



AUDI 01J CVT FORWARD CLUTCH DRUM AND PULLEY ASSEMBLY/DISASSEMBLY UPDATE

Forward clutch updated assembly setup:

Forward and reverse friction clutch clearance is critical. Originally these units come with a six friction stack up. There was an update that increased the stack up to 7 friction trapezoid design plates. The 7 friction update is for 4 cylinder diesel or larger engines, the previous 6 friction assembly still applies to 4 cylinder 2.0 or smaller gas engines with trapezoid plates. The part numbers for the tools to set up the forward clutch are (seen in figure 1):

Assembly toolT10219/1
4 Calipers..... T40101
2 Rulers..... T40100
Digital depth gauge.....VAS 6087

Align all the forward fiber clutch plate teeth evenly, with the forward clutch wave plate above the selective lower apply plate for measuring purposes only, load into the forward drum. Once the forward clutch drum is loaded, a suitable tool or part number T10219/1 should be placed under the drum during end play measurements see figure 2.

Place all 4 Calipers spaced evenly, onto the Selective upper apply plate seen in figure 3. Place two of the Rulers one each onto two of the four Calipers. With the Digital depth gauge placed flat onto the two rulers, measure to the top or the Selective Upper Apply plate, measurements should be taken in four locations. Calculate the average of all four measurements, (total all 4 values and divide by 4) and this will be called measurement "A".

Next with the two rulers still in place measure to the top of the Thrust plate contact surface shown in figure 4. Measurements should be taken on both sides of the shaft. Move the two rulers 90 degrees and repeat measurements. Calculate the average of all four measurements, and this will be called measurement "B" (see figure 4). Subtract measurement "A" from "B" this will be calculation "K".

This same procedure must be performed with the forward clutch pressure plate using only two calipers with one ruler taking measurements in 3 places (figure 5). Subtract measurement "A" from "B" this will be calculation "D".

Total Air Gap (end play) measurement will be the difference between Calculated measurement "K" & "D". Using the chart below, determine the proper Selective disc (See Figure 2) to achieve the correct Air Gap measurement.

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Air Gap specified value: 1.4 ± 0.2 mm 6 Disc 1.8 ± 0.2 mm 7 Disc				
Available Upper & Lower adjustment discs (thickness in mm)				
1.90	2.15	2.65	2.90	3.15

The last step is to reassemble the forward clutch assembly with the Waved disc above the Selective Upper Apply disc seen in figure 6.

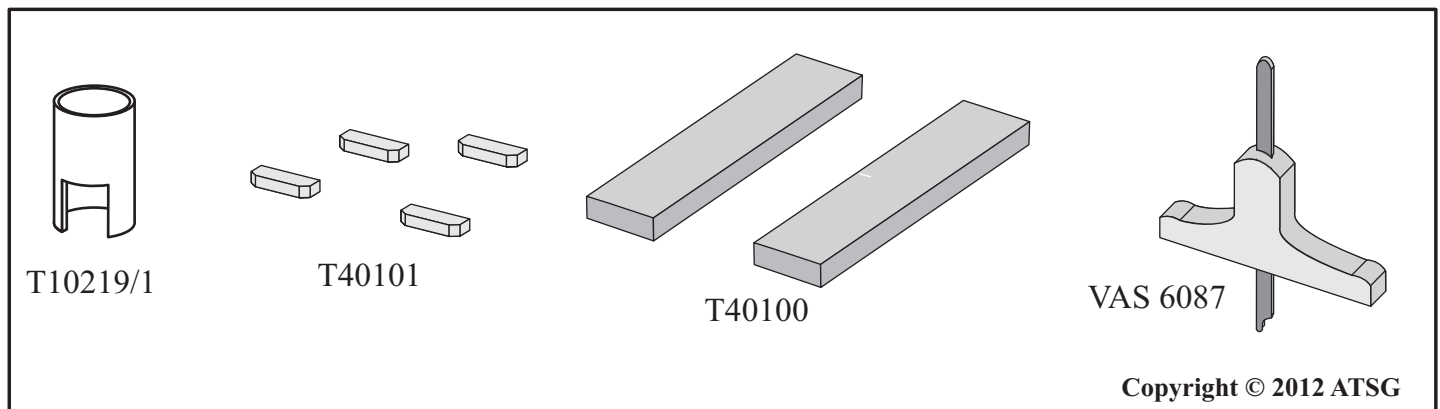


Figure 1

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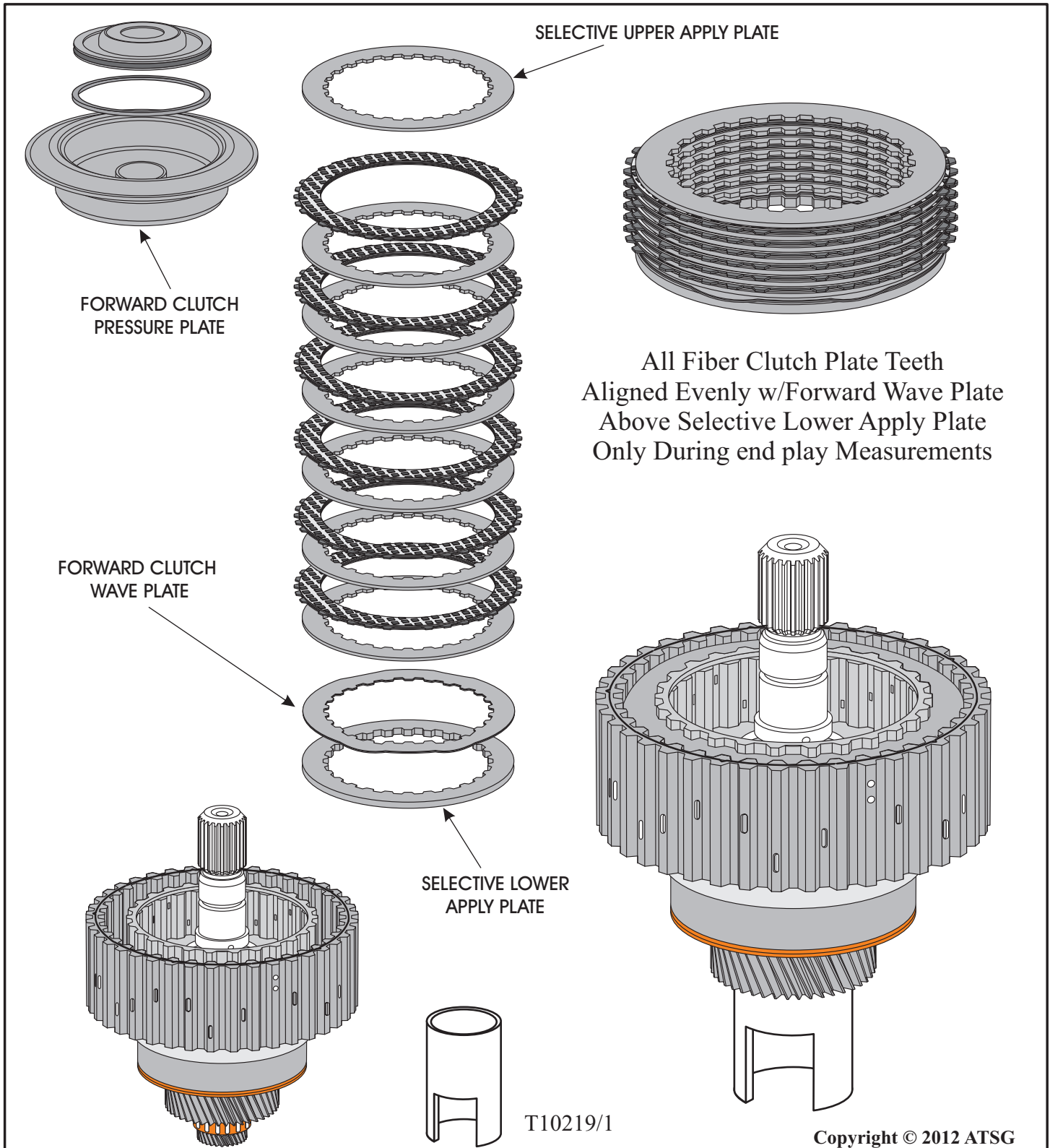
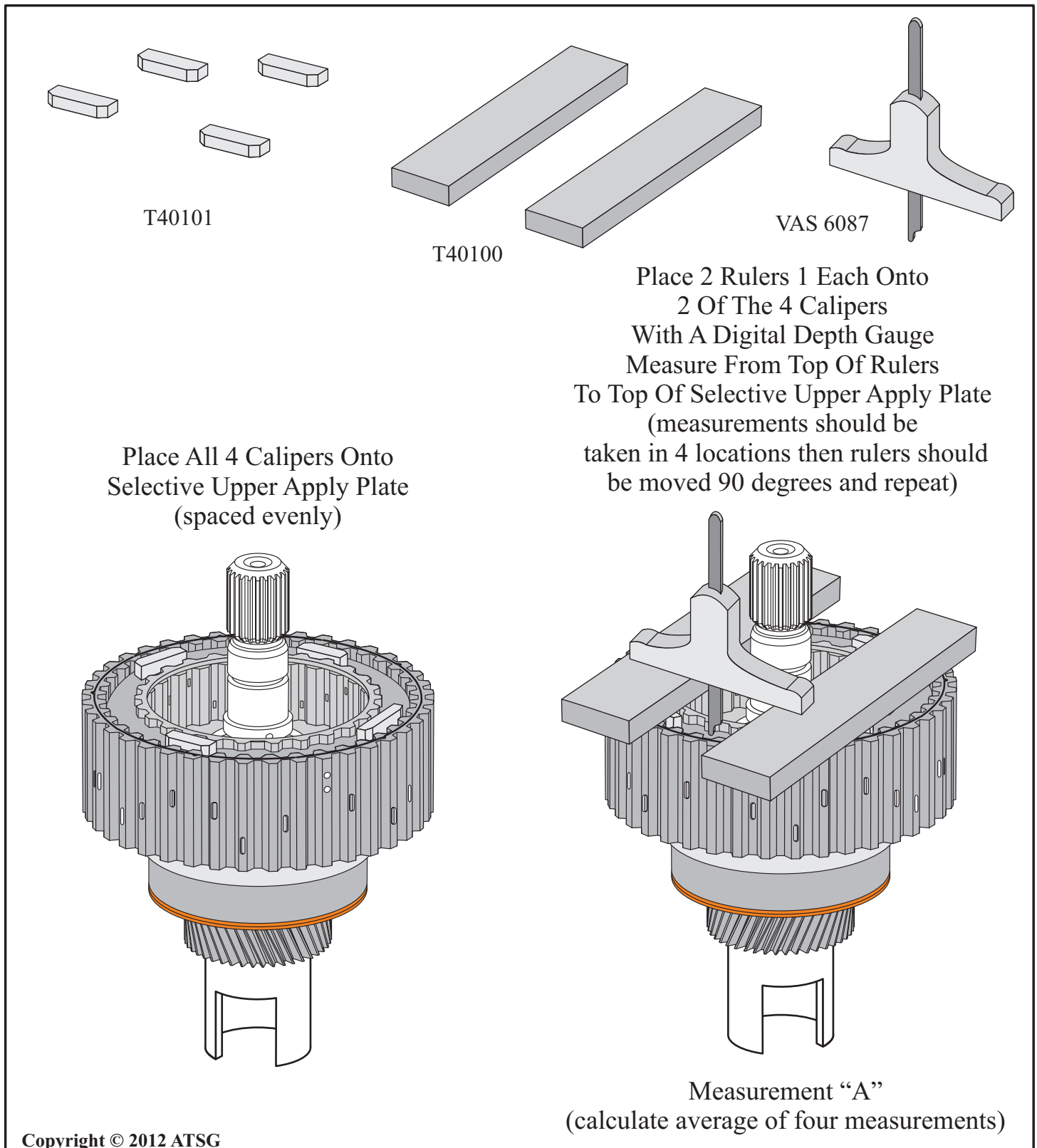


Figure 2

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Figure 3

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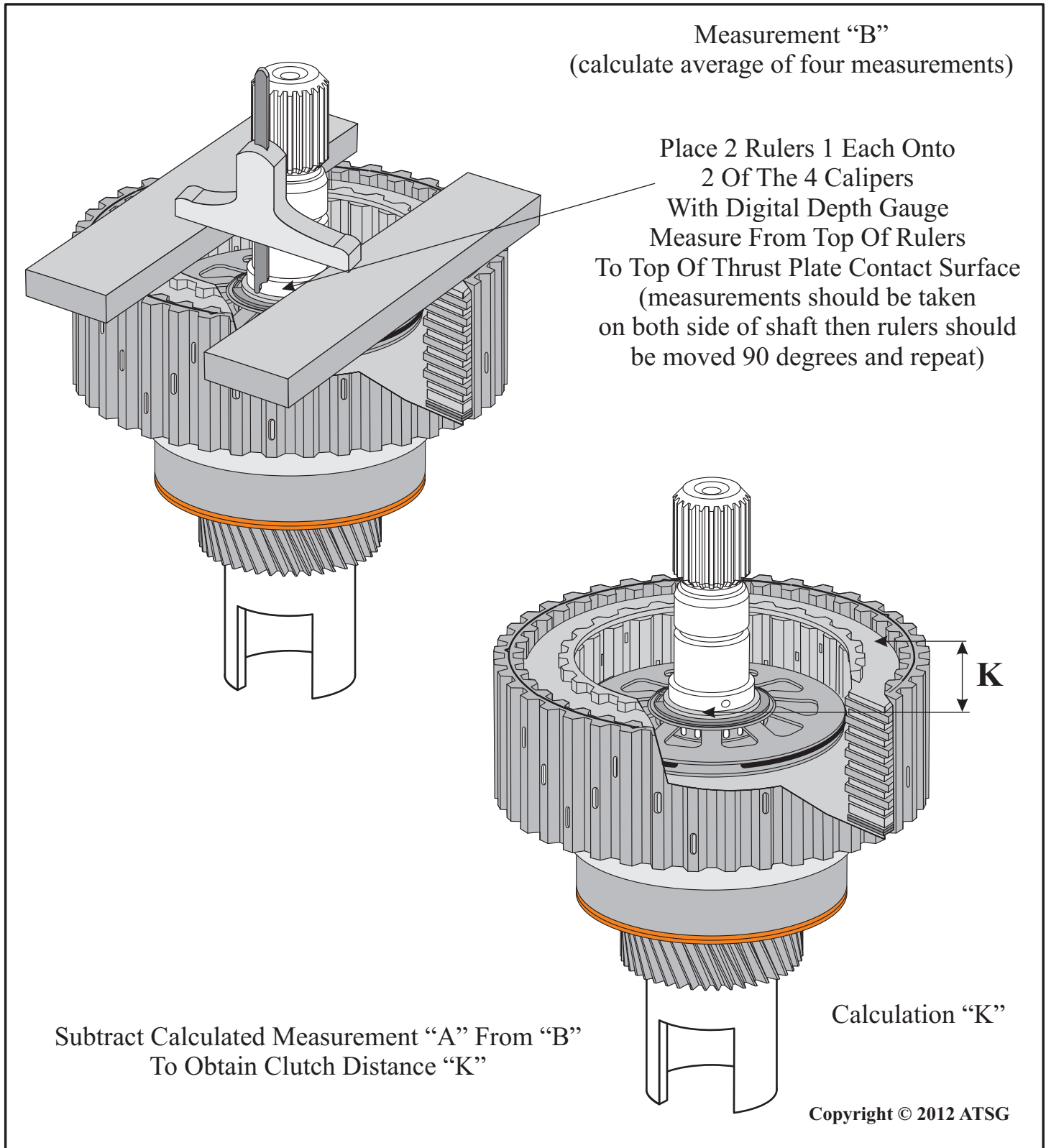


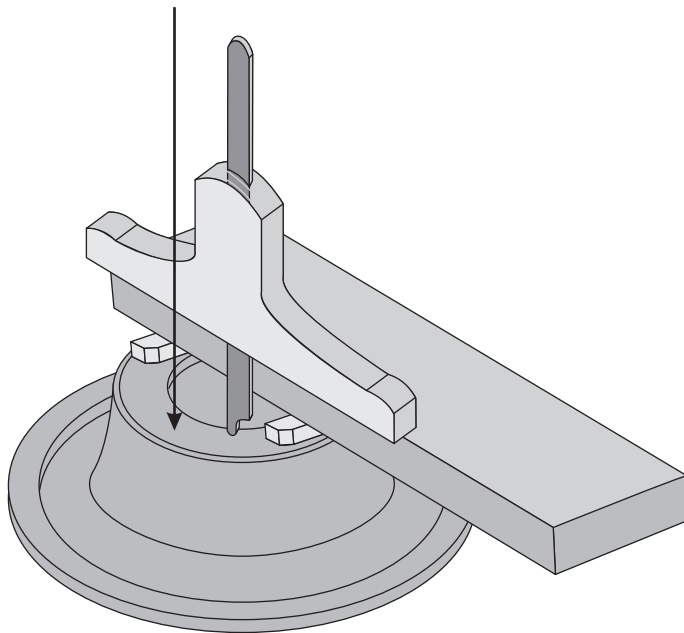
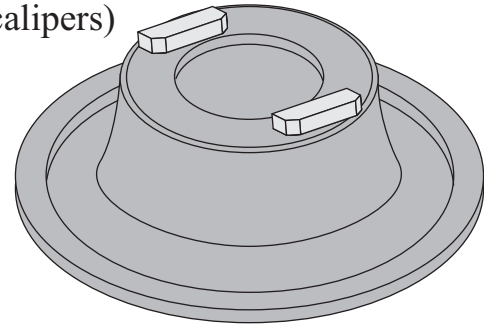
Figure 4

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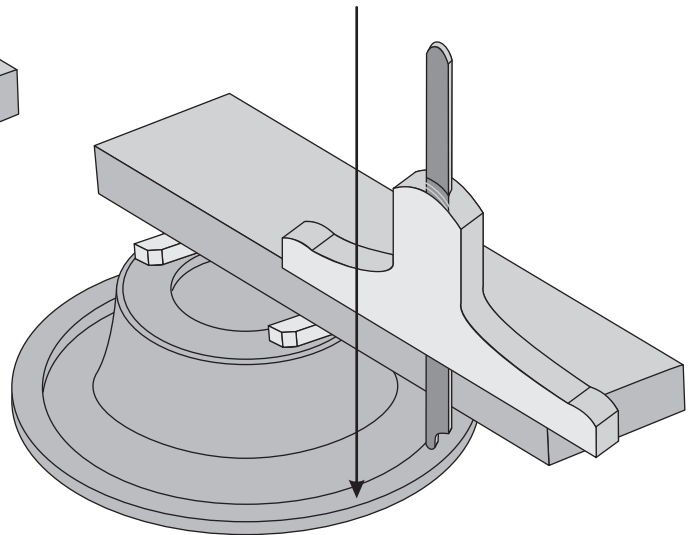
Place 1 Ruler Onto 2 Calipers
With Digital Depth Gauge
Measure From Top Of The Ruler
To Top Of The Forward Pressure
Plate Upper Running Surface
(move ruler 120 degrees and repeat
for a total of 3 measurements)

(use 2 calipers)



Measurement "A"
(calculate average of three measurements)

Place 1 Ruler Onto 2 Calipers
With Digital Depth Gauge
Measure From Top Of The Ruler
To Top Of The Forward Pressure
Plate Lower Running Surface
(move ruler 120 degrees and repeat
for a total of 3 measurements)



Measurement "B"
(calculate average of three measurements)

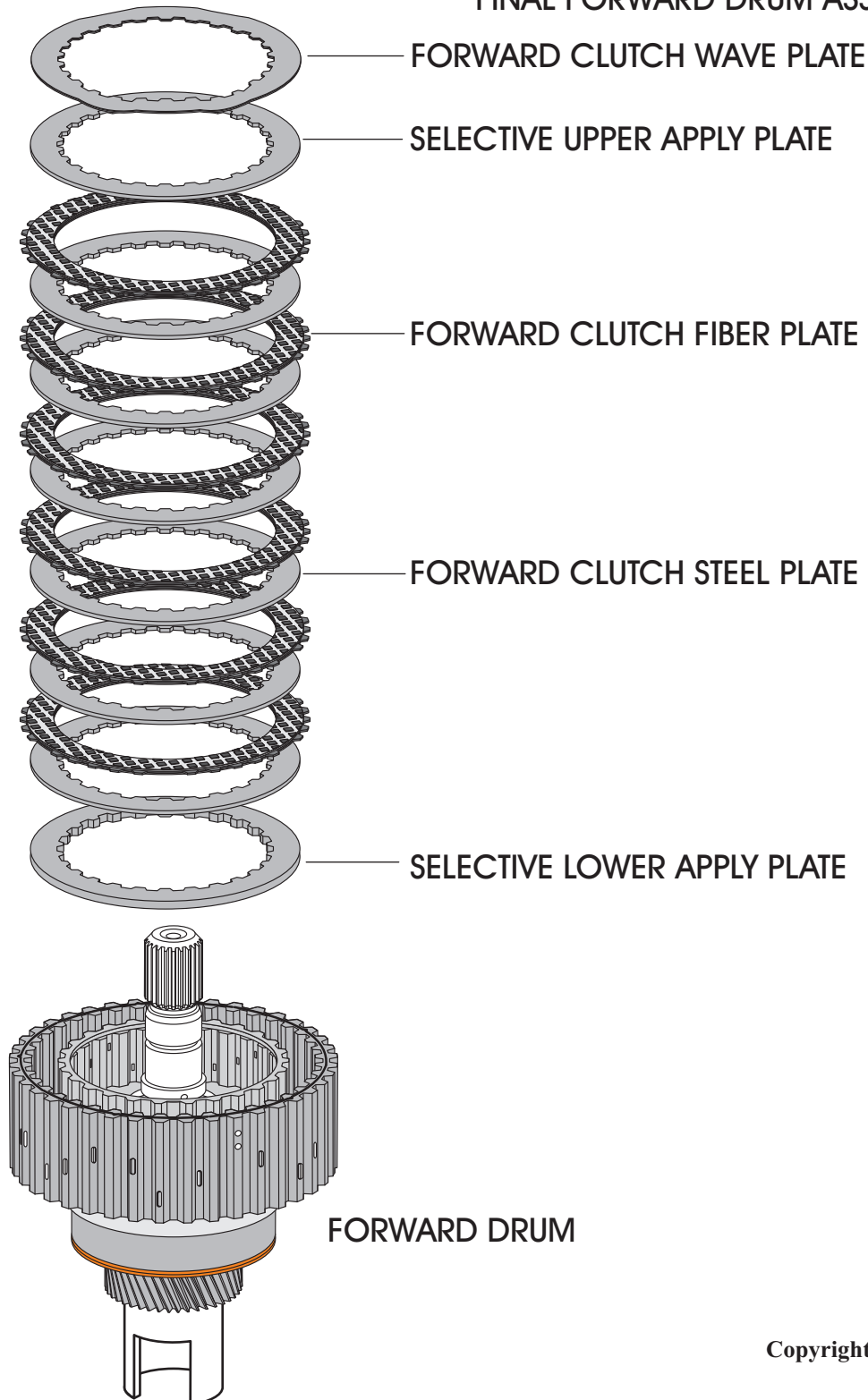
Subtract Calculated Measurement "A" From "B"
To Obtain Clutch Distance "D"

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Figure 5

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FINAL FORWARD DRUM ASSEMBLY



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Figure 6

Updated disassembly procedure:

1. Measure the height of the chain from pin end to pin end as seen in figure 7 represented by dimension "A." There are 2 design thicknesses of chains, one is 34 mm in thickness while another is 38 mm in thickness.
2. For the 34 mm chain, attach adapter tool number T40130/2 onto the output pulley set II as seen in figure 8. The O-rings inside the adapter tool and the sealing surfaces on the pulley set should be cleaned and lubricated with ATF.
3. For the 38 mm chain, attach adapter tool number T40130/2 onto the output pulley set II with spacers T40130/5 and T40130/6 as seen in figure 9. The O-rings inside the adapter tool and the sealing surfaces on the pulley set should be cleaned and lubricated with ATF.
4. Align and center the support bracket T40130/1 on the adapter as seen in figure 8. Once aligned, bolt the bracket down to the case (1).
5. Screw down the center bolt (2) on the bracket so that the center adapter is pressed up against pulley set II.
6. Connect an air hose to the adapter housing and apply approximately 3 bar of compressed air into the adapter so that the output pulley set opens and the chain becomes relaxed.
7. Slide the two arresters (3) into place where they secure the top side of the output pulley set II as seen in figure 8.
8. Lock the arresters into position using the knurled screws being careful not to trap the chain.
9. Turn the chain until the link with the production date stamp becomes visible as seen in figure 10.
10. Count over and identify the 4th pin to the right of the link with the production date stamping. Place a rag cloth under the chain and carefully knock off the 2 little spot welds on the end of the pin facing you. The pin is a two piece pin with a spot weld on the top of the left pin and one on the bottom of the right pin as it faces you (see figure 10).

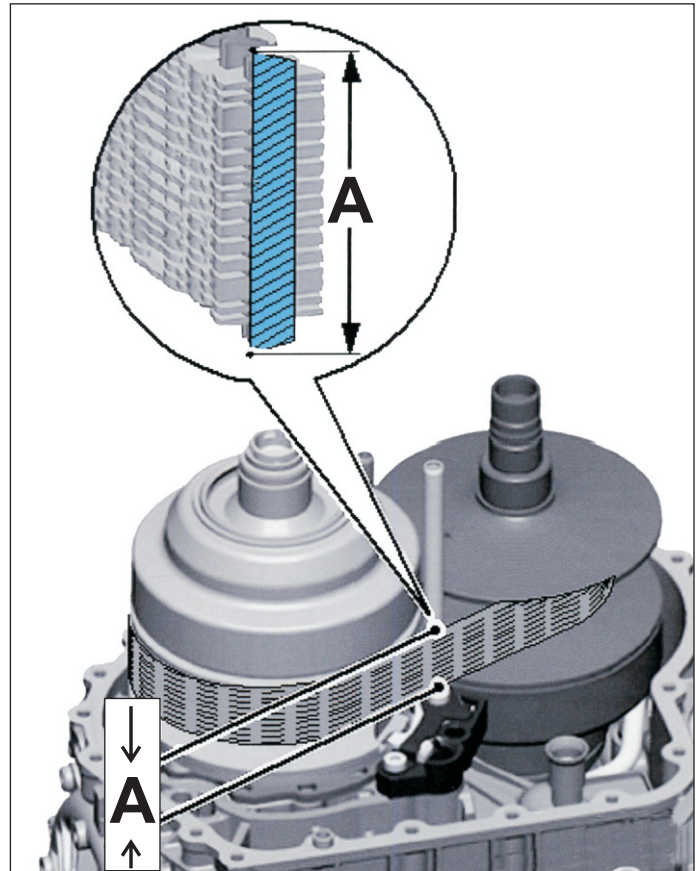


Figure 7

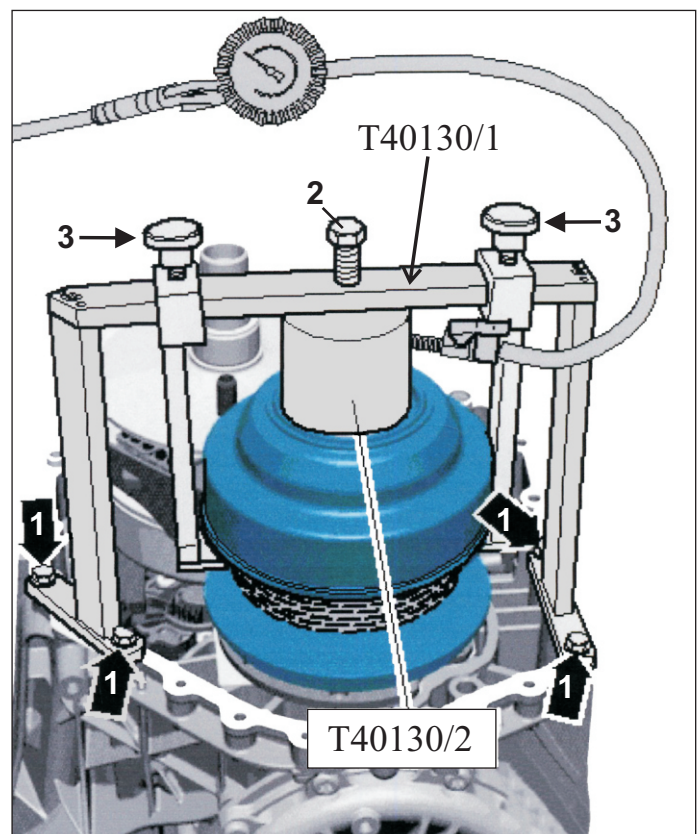


Figure 8

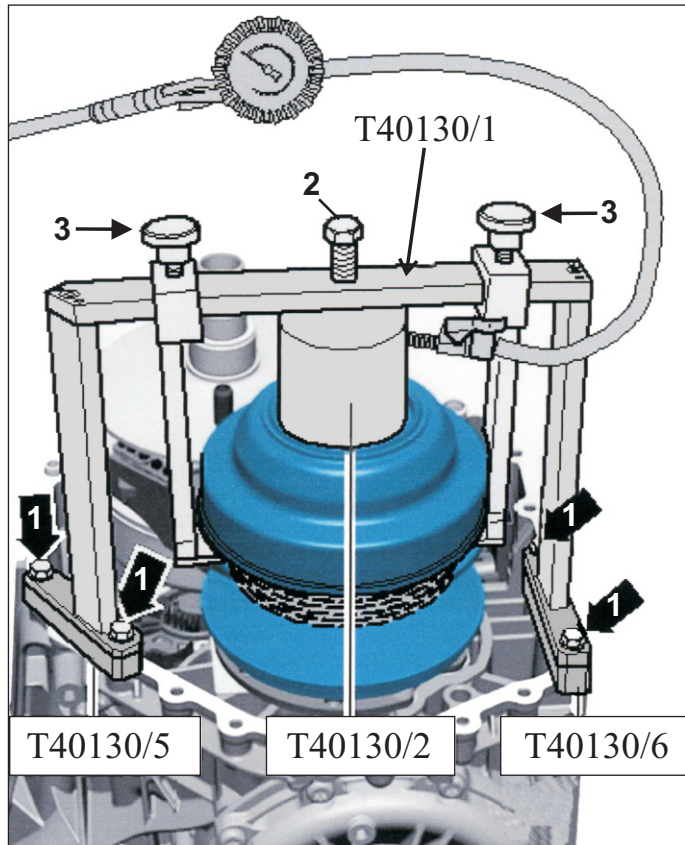


Figure 9

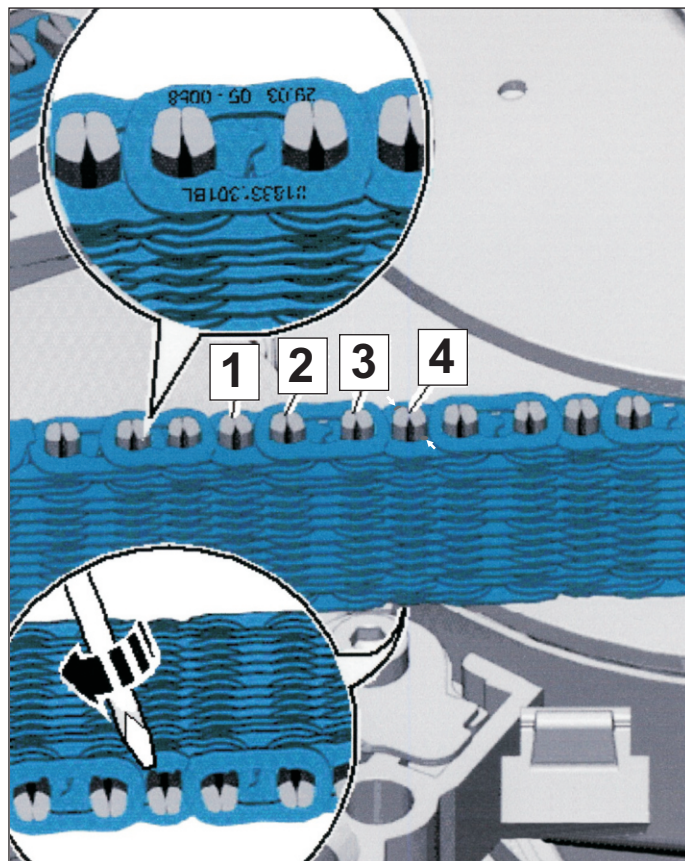


Figure 10

pins and open the chain.

12. Mark the position of the guard rail (1) in relationship to the chain. Then, unclip the guide rail from the oil pipe (2) and detach both the rail and chain from the pulleys as seen in figure 11. *Caution is needed to ensure that the chain does not get kinked*

13. Remove the input pulley assembly I (Figure 12).

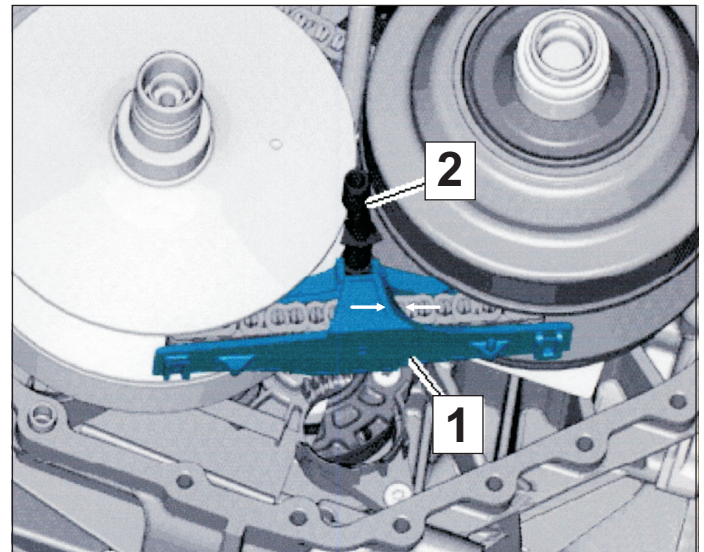


Figure 11

Note: Although not shown here, the tool assembly remains in place on the output pulley assembly II while the input pulley assembly I is removed and serviced.

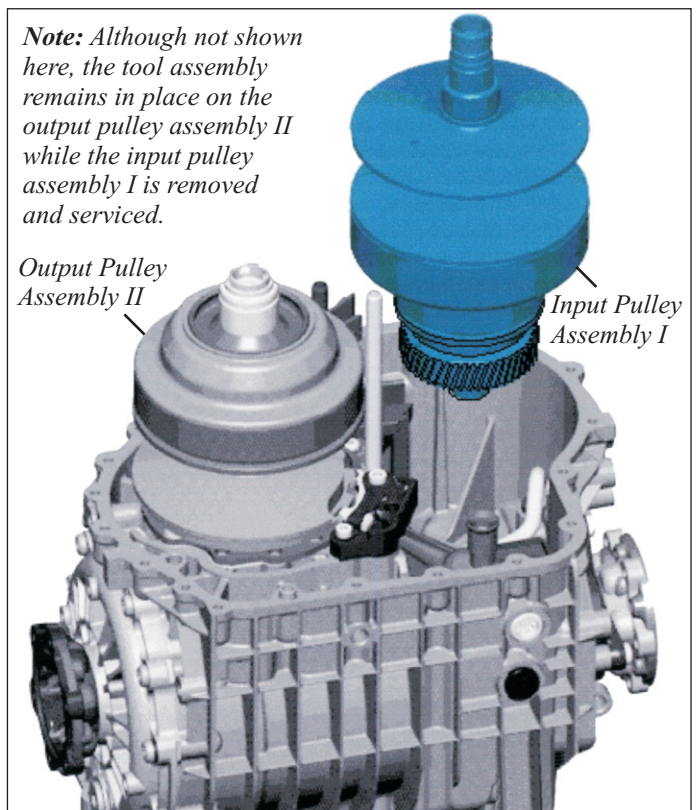


Figure 12

Re-assembly procedure:

1. In reverse order, carefully install the Drive Pulley assembly into the main case (figure 12).
2. Clip the guide rail (1) onto the oil pipe (2) with chain inserted (refer to marking made upon removal to facilitate installation (figure 11).
3. Wrap the chain around the pulleys until the two open ends meet and join them together as seen in figure 13.
4. Insert the two asymmetrical pin halves (1 & 2) into the chain with the end that had the weld spots removed going in first and with the intact weld spots at the top (figure 14).
5. Loosen the knurled screws and slide the arresters out of position (3) as seen in figure 15.
6. Disconnect the air hose from the adapter.
7. Using a small screwdriver, press in on the valve stem and release the air from the adapter.

8. The output pullet set II should close and the chain should tighten.

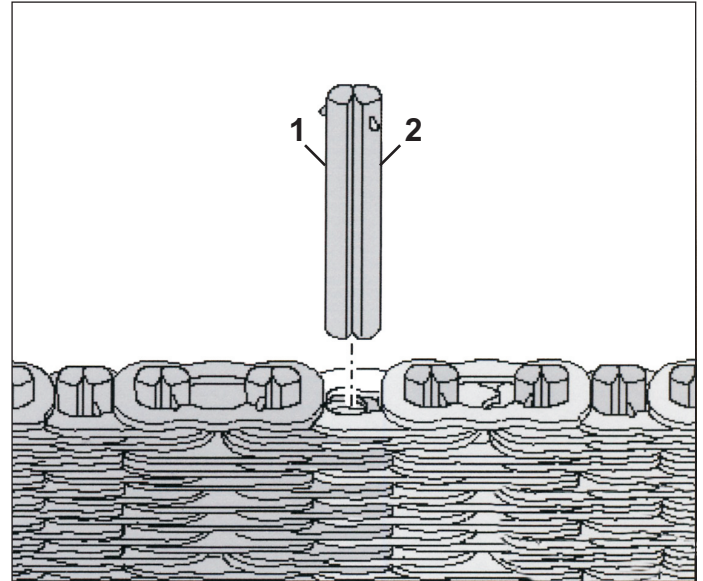


Figure 14

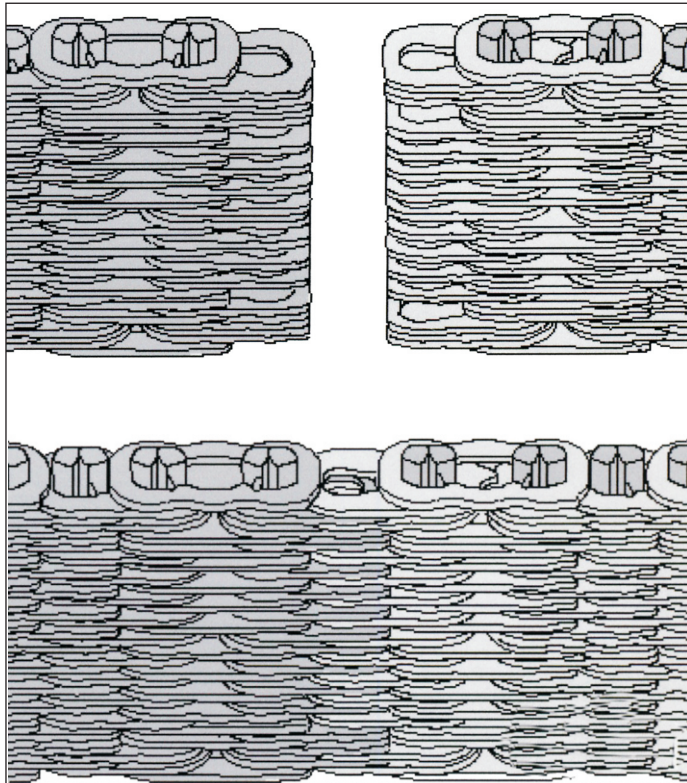


Figure 13

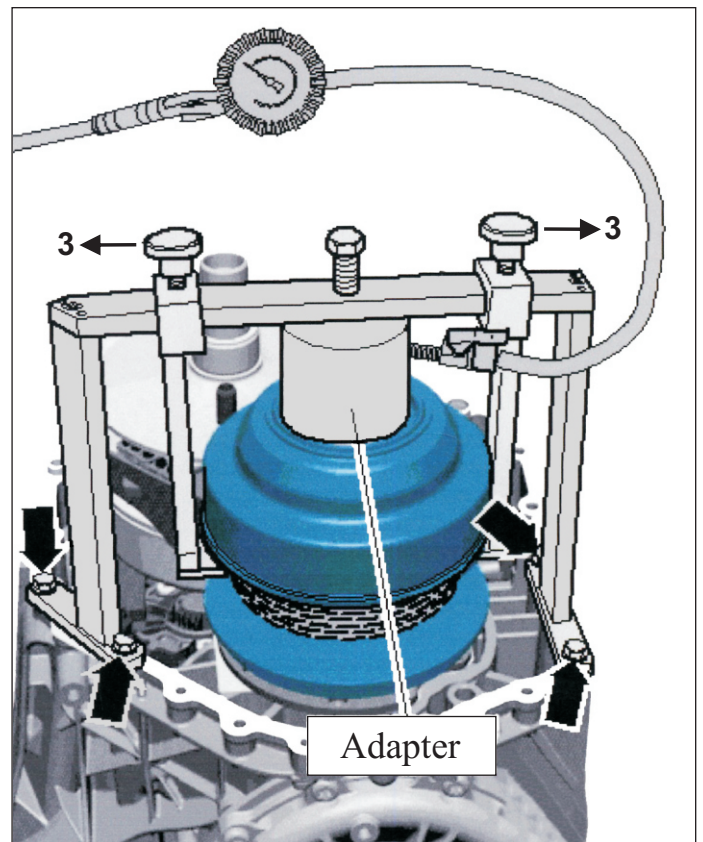


Figure 15