# **Emhart Aftermarket Products**

Heli-Coil	Did you know Indy and NASCAR racing teams use Heli-Coil inserts. A Boeing 747 has 250,000 Heli-Coil inserts as original equipment There are 250,000 Heli-Coil inserts in every space shuttle. Why? All the above use lightweight, exotic materials and need strong threads.
	What does this mean to you?
	Today's cars are also made of light materials, such as aluminum, and tapped hole damage is a common occurrence. Stripping during removal of seized bolts, cross-threading and wear from constant assembly and disassembly and corrosion can also cause thread dam- age. For these reasons companies like General Motors, Ford, Chrysler, Boeing, Pratt & Whitney, McDonnell-Douglas, NASA, Harley-Davidson, Caterpillar, Cummins, General Electric, Rolls-Royce, BMW, Porsche and many more, including the military, all use Heli- Coil inserts as original equipment in critical threaded areas of parts made of lightweight materials. They have found that the use of Heli-Coil inserts gives them a stronger and more reusable thread that resists the effects of corrosion.
	The inserts offered in all of our Heli-Coil Thread Repair Kits are made of the same high quality stainless steel as the inserts used by these companies. The same technology that took us to the moon is available to fix the damaged threads on your car, truck, motorcycle, boat; anywhere they happen. This repair is better than the original thread. It is quick, easy, permanent and in almost all cases less expensive than replacing the part.
POP	POP Blind Rivets are available in a variety of sizes, types and materials combined with dome, countersunk or large-flange head styles. This makes POP blind rivets ideal for a wide range of riveting applications. They are the most popular rivets for automotive use. Also available from POP are Sheet Metal Inserts, a general purpose threaded insert with exceptionally strong torque-out and pull-out characteristics, POP Plastic Rivets, a one-piece, all-plastic expansion rivet, POP WELL-NUT Threaded Inserts, a flanged rubber bushing with brass threads molded into one end, and a variety of manual and power tools.
Drill-Out	Drill-Out is a drill bit and extractor in one. The drill bit is made from high quality tool steel that has been hardened and tempered giving it the ability to even drill into Grade 8 and stainless steel bolts. The extractor is made from hard, flexible die steel which allows it to bite into any bolt or stud without slipping or stripping.
Chase ′em Back™	The unique, patented hinge design of Chase 'em Back allows for the repair of damaged or corroded threads on most studs by attaching to the undamaged threads and working back through the damaged areas. Made from heat-treated steel, sets are available for the most common inch and metric thread sizes. Other sets include the 8-piece Sav-A-Stud Plus <sup>™</sup> set for wheel stud repair and the 20-piece Spindle-Saver <sup>™</sup> set for front wheel drive spindle repair.

HELI-COIL

DRILL-OUT



## **Inch Thread Repair Kits**

Heli-Coil has complete coverage of inch thread repair sizes. Available from stock are Inch Coarse kits in sizes #8 through 1-1/2" and Inch Fine kits in sizes #10 through 1-1/2". Kits up to 3/4" are packaged in durable placon or vinyl pouches, and kits 7/8" and larger are packaged in sturdy metal cases and contain the proper size high speed steel drill. All kits contain a Heli-Coil tap, installation tool, a quantity of inserts and detailed instructions.

INCH COARSE			Kit Contents and Replacement Parts						
THREAD SIZE + LENGTH	KIT PART NO.	KIT PKG. TYPE	INSERTS PER KIT	TAP Part no.	INSTALLATION TOOL PART NO.	TOOL TYPE	PACKAGED INSERT PART NO.	PACKAGED INSERT QTY.	DRILL SIZE
8-32 x .246 10-24 x .285 12-24 x .324	5521-2 5521-3 5521-1	A A A	12 12 12	819-2 819-3 819-1	2288-2 2288-3 2288-1	2 2 2	R1185-2 R1185-3 R1185-1	12 12 12	11/64 13/64 15/64
1/4-20 x .375* 5/16-18 x .469* 3/8-16 x .562* 7/16-14 x .656*	5521-4 5521-5 5521-6 5521-7	A A A A	12 12 12 6	819-4 819-5 819-6 819-7	5288-4 5288-5 5288-6 5288-7	1 1 1 1	R1185-4 R1185-5 R1185-6 R1185-7	12 12 12 6	17/64 21/64 25/64 29/64
1/2-13 x .750* 9/16-12 x .844 5/8-11 x .938 3/4-10 x 1.125	5521-8 5521-9 5521-10 5521-12	A B B B	6 6 4	819-8 819-9 819-10 819-12	5288-8 2288-9 5288-10 2288-12	1 2 1 2	R1185-8 R1185-9 R1185-10 R1185-12	6 6 6 4	17/32 19/32 21/32 25/32
THE FOLLOWING KITS COME COMPLETE WITH HIGH SPEED STEEL DRILL BIT FOR 1/2" CHUCK.									
7/8-9 x 1.312 1-8 x 1.500 1-1/8-7 x 1.688 1-1/4-7 x 1.875 1-3/8-6 x 2.062 1-1/2-6 x 2.250	5521-14 5521-16 5521-18 5521-20 5521-22 5521-24	C C C C C C C	6 6 5 4 4 4	8187-14 8187-16 8187-18 8187-20 8187-22 8187-24	3724-14 3724-16 3724-18 3724-20 3724-22 3724-22 3724-24	2 2 2 2 2 2 2 2	K1185-14 K1185-16 K1185-18 K1185-20 K1185-22 K1185-24	1 1 1 1 1 1	29/32 1-1/32 1-5/32 1-9/32 1-13/32 1-17/32
*Sizes included in N	laster Thread Re	epair Set -	Part No. 5621		а с		A - Carded	B - Pouch	C - Metal Cas



Drill

INCH FINE				Kit Contents and Replacement Parts					
THREAD SIZE + LENGTH	KIT Part no.	KIT PKG. TYPE	INSERTS PER KIT	TAP Part no.	INSTALLATION TOOL PART NO.	TOOL TYPE	PACKAGED INSERT PART NO.	PACKAGED INSERT QTY.	DRILL SIZE
10-32 x .285** 1/4-28 x .375** 5/16-24 x .469** 3/8-24 x .562**	5528-3 5528-4 5528-5 5528-6	A A A A	12 12 12 12 12	821-3 821-4 821-5 821-6	2299-3 2299-4 6299-5 6299-6	3 3 3 3	R1191-3 R1191-4 R1191-5 R1191-6	12 12 12 12	13/64 17/64 21/64 25/64
7/16-20 x .656** 1/2-20 x .750** 9/16-18 x .844 5/8-18 x .938 3/4-16 x 1.125	5528-7 5528-8 5528-9 5528-10 5528-12	A A B B B	6 6 6 6 4	821-7 821-7 821-8 821-9 821-10 821-12	6299-7 6299-8 2299-9 2299-10 2299-12	3 3 3 3 3 3	R1191-7 R1191-7 R1191-8 R1191-9 R1191-10 R1191-12	6 6 6 6 4	29/64 33/64 37/64 41/64 49/64
THE FOLLOWING KITS COME COMPLETE WITH HIGH SPEED STEEL DRILL BIT FOR 1/2" CHUCK.									
7/8-14 x 1.312 1-14 x 1.500	5528-14 5528-16	C C	6 6	8193-14 8193-16	535-14 535-16	4	K1191-14 K1191-16	1	57/64 1-1/64
1-12 x 1.500 1-1/8-12 x 1.688 1-1/4-12 x 1.875	5528-161 5528-18 5528-20	C C C	6 5 4	8193-161 8193-18 8193-20	535-161 535-18 535-20	4 4 4	K1191-161 K1191-18 K1191-20	1 1 1	1-1/64 1-5/32 1-9/32
1-3/8-12 x 2.062 1-1/2-12 x 2.250	5528-22 5528-24	C C	4 4	8193-22 8193-24	535-22 535-24	4 4	K1191-22 K1191-24	1 1	1-13/32 1-17/32

\*Sizes included in Master Thread Repair Set - Part No. 5621

## **Applications Guide**

#### **TYPICAL AUTOMOTIVE APPLICATIONS HELI-COIL** SIZE **KIT PART NO. Oil & Transmission Pan Screws** 1/4-20 5521-4 5/16-18 5521-5 **Cylinder Head Bolts** 7/16-14 5521-7 1/2-13 5521-8 9/16-12 5521-9 M10x1.5 5546-10 M11x1.5 5546-11 M11x1.25 5543-11 M12x1.75 5546-12 **Exhaust Manifold Studs** 1/4-20 5521-4 1/4-28 5528-4 5/16-18 5521-5 5/16-24 5528-5 3/8-16 5521-6 3/8-24 5528-6 7/16-14 5521-7 7/16-20 5528-7 1/2-20 5528-8 9/16-18 5528-9 5/8-18 5528-10 3/4-10 5521-12 M5x0.8 5546-5 M6x1 5546-6 M8x1.25 5546-8 M10x1.5 5546-10 M10x1.25 5543-10 Starter Bolts 3/8-16 5521-6 M10x1.5 5546-10 Alternator Bolts 5/16-18 5521-5 3/8-16 5521-6 M10x1.5 5546-10 **Drain Plugs** 1/2-20 5528-8 5/8-18 5528-10 3/4-16 5528-12 7/8-14 5528-14 M12x1.75 5546-12 M14x1.5 5544-14 5544-16 M16x1.5 **Brake Caliper Bolts** M9x1.25 5546-9 M11x1.25 5543-11

SIZE	HELI-COIL KIT PART N
Aux. Transmission C	ases (Fuller)
3/8-16	5521-6
5/16-18	5521-5
Caterpillar Flywheel	Bolts
3/4-16	5528-12
<b>Cummins Head Bolt</b>	
11/16-16	5559-11
Caterpillar Pre-Comb	ustion Chamber
3/4-12	4922-12
7/8-12	4922-141
1-12	4922-161
1 1/8-12	4922-18
1 1/4-12	4922-20
Wheel Studs	
3/4-10	5521-12
3/4-16	5528-12
Motor Mounts/Bell H	lousing
1/2-13	5521-8
5/8-11	5521-10
Oil Pan	
7/16-14	5521-7
Intake Manifolds	FF01 0
3/8-16	5521-6
After Coolers	5504 F
5/16-18	5521-5
Valve Cover	
3/8-16	5521-6
Detroit Diesel Series	
Head Bolt/Main Bear	-
11/16-11	5575-11
Mack-Scania Head E	
M14x1.5	5544-14
American Bosch API	
1/4-20	5401-4-1-SL
SPARK PLUG HOLE T	HREADS
	HELI-COIL
SIZE	<b>KIT PART N</b>
Wire Insert*	
10-1.0mm	5523-10
12-1.25mm	5523-12
14-1.25mm	5523-14
18-1.5mm	5523-18
7/8-18	550
Sav-A-Thread**	F004 44
M14x1.25	5334-14 or 5408-14

#### \*For gasket type spark plug assemblies only. \*\*For Taper seat or gasket type spark plug assemblies.

## **TYPICAL MOTORCYCLE APPLICATIONS HELI-COIL**

SIZE	KIT PART NO.			
Motorcycle Thread Repair Set				
M6x1, M8x1.25 and				
M10x1.25 (2 lengths)	4650			
Cam Screw Cover, Tap	pet			
Guide,Oil Pump Stud a	nd			
Timer Mounting				
1/4-24	5540-4			
Front/Rear Brake Drum	1			
3/8-20	5540-6			
Head Bolt				
7/16-16	5540-7			
Drain Plug - Engine and	d Transmission			
1/2-13	5521-8-2			
Drain Plug - Chain Cas	e			
1/2-20	5528-8-2			
Timing Plug				
5/8-18	5528-10-2			
Generator Case Bolt				
5/16-18	5521-5-2			
Transmission Cover				
5/16-18	5521-5-3			
Japanese Motorcycle	Head Bolt			
M10x1.25	4647-10-1			

### **TYPICAL VOLKSWAGEN APPLICATIONS**

SIZE	HELI-COIL KIT PART NO.
VW Electro Magne	tic
M8x1	5542-8-1
Fuel Cut Off Jet	
M11x1	5542-11-1
VW Rabbit Head Bo	olt Threads
M11x1.25	5546-11-5
VW Fuel Injection I	Head Sensor
M10x1	5542-10-1

### **PIPE THREAD KITS**

SIZE	HELI-COIL KIT PART NO.
1/8-27	5407-2
1/4-18	5407-4
3/8-18	5407-6
1/2-14	5407-8
3/4-14	5407-12
1-11 1/2	5407-16