



**TRANS ATLANTIC
DIESELS, INC.**

Trans Atlantic Diesels, Inc.
P.O. Box 70
White Marsh, VA 23183
Tel: (804) 642-9296 Email:
tadinc@earthlink.net

PERKINS 4.236 SERPENTINE PULLEY KIT INSTALLATION INSTRUCTIONS

1 - The following instructions are for installation guidance only.

2 - All normal safety precautions should be followed.

IF YOU HAVE ANY DOUBTS OR QUESTIONS PLEASE CONTACT US

Toll Free: 1-804-642-9296

Email: tadinc@earthlink.net

What's Included:





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Crankshaft Pulley - p/n 336236C

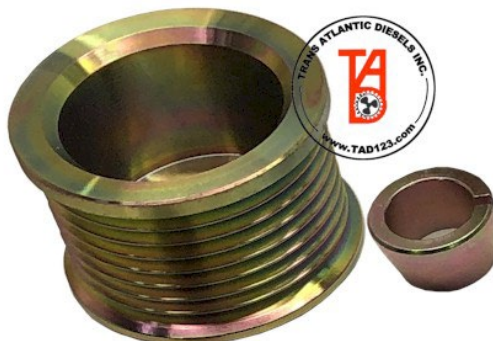


Fresh Water Circ Pump Pulley - p/n 336236W



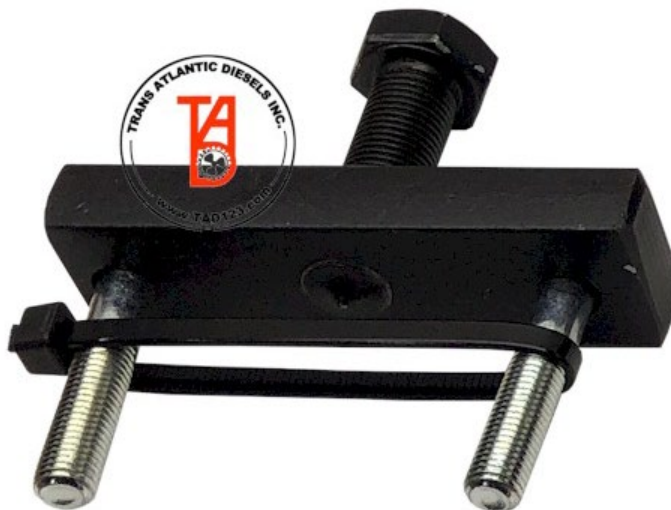
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8-Groove Serpentine Pulley for Alternator. (17mm bore)
p/n 24-12704 | Bush p/n 1620.

We intentionally supply an 8-groove alternator pulley for the 6-groove system to allow for alignment options. Be assured, the belt will not jump track once properly aligned.



Puller to Remove Water Pump Pulley



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6 Groove Serpentine Belt
p/n 060514



Crank Pulley Mounting Bolts
4 x 7/16" x 1 1/4" fine



Adjusting Arm to Balmar 621 Tensioning Bolt
(serrated, flanged with washer, lock washer and nut)
M8 x 1.25 x 30



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Alternator Bracket Spacer - 3/4" Plate
Allen Bolts to Mount Alternator & Spacer Plate to Block
2 x 3/8 x 3/4" fine



Adjusting Arm Pivot Bolt, Spacer, Washer & Lock Washer
(3/8"-24 x 1 3/4")



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Pack of Anti-Seize for threaded hardware

Alternator Bracket Spacer - First, disconnect the battery supply to the engine. You will now remove the alternator from its existing mounting bracket. Next, remove the mounting bracket itself, you will be fitting behind it an Alt. Bracket spacer, Item 8. This is required to position the alternator further forward for the new belt system. Remove the 2 mounting studs, if you don't have a stud remover you can use 2 x 3/8 fine nuts locked together or Vice Grips as you will be replacing these studs with countersunk Alan head cap screws supplied.

Having removed the old alternator bracket and studs, you will now fit the new spacer adaptor. **Caution** - The Alan head cap screws with lock washers used to retain the spacer are a specific length and must not be substituted. They screw into blind holes, which align with the timing gears. Using a longer bolt will interfere and damage the timing gears causing serious damage.

Place the two 3/8" x 3/4" long Alan head cap screws with lock washers through the countersunk holes in the Alt Bracket spacer. The spacer should be orientated with the two vacant holes facing forward of the engine. Tighten the 2 Alan bolts using a 5/16" Alan wrench. You are now ready to fit the original bracket to the Alt. bracket spacer you have just fitted. Use the 2 x 3/8" x 3/4" long hex head bolts to secure the original bracket to the adaptor.

You will now remove the Belt adjusting arm to facilitate a spacer using a 9/16" socket. Fit the 3/8" x 1 1/4" long bolt through the adj. arm, add the Alt Adj. arm spacer and refit the arm using a 9/16" socket, this can be loosely tightened until the alternator is in place, at which time the arm can be positioned to connect to the alternator.



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Alternator Pulley – **WE INTENTIONALLY SUPPLY AN 8 GROOVE PULLEY FOR THE 6 GROOVE SYSTEM TO ALLOW FOR ALIGNMENT OPTIONS, BE ASSURED THE BELT WILL NOT JUMP TRACK ONCE PROPERLEY ALIGNED.** Next, if you are using your existing alternator with the V groove pulley, remove this. An impact wrench works well. If not available some alternators have an Alan head in the shaft for holding it, most pulleys will come off without force once the securing nut is removed. Fit the New Serpentine Alternator pulley to the alternator, reversing the sequence for the removal.

Water Pump Pulley - Now remove the Fresh Water pump pulley, remove the securing nut with a 15/16" socket. Using the puller supplied in the kit, using a ½" socket, screw the puller bolts approx. ½" into the pulley then using a 9/16" socket, turn the center bolt in to the water pump shaft to remove the pulley.

Caution: Do not try to pry the pulley off from behind as it is constructed of cast iron and will easily break.

There is a key in the water pump pulley shaft, be sure this stays in place. Now fit the new pulley being sure the key way lines up correctly. You will use the securing nut to pull on the new serpentine pulley on the water pump shaft. (An impact wrench works well for this)

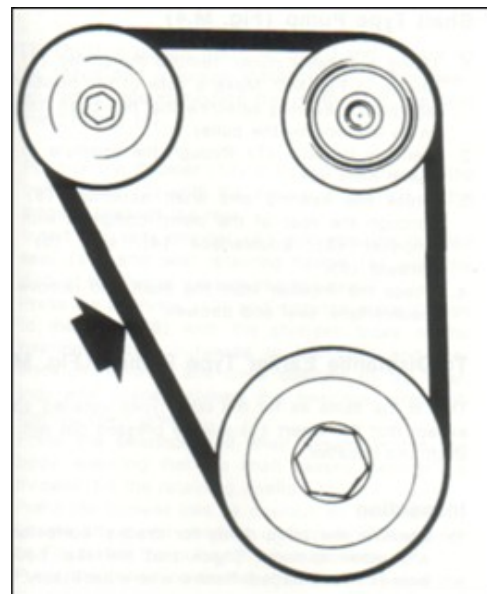
Next, fit the supplied Crankshaft pulley on to the existing crankshaft pulley. Be sure that the mounting surface is clean, if not the pulley will not register correctly and will run out of true. Using a 5/8" socket fit the 4 x 7/16" x 1 ¼" long bolts.

Serpentine Belt: Fit the new serpentine belt. Check for alignment. There are slots in the alternator bracket that will give you some adjustment if required. Once the belt is fitted and good alignment is achieved, Tighten the belt adjuster arm. Both bolts, the one on the alternator and the one at the mounting point of the arm where the spacer was fitted.

Belt Tension should be, so that without undue pressure, the belt can be depressed 3/8 of an inch at the center of the longest span as shown in the image below.

NOTE: The new belt will require re-tightening after a loaded run period of approx. 2 hours. Continue to check tension until the new belt no longer stretches. Following this procedure, periodic checks should be made checking condition and tension.

Carry a spare!





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Check the photos below to identify your current system and inform us when ordering.



Figure 1 - 4.236 European Low Line Tank
Shown in figure 1 is the 4.236 European Low Line Tank.
This tank **WILL ACCEPT** our Serpentine Pulley Kit.



Figure 2 - 4.236 Bowman Manifold Assembly
Shown in Figure 2 is the Bowman Manifold Assembly. This configuration **WILL ACCEPT** our
Serpentine Pulley Kit.



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Figure 3 - 4.236 North American Manifold

Shown in Figure 3 is the 4.236 North American Configuration Manifold. This configuration **WILL ACCEPT** our Serpentine Pulley Kit.



Figure 4 4.236 European Bowman Front Mount Tank & Heat Exchanger Configuration

Shown in Figure 4 is the 4.236 European Bowman Front Mount tank and heat exchanger configuration. This configuration **WILL ACCEPT** our Serpentine Pulley Kit without modification to the tank. Contact us for details.



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