	Option	Included	N/A	250
525NZ	Vintage Bikes	0.811	0.206	2.4	2.4	3.99	8,820	N/A	410	Option	Included	N/A	400
530NZ	Vintage Bikes	0.888	0.206	2.4	2.4	4.07	8,600	N/A	410	Option	Included	N/A	750
Standard Non-O-Ring Chains													
420D	Small Bikes	0.581	0.156	1.5	1.5	1.54	3,970	N/A	100	N/A	N/A	Included	80
428D	Small Bikes	0.657	0.177	1.5	1.5	1.84	4,230	N/A	100	N/A	N/A	Included	125
428HD	Small Bikes	0.744	0.177	2	2	2.2	5,250	N/A	100	N/A	N/A	Included	125
520	Small Bikes	0.689	0.2	2	2	3.12	6,700	N/A	100	N/A	N/A	Included	250
525	Small Bikes	0.732	0.2	2	2	3.28	6,930	N/A	100	N/A	N/A	Included	400
530	Small Bikes	0.799	0.2	2	2	3.71	6,930	N/A	100	N/A	N/A	Included	400

Riveting FLARE DIMENSIONS

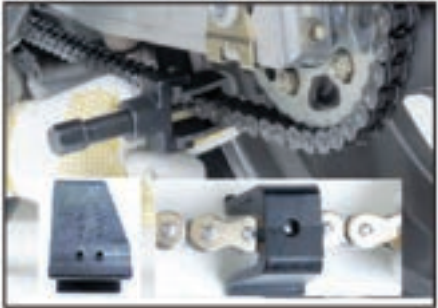
		4-Pitch Size		520 Size		525 Size		530 Size	
		415ERZ	0.165" to 0.173"	520NZ	0.217" to 0.228"	525NZ	0.217" to 0.228"	530NZ	0.217" to 0.228"
RJ	420NZ3	0.174" to 0.187"		520V0	0.213" to 0.220"	525V0	0.217" to 0.228"	530V0	0.217" to 0.228"
	420V	0.187" to 0.195"		520VX3	0.217" to 0.228"	525VX3	0.224" to 0.236"	530ZVM-X2	0.224" to 0.236"
FJ	428NZ	0.187" to 0.195"		520ZVM-X	0.217" to 0.228"	525ZVM-X2	0.224" to 0.236"		
	428VX	0.205" to 0.217"		520ATV2	0.217" to 0.228"				
ZJ				520DZ2	0.217" to 0.228"				
				520ERS3	0.217" to 0.228"				
				520ERT3	0.215" to 0.225"				
				520ERTV	0.217" to 0.228"				
				520ERV7	0.217" to 0.228"				
				520MX	0.217" to 0.228"				



CHAIN CUTTING



1a. Before cutting your chain, loosen it using your motorcycle's rear wheel adjusters. Position your KM500R or KM501E over your chain on the bottom side of your swingarm; cut the pin on the right side of the link you choose first. If your chain has a master link, it is easier to cut the chain at the master link.



2a. Set the Cutting pin location on your chain tool's U-shaped holder to the point A position.



3a. To align the tool's Cutting pin with the chosen pin head, turn the tool's large bolt head clockwise "by hand" until the Cutting pin comes in contact with the pin head. At this point, make sure that the cutting pin is lined up with the center of the pin you wish to push out.



4a. Use a 27mm closed in wrench to hold firm the body of your chain tool while using a closed end 19mm wrench on the tool's hexagon bolt head to tighten. It will be easier to tighten the bolt if you position your wrenches 30° apart.



5a. Turn 19mm wrench clockwise on the tool's Hexagon bolt head to push the pin completely out.



6a. After pushing the pin out, disassemble the chain tool from the chain.

PRESS FITTING CONNECTING LINK SIDE



7a. Connect the new chain to the old chain using either a wire or connecting link. Shift transmission into neutral and slowly pull the old chain from under the swingarm toward the rear which then pulls the new chain from the top towards the countershaft sprocket. When new chain goes completely around the front sprocket and out under the swingarm, disconnect the old chain and pull both ends together under the center of the swingarm.



8a. Before installing the connecting link, be sure to put a heavy coat of the supplied grease into the holes of the bushings of the new chains' links, and on the surface of the connecting link's pins. If you are installing an O-Ring or X-Ring® chain, don't forget to put heavily greased ORings or X-Rings on the pins between the sideplates on both sides of the chain.



9a. With the inside of the connecting link pushed into place holding the chain together with the pins sticking out the outside of the chain, slide the O-Rings/X-Rings® into place and temporarily press the other side plate on the pins by hand. Set the Cutting pin location on your chain tool's Ushaped holder to the point A position.



10a. Slide the U-shaped portion of the tool over the inside of the connecting link. Care-fully line up the dimples on the inside of the U-shaped holder with the pin heads of the connecting link. The Cutting pin also needs to be flipped over to where the rivet side is pointed out. Fit the Tool body together and position the Plate holder onto the sideplate that needs to be pressed on. (For FJ clip type links, flip Plate holder over.) Slide the pin's riveting side into the Plate holder and slide the pin side into the inside of the tool.



11a. Hold the hexagon part of the tool body with a 27mm closed end wrench and turn the bolt with a 19mm closed in wrench clockwise until the top of the pins make contact with the groove in the Plate holder.



12a. After pressing the sideplate on, disassemble the chain tool and remove it from the chain. The next step is to flare out the pins heads for ZJ (Rivet type) or installing the slide clip for the FJ (Clip type) master link.

RIVETING ZJ CONNECTING LINK PIN



13a. Position the U-shaped holder as seen above.

13b. For clip type (FJ) install the open end of the clip so that it faces in the opposite direction of the chain drive direction.



14a. Set aside the Plate Holder and set the pin on the tool body to the B position to flare out the pin heads.



15a. Hold the hexagon part of the tool body by with a 27mm closed in wrench, and the bolt head with a 19mm closed end wrench; turn clockwise until the flare part of the pin head makes contact with the surface of the side plate.



16a. Example of proper flared pin head. If your pin heads are not flared to this extent, Realign chain tool and flare pin heads until they look like the above photo. If your pin heads have cracks or the connecting link is stiff when flexed, remove connecting link and install a new one.

16a. FLARE DIMENSIONS

5.3 to 5.6mm	.....520V0	5.5 to 5.8mm	.....520ERV7
5.5 to 5.8mm	.....525V0	5.5 to 5.8mm	.....520ERTV
5.5 to 5.8mm	.....530V0	5.5 to 5.8mm	.....520ATV2
5.3 to 5.6mm	.....428VX	5.5 to 5.8mm	.....520MX
5.5 to 5.8mm	.....520VX3	5.5 to 5.8mm	.....520ERT3
5.7 to 6.0mm	.....525VX3	5.5 to 5.8mm	.....520DZ2
5.7 to 6.0mm	.....530VX3	5.5 to 5.8mm	.....520ERS3
5.5 to 5.8mm	.....532ZLV	4.2 to 4.4mm	.....415ERZ
5.5 to 5.8mm	.....520VR46	4.7 to 4.9mm	.....428NZ
5.7 to 6.0mm	.....525VR46	5.5 to 5.8mm	.....520NZ
5.5 to 5.8mm	.....520ZVM-X	5.5 to 5.8mm	.....525NZ
5.7 to 6.0mm	.....525ZVM-X	5.5 to 5.8mm	.....530NZ
5.7 to 6.0mm	.....530ZVM-X		
5.7mm to 6.0mm	.....*525ZVM-X, 530ZVM-X, 525VX3 & 530VX3		

\*Note: Make sure that the Cutting pin has a groove if you are riveting the 525ZVM-X, 530ZVM-X, 525VX3 and 530VX3 chains. These chains can not be riveted by the old Cutting pins.



KM500R Cutting and Riveting Pin

Groove