

# SPRING RETAINERS

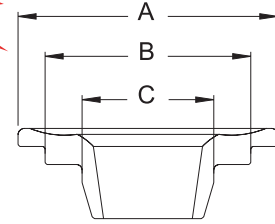


## TENSILEMAX STEEL RETAINERS

Manley Performance revolutionized the titanium retainer aftermarket with its signature "ICD" retainers. Whenever and wherever valve covers were popped off to lash valves or check valvesprings, racers would comment, "Hey, check out the retainers with the holes in them!" These "ICD" retainers, featuring Ti-17 alloy and a special impingement process, were originally developed for the Nascar Cup market to satisfy the need for lightweight yet durable retainers.

As valve spring technology progressed, the springs became harder due to the use of better materials and processing. Engine speeds continued to elevate to never before seen levels. Titanium retainer wear became inevitable in certain applications. How did we respond? We created something better... the Manley TENSILEMAX STEEL RETAINERS!

- ✓ Manufactured from our incredibly tough TensileMax alloy
- ✓ Designed to be as light as standard titanium retainers and very close in weight to lightweight titanium versions (within 2-4 grams)
- ✓ Specially heat treated to provide a hardness of Rc 52-54 and prevent retainer wear
- ✓ Exclusive process yields a part that provides the optimum balance between ultimate strength, fatigue strength, hardness and ductility
- ✓ Unique impingement process developed specifically for our TensileMax alloy and hardness range to improve fatigue strength and promote better oiling between the spring and retainer



Standard TensileMax



Convulated TensileMax



Double Convulated TensileMax

These are serious retainers for serious engine builders who DEMAND THE VERY BEST...

Part No.	Quantity	Spring Type	Spring	Spring O.D.	Keeper Degree	Dimensions			Profile
						A	B	C	
23707 TM-16	16 pcs.	Double	Manley 221432	1.530"	Super 7°	1.420"	1.125"	.740"	Convulated
23670 TM-16	16 pcs.	Double	Manley 22440, 22441	1.550"	Super 7°	1.420"	1.105"	.710"	Convulated
23672 TM-16	16 pcs.	Double	Manley 221441P, 22429, 22430	1.570"	Super 7°	1.440"	1.125"	.730"	Standard
23674 TM-16	16 pcs.	Double	Comp. 927	1.550"	Super 7°	1.440"	1.140"	.730"	Standard
23705 TM-16	16 pcs.	Double	Manley 221440P	1.570"	Super 7°	1.440"	1.140"	.745"	Standard
23682 TM-16	16 pcs.	Double	Manley 221442	1.560"	Super 7°	1.440"	1.120"	.805"	Standard
23685 TM-16	16 pcs.	Double	Manley 221445P	1.620"	Super 7°	1.460"	1.175"	.840"	Standard
23685 DCTM-16	16 pcs.	Double	Manley 221445P	1.620"	Super 7°	1.460"	1.175"	.840"	Double Convulated

VALVES  
CYLINDER HEAD COMPONENTS  
PUSHRODS, DRIVE & OIL SYSTEMS  
PISTONS, RINGS, & PINS  
CONNECTING RODS  
ENGINE BUILDING AIDS