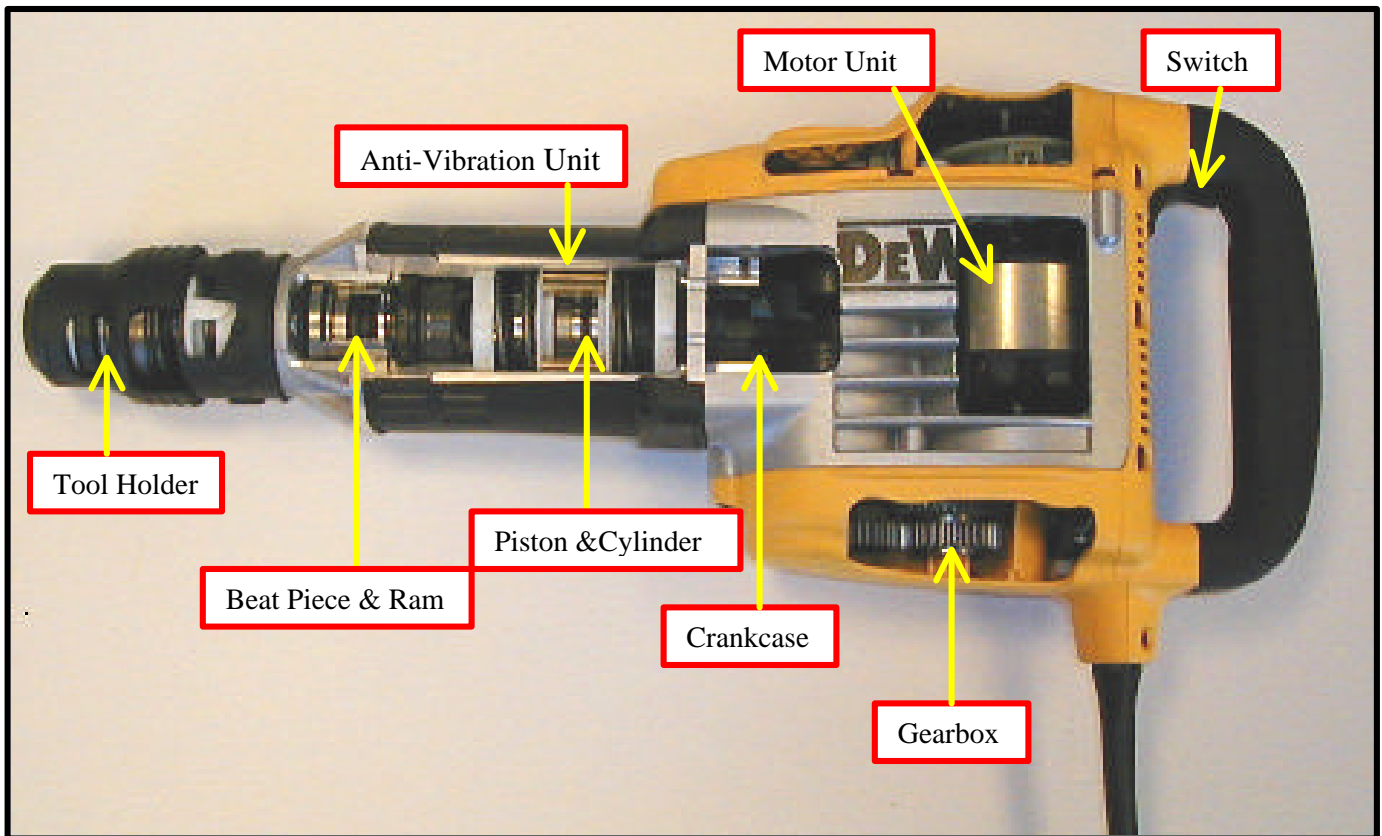


Full Strip down and Re-assembly procedure for the 10KG Demolition Hammer D25900K.

This procedure is in Four main sections.

1. General Information / Tooling
2. Total Strip Down.
3. Re-assembly.
4. Routine Servicing.



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Page 5	Hand Tools Required
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Dismantle

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Page 11-15	Tool Holder Assembly.
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Page 30-33	Motor unit.
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Page 40-41	Cylinder and Ram.
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Page 45	SDS Spindle.
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Page 48-50	Turning Sleeve.
Page 51-52	Tool Bit Locking assembly.
Page 53-57	Sliding Sleeve / Snap Ring.
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Routine Servicing

Page 62	Servicing.
Page 63	Fault Finding and Test Data.

SECTION ONE.

General Information.

- ❑ **ONLY THE CORRECT GREASE MUST BE USED**
- ❑ When repairing this product it is very important to keep the working area clean and free from any dust or debris.
If any contamination is allowed within the Tool holder, Anti-vibration unit or Gear Box this will cause premature failure of the Product.
- ❑ If significant wear has occurred within in the Tool Holder components then it is recommended to replace the complete unit (111).
- ❑ If ANY of the O Rings are disturbed when dismantling, they must be replaced.
- ❑ If only the Motor/Switch needs attention, it is not necessary to remove the Anti-Vibration & Tool Holder units, although it can make the operation difficult if left attached, because of the size and weight of the product.

If they are removed then the following should be noted

- ❑ Only undo the 4 Screws (65) from the Anti-Vibration Unit and remove the complete front assembly including the Tool Holder Unit from the Motor Housing.
- ❑ The Piston, Crank Case, Cylinder & Anti-Vibration Unit will be exposed and should be kept covered to prevent any ingress of dust or debris.
- ❑ The O Ring's (49) Piston and (79) Housing must be replaced on re-assembly.

Serial Number / Date Code.

A serial number and the Date code will be printed on the Main Metal Housing on the right hand side next to the Anti-Vibration Unit. .

The Serial Number must be quoted on all repair documentation.

After repair, mark the housing next to the serial number with the letter 'R'.



European Service Support Group

Technical Information & Parts Supply

Service Kits.

Four Service kits will be available that contain all the O Rings, Grease, Brushes, Snap Rings, Seals that are required when Servicing.

The first service kit is used when the unit comes in for its first brush change after 250 hours.

The Major Kit is used when the unit requires a complete strip down and rebuild.

First Service Kit 115 Volt.

Item No	Part number	Qty.
8	487340-01	2
49	487213-00	1
73	487297-00	1
77	487296-00	1
79	323711-44	1
87	487238-00	1
88	487205-00	1
89	487241-00	1
104	323711-40	1
108	487243-00	1
109	487299-00	1
800	578970-02	1

First Service Kit 240Volt.

Item No	Part Number	Qty
8	487340-00	2
49	487213-00	1
73	487297-00	1
77	487296-00	1
79	323711-44	1
87	487238-00	1
88	487205-00	1
89	487241-00	1
104	323711-40	1
108	487243-00	1
109	487299-00	1
800	578970-02	1

Major Service Kit 115 Volt.

Item No	Part number	Qty.
8	487340-01	2
32	487224-00	1
36	487209-00	1
49	487213-00	1
52	323711-42	1
58	324007-11	4
69	487288-00	1
71	487298-00	1
73	487297-00	1
74	323711-41	2
77	487296-00	1
79	323711-44	1
87	487238-00	1
88	487205-00	1
89	487241-00	1
90	487244-00	1
104	323711-40	1
108	487243-00	1
109	487299-00	1
800	578970-02	1

Major Service Kit 230 Volt.

Item No	Part Number	Qty
8	487340-01	2
32	487224-00	1
36	487209-00	1
49	487213-00	1
52	323711-42	1
58	324007-11	4
69	487288-00	1
71	487298-00	1
73	487297-00	1
74	323711-41	2
77	487296-00	1
79	323711-44	1
87	487238-00	1
88	487205-00	1
89	487241-00	1
90	487244-00	1
104	323711-40	1
108	487243-00	1
109	487299-00	1
800	578970-02	1



European Service Support Group

Technical Information & Parts Supply

Hand Tools required.

Soft faced mallet.

T Handed Torx Screw Drivers. TX10. TX15. TX20.

Long Nose pliers.

Torque wrench. ½ in Drive.

Torque Screwdriver.

Allen Keys. Size various

Circlip Pliers. Internal, External.

Press.

Vice.

Two legged puller.

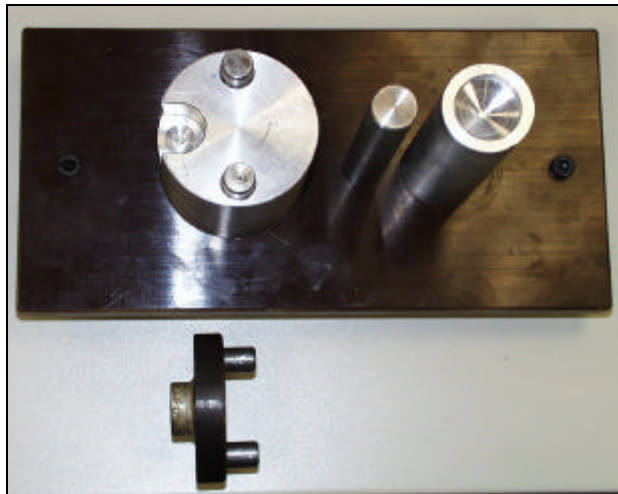
Service tooling

559617-99 Crank Gear Removal & Assembly Tool.

Used to fit Double Gear (42) in conjunction with a Press.

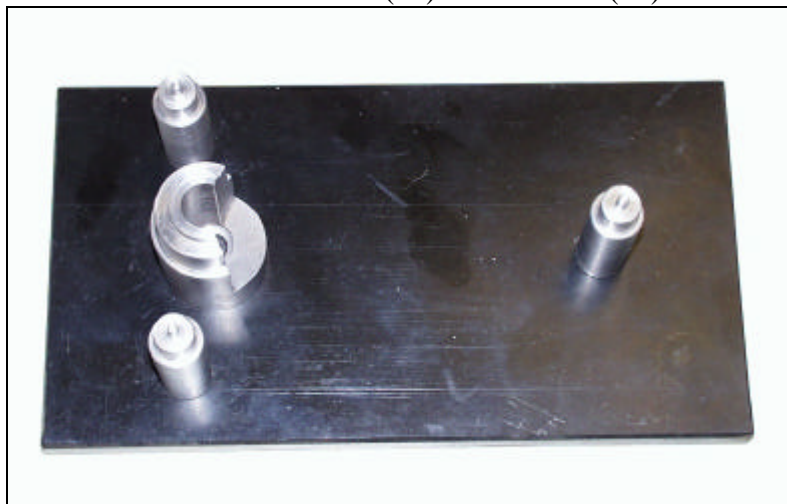
Will remove and replace the crank gear (43) in conjunction with a Torque Wrench

Used to fit Armature Seal (36) & Bearing (35) in conjunction with Service Tool **559621-99**.

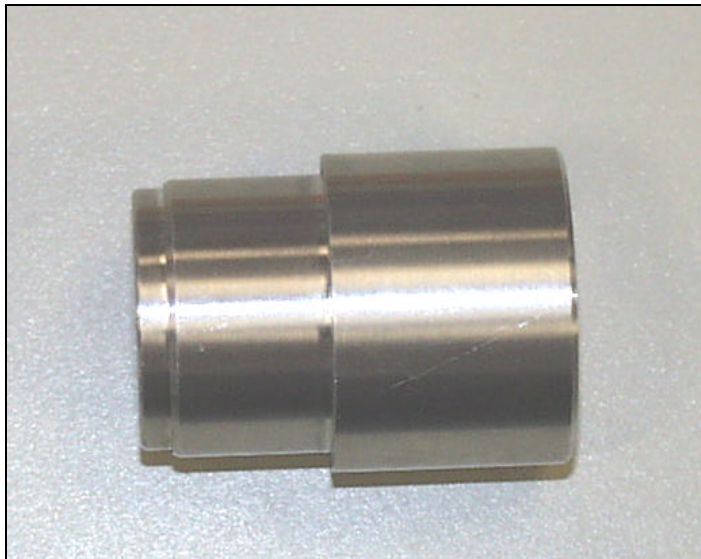


559618-99 Motor assembly Tool.

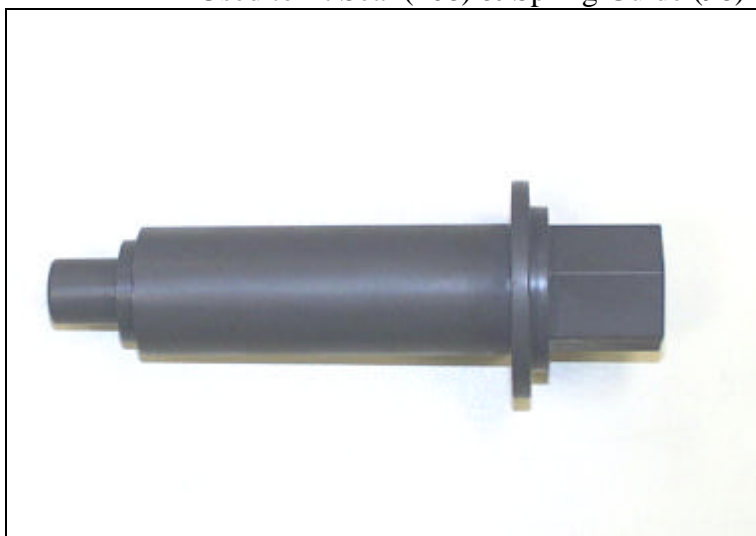
Used to fit Motor Pot (2) & Armature (1)



559621-99 Armature Seal & Bearing assembly Tool.
Used to fit Seal (36) & Bearing (35)



559620-99 Spindle Seal & Tool Holder assembly Tool.
Used to fit Seal (108) & Spring Guide (98)



559619-99 Snap Ring assembly Tool.

Used to remove and fit Snap Ring (88).



SECTION TWO

Remove Tool Holder and Beat Piece.

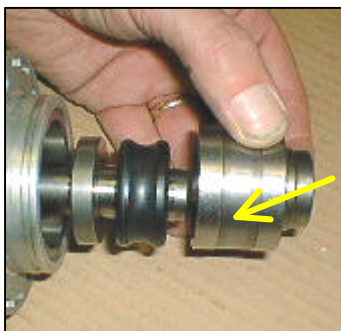
- ❑ Remove Side handle (59) if fitted.



- ❑ Undo six screws (102) remove Tool Holder Assembly (111) a flat bladed screwdriver may be required to **Gently** lever the housing away from the Anti-vibration unit.
- ❑ Beware that the internal components will fall out from the Tool Holder

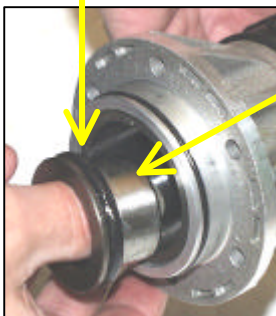


- ❑ Remove item (72) from inside the Housing.
- ❑ Remove the O Ring



- ❑ Remove items (67,68,69,70). From inside the Tool Holder Unit,

- ❑ Remove Beat Piece Bearing item (110) from Spindle (107) (this may be tight),
- ❑ Remove O Ring (109).



- ❑ Pull off Rubber Seal item (87). From end of Tool Holder Unit.

Dismantle Tool Holder Assembly. Service Tooling 559619-99 Snap Ring Assembly tool.

- ❑ Clamp Service tool into a vice.



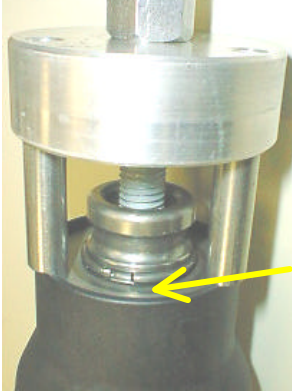
- ❑ **Important Note, Fit insert from Service Jig into the Tool Holder spindle, be careful not to damage the Seal.**



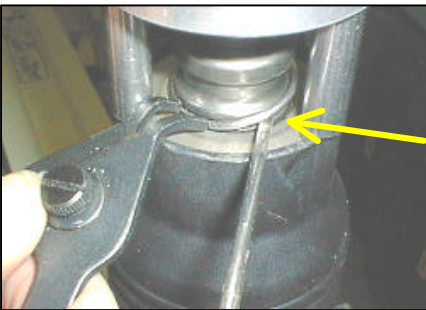
- ❑ Make sure that the insert stays in position otherwise the Seal inside the Spindle could be damaged, then lower the Tool Holder onto the Jig..



- ❑ Place the 'Three legged' part of the service tool over the threaded rod so that the legs rest on the edge of the Black Sliding Sleeve (91).



- ❑ Fit nut to threaded rod and tighten until the washer (89) is just clear of the Snap Ring (86). **Be careful not to over tighten.**



- ❑ Using circlip pliers and a small flat bladed screwdriver prise the Snap Ring from the groove then maneuver it past the large groove to clear the Spindle

- ❑ Remove the nut and the Three Legged part from the Jig.
- ❑ Remove the Snap Ring. **(Do Not re-use).**

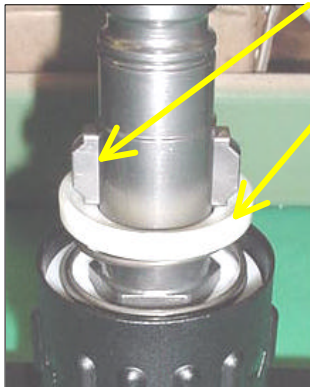


- ❑ Lift off the Sliding Sleeve Assembly
- ❑ Remove the Washer (89) **(Do Not re-use)**, Remove Rubber Ring (90) and Locking Ring (92).





- ❑ Remove Spring (93) from Tool Holder assembly.
- ❑ Remove Bush (94).



- ❑ Depress Bush (96) and remove Locking Piece (92 x 2), Bush (96) and spring (97)



- ❑ Remove the Tool Holder Assembly from the Service Jig. Make sure the insert remains in place until the Tool Holder Unit is clear of the Threaded Spindle of the service Jig.



- ❑ Remove Jig Insert from The Tool Holder.



- ❑ Lift off housing complete with the Turning sleeve Assembly from Spindle (107).



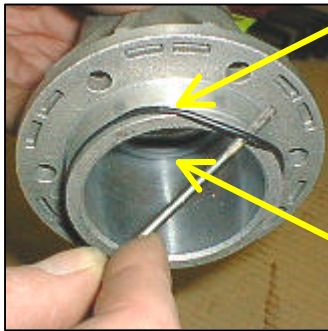
- ❑ Remove Spring Guide item (98) from Turning Sleeve Assembly



- ❑ Lever out Spring (99) **BEWARE** the Spring will be under tension.
- ❑ Remove SA Sleeve item (100).



- ❑ Pull off Turning sleeve item (101) from Housing.



- ❑ Remove O Ring (104).

- ❑ Remove O Ring (74).

If Spindle is to be re-used then remove the following.

- ❑ O-Ring (74).
- ❑ Seal (108).

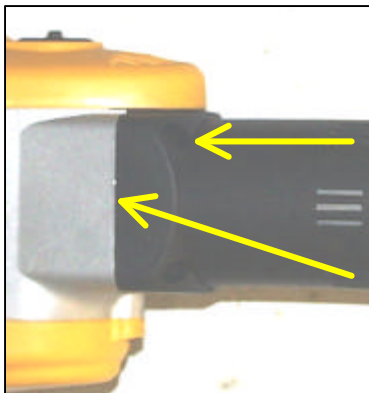
This completes the strip down of the Tool Holder Unit.

Anti-vibration unit.

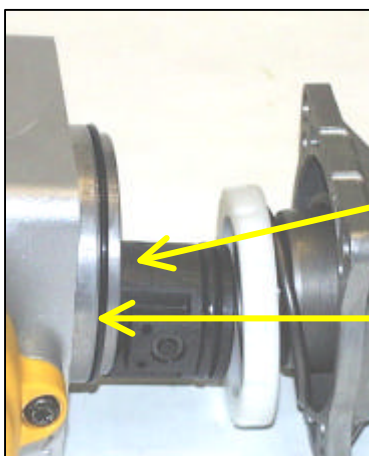
IMPORTANT NOTE ALL O RINGS MUST BE REPLACED AFTER DISMANTLING.



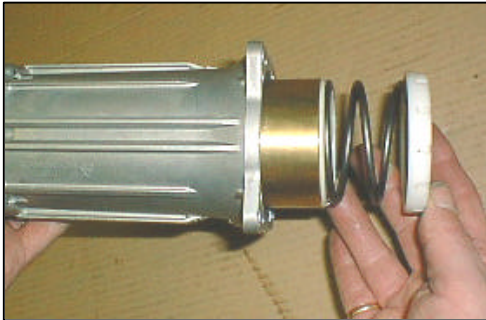
- ❑ Remove Cover (66) Pull the split apart and slide off Housing (78).



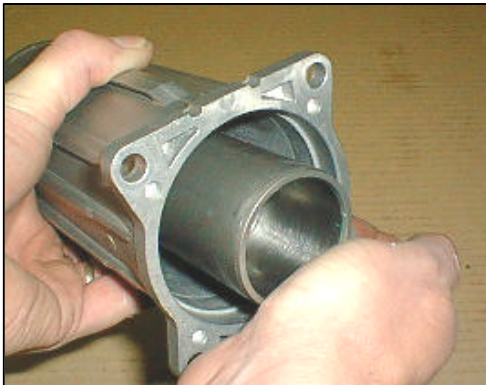
- ❑ Undo the 4 Screws (65) Holding the Anti-Vibration unit to the Motor Housing.
- ❑ Use a broad flat bladed screwdriver to **carefully** lever the Anti-Vibration unit from the Motor Housing.



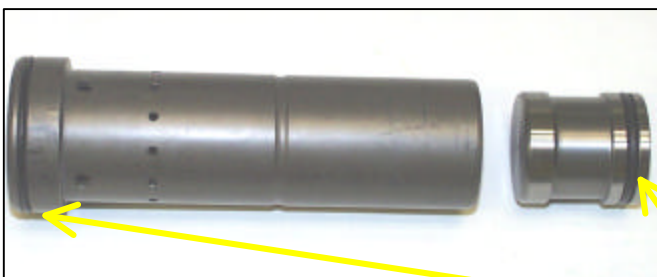
- ❑ **Beware** there will be pressure from springs inside the Anti-vibration unit. This could cause the housing to be forced from the Motor Housing and some of the components to fall out.
- ❑ **Beware also that the Piston will now be exposed when the unit is removed from Motor Housing.**
- ❑ **Remove O Ring (79).**



- ❑ Remove Anti-vibration components (80,81,82,83,86). From inside the housing.



- ❑ Remove Cylinder (75). Push on exposed part at the wide end of Housing by the 4 boltholes.



- ❑ Remove Ram (76). Push through from the wider end of Cylinder using a **non-metallic** object, to avoid any damage to the Cylinder or Ram.
- ❑ Remove O Ring (77) from Ram.
- ❑ Remove outer O Ring (74) and inner (73) from the Cylinder .

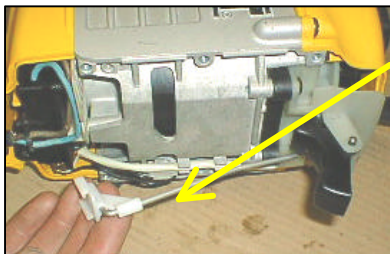
This completes the strip down of the Anti-Vibration unit.

Dismantle Motor and Gearbox

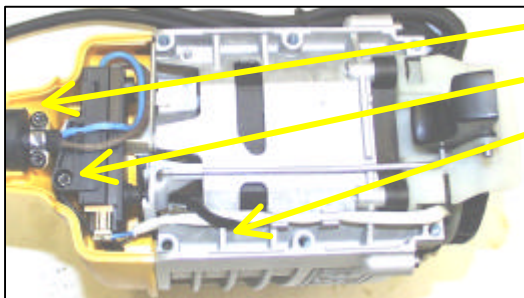
IMPORTANT NOTE ALL O RINGS MUST BE REPLACED AFTER DISMANTLING.

Remove Handle / Switch

- ❑ Remove Switch handle Cover (19) 8 Screws



- ❑ Remove Adapter (15) from Switch and remove Actuator Rod (14) from Trigger (12).

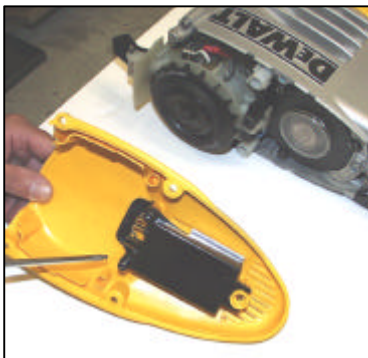


- ❑ Remove cord clamp (25) 2 Screws
- ❑ Remove Switch Clamp (24) 1 Screw.
- ❑ Cut and Remove the Cable Tie (23) from switch lead.
- ❑ Remove Switch (22) disconnect the Motor Lead (18) and Power cord (29).

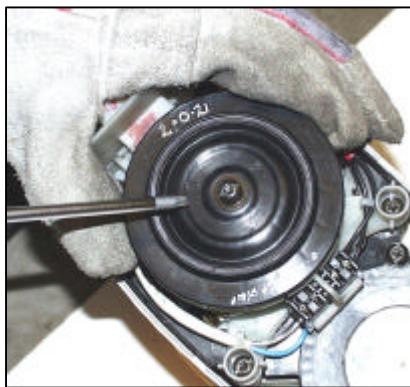


- ❑ Pull out Pin (12) Remove Trigger (13) **Beware** the two locating pins (17) will spring out when the Trigger is removed.

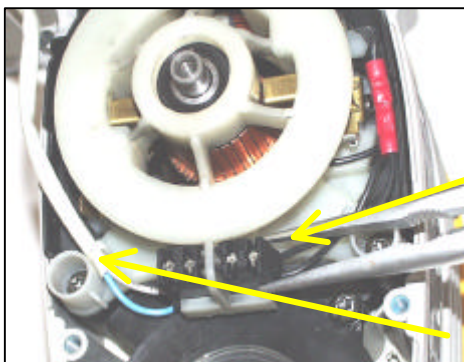
Armature & Field.



- ❑ Remove top Motor Cover (57) 5 Screws.
- ❑ Remove Electronic (54) 2 Screws, from inside Cover.



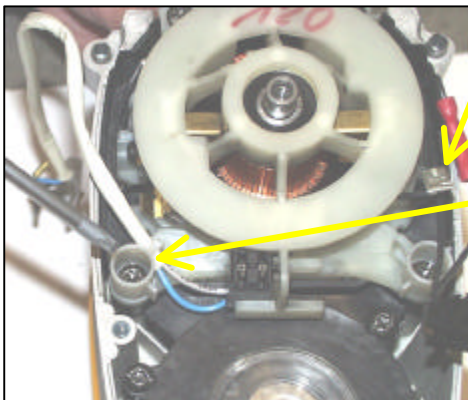
- ❑ Undo fan Screw (11). Grip outside edge of Fan; **Use protective gloves**, the edge of the Fan is very sharp. Lift off fan (10).



- ❑ Remove both the Terminals from the Brush Assembly. Use long nose pliers to release the retaining clips.
- ❑ Remove the Switch lead SA (18).

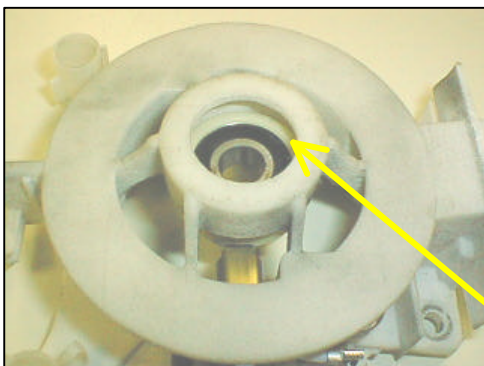


- ❑ Remove Brushes (8) Use a small Allen key to pull the spring clear of the Brush.
- ❑ Remove the brush and disconnect from Brush Holder.
- ❑ Fit new Brushes and leave spring resting on the side ready to reassemble.
- ❑ Keeping the spring in this position will allow new brushes to be fitted waiting for re-assembly.



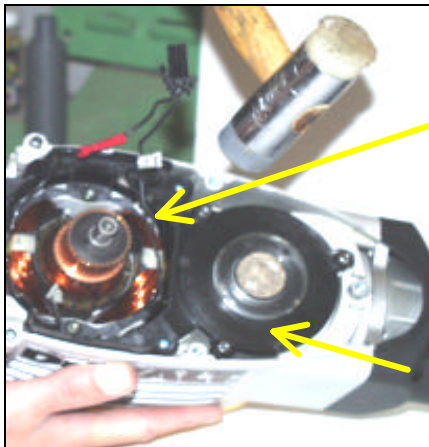
- ❑ Disconnect the two short black leads from the Brush Assembly.
- ❑ Remove the 4 Screws (58)
- ❑ Holding the Brush Assembly(3) lift clear of Armature shaft.

The Brush Holders are not available as separate parts.



- ❑ Push out Bearing (5) and insulator (4) from Brush assembly.

Drift out Field and housing (2) by lightly tapping on opposite sides of Main Casting (44).
Remove seal (33)



- ❑ Remove SA Cover (53) 3x Screws,
- ❑ Remove O ring (52) **This must be replaced.**



- ❑ Remove Piston SA (51). **This is only possible if the Anti-vibration unit has been removed.** Position the CrankShaft Pin so the Con Rod can be lifted off and removed through the front of Main Housing.

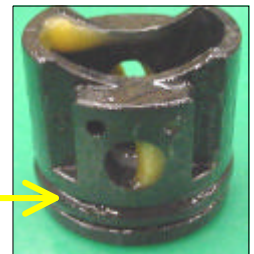


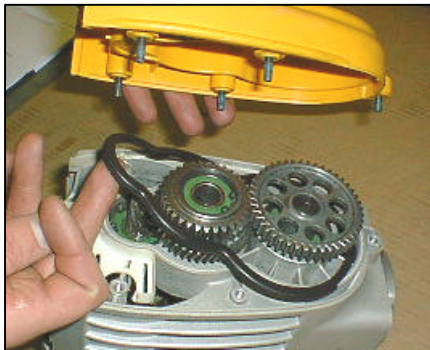
- ❑ To dismantle Piston push Pin (47) through from either side and lift Piston off Con Rod (38)



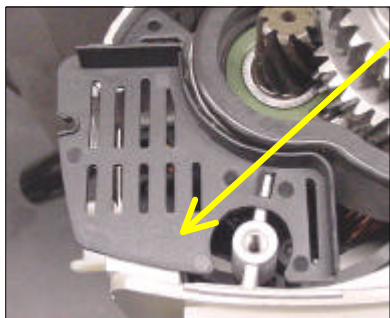
Lever out Knob (48) x 2

Remove O Ring (49)

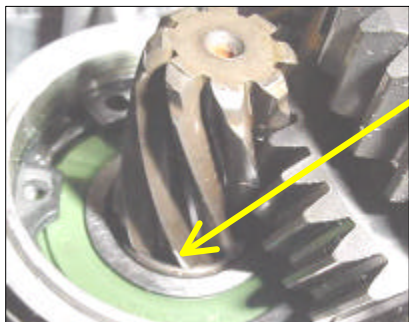




- ❑ Turn housing over
- ❑ Remove Gear Case Cover (30).
- ❑ Remove Seal (32).



- ❑ Remove the cover (21).

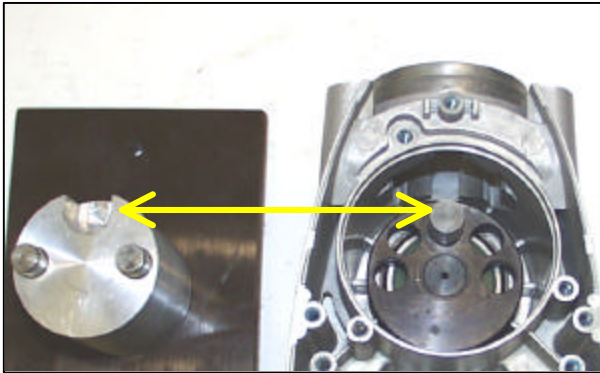


- ❑ Remove Snap Ring (16) from Armature shaft groove, this must be spread wide enough to clear the splines on the Armature shaft.
- ❑ **The Snap Ring must not be reused.** If replacing the Armature a new Snap ring will be supplied and fitted.



- ❑ Push Armature through bearing using a Press and tube.

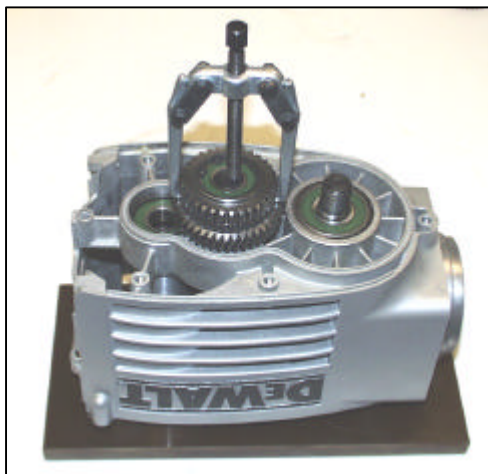
□ **Clamp Service Jig (559617-99) in a Vice.**



- Position the Main casting on to the Jig 559617-99.
- Make sure the pin on the CrankShaft (45) locates into the recess on the Jig.



- Then locate the socket part of the Jig into the large Gear(43).
- Remove Gear Anti-clockwise

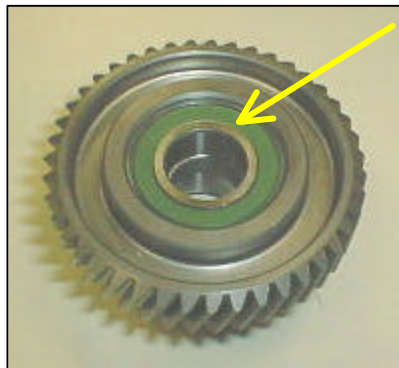


- Remove Double Gear (42) using a Puller.



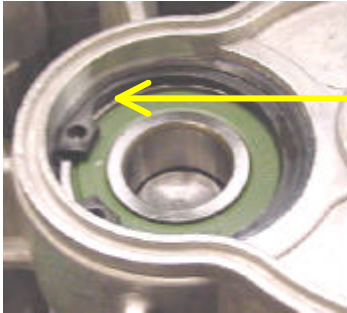
- Remove Circlip (37)

- Push Bearings(41) and Spacers (39,40) through from the large gear side using a press and a suitable size drift.

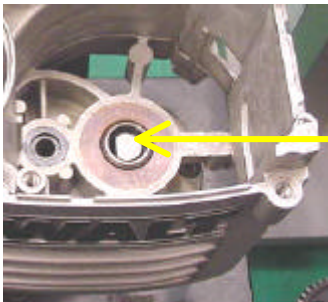


- Remove the Main casting from the service jig
- Remove the CrankShaft assembly using a press.
- Push through from the outside.

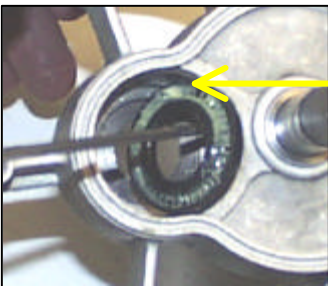
The CrankShaft bearings can not be replaced due to misalignment problems when refitting. If required the complete housing will have to be replaced.



- Remove the Circlip (34) from the Armature Bearing.



- Press out the Armature Bearing. (35)



- Remove the seal (36) **This must be replaced.**

This completes the Full Strip Down of the product.

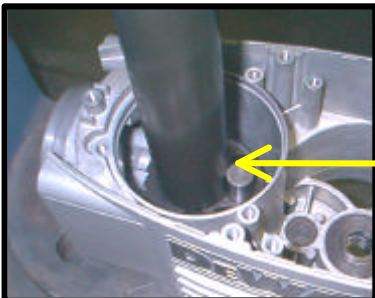
SECTION THREE.

Re-assembly of Gearbox & Crankshaft .

Service Tooling required 559618-99/ 559617-99 / 559621-99.



- Make sure the Ring Seal (46) is fitted to Crank Shaft SA (45)



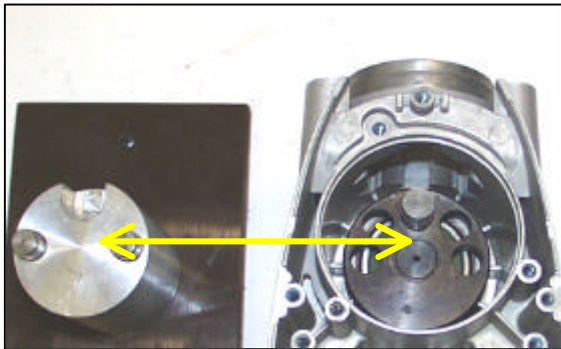
Place Main Housing on Press base so the threaded part of the Crank Shaft can be pushed through.

- Press Crankshaft into Main Housing to its limit. Check the shaft rotates freely in the bearings.

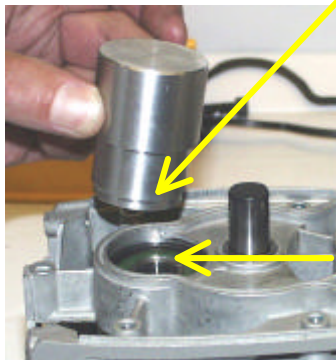


- Fit New O-Ring (79) to front of Main Housing.

REMOVE BAR FROM UNDERSIDE OF SERVICE JIG 559617-99

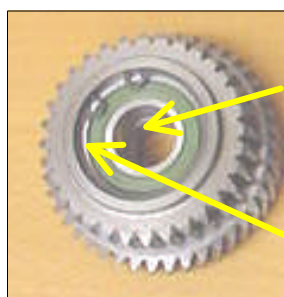
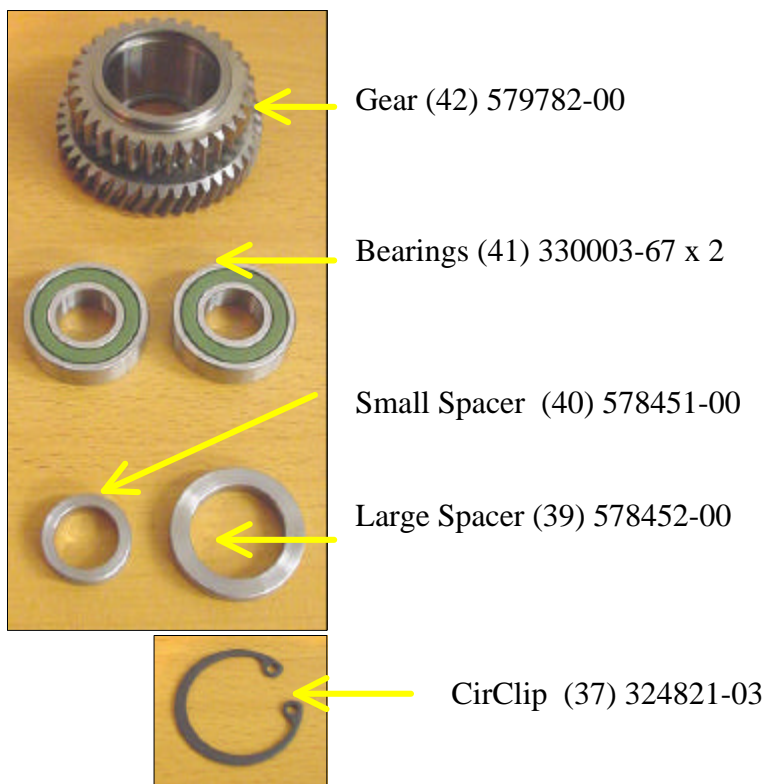


- Place Main Housing on to Service Jig 559617-99
- Make sure the pin on the CrankShaft (45) locates into the recess on the Jig.



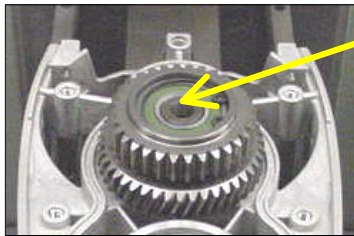
- Fit new Armature Seal to Main Housing Use Service Tool and press 559621-99. Make sure the metal insert is facing up.
- Wipe Grease (800) into the Metal insert before fitting Bearing.
- Fit Armature Bearing (35), again using Service tool 559621-99.
- Fit CirClip (34)

Double gear Assembly.



- ❑ Press one Bearing (41) into Double Gear, to its limit.
- ❑ Fit both Spacers into the Gear Assembly one resting on the inner and the other on the outer race of the Bearing one inside the other.
- ❑ Fit the second Bearing, make sure to clear the groove for the Circlip.
- ❑ Fit Circlip

The Main housing should still be on the Service Jig 559617-99.



- ❑ Place the assembled Double Gear SA onto the spindle and, using a suitable sized drift to fit on the inner race of the Bearing.
- ❑ Press down fully.

Important note it may be better to clamp the Jig into a vice before tightening the Large Gear. To do this Replace the bar on the underside .



Crank Gear. (43) 579783-00

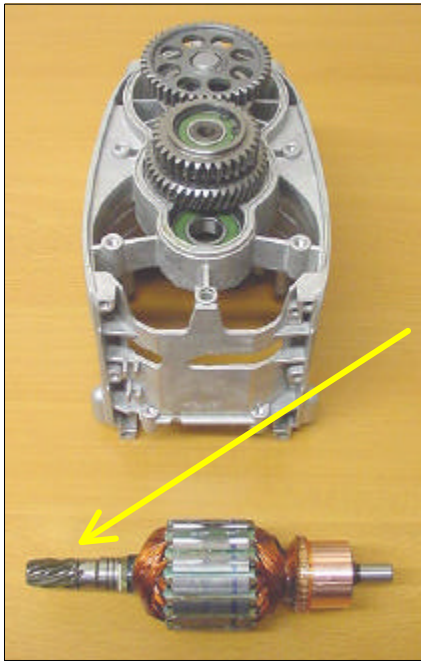


- ❑ Fit the Large Gear onto the threaded part of the CrankShaft making sure the teeth mesh correctly with the Double gear.
- ❑ Fit Socket part of Service Jig to the Gear and tighten clockwise to a torque of **14 Nm.**

Remove Housing from Service Jig.

This completes the Re-assembly of the Gearbox.
Re-assembly of Motor Unit.

Service Tooling 559618-99.

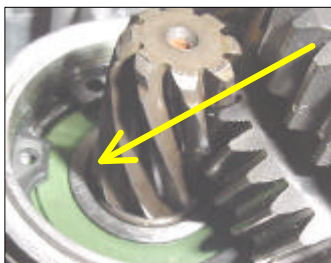


Make sure the Snap Ring is in place on the Armature. If the Armature has been replaced it will be supplied with the Ring fitted.

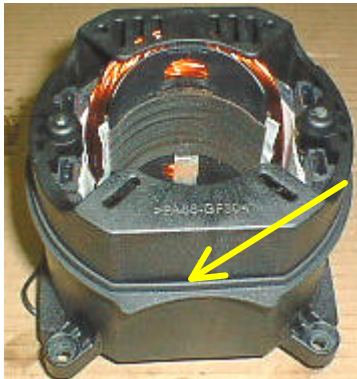
- ❑ **Place main Housing onto Service Jig 55918-99.**



- ❑ Place Armature into Main Housing through the Bearing making sure the splines mesh with the Double Gear.



- ❑ Press Armature into Bearing until the Snap Ring has passed through the Bearing and located correctly into the groove,



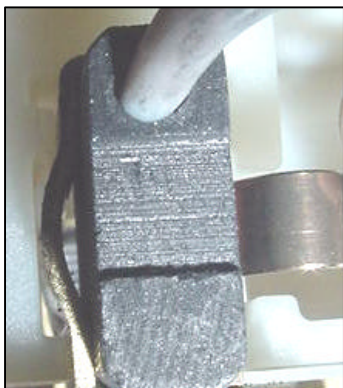
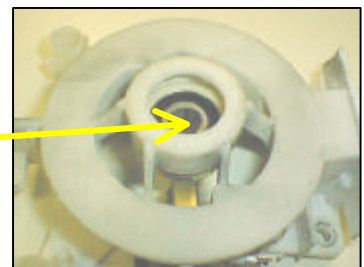
- ❑ Fit the Seal (33) to the Field Housing (2).



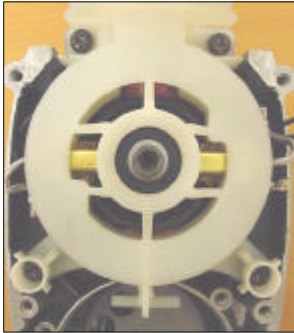
- ❑ Fit the Motor pot over the Armature and into the Main Housing making sure the Seal (33) remains in place
- ❑ Push down until seated correctly.



- ❑ Fit the Bearing (5) into the Insulator (4)
- ❑ Then Fit to the Brush Assembly



- ❑ If not already done fit new Brushes to the Brush Assembly and leave in this position.
- ❑ Connect the Lead to the tag on the Brush Holder.

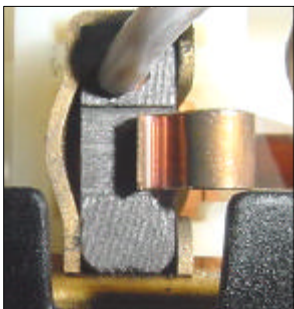
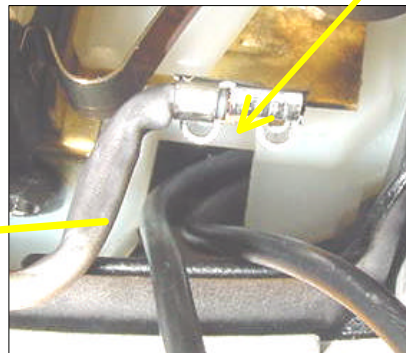
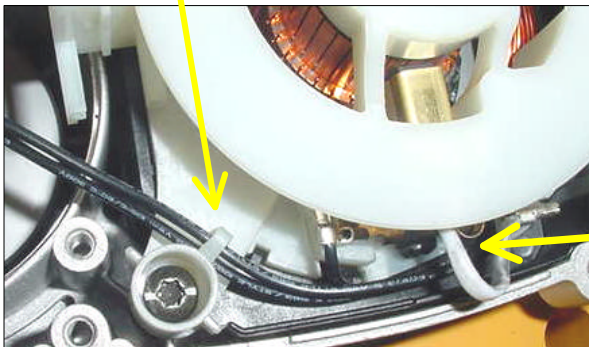


- ❑ Place the Brush Assembly (3) in position over the Armature Shaft and push down. Do not fix into place until the wires have been positioned correctly.

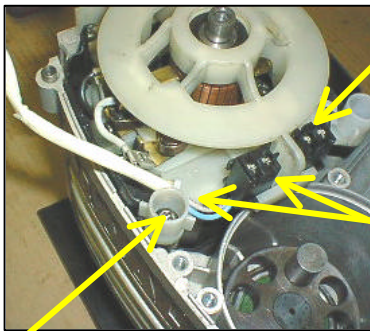


- ❑ Ensure the two short black wires are positioned one either side of the Brush Assembly through the recess as shown.
- ❑ Then connect to the terminal on the Brush holder

- ❑ The remaining two long wires with the black terminal attached pass through the recess and under the wire trap as shown.



- ❑ Release the brushes onto the Armature make sure the Spring is behind the Brush.



- Reconnect the Terminal from the Field to the Brush Assembly
- Reconnect the Switch Lead (18) to the brush assembly and pass the wire under the wire trap.
- Fit four new Screws (58) and tighten to **3 Nm**



- Fit the fan (10) to the Armature shaft and tighten the Screw to **5 Nm**.

Grip outside edge of Fan; Use protective gloves the edge of the Fan is very sharp

IMPORTANT NOTE, MAKE SURE THE FAN IS TIGHT ON THE ARMATURE SHAFT.

This compleates the Motor unit assembly.

Re-assembly of Crank Case , Piston and Gear case. Jigs Required 559618-99.

Total amount of Grease (800) 83 Grams

5 Grams on the Piston 39 Grams in Gearbox and 39 Grams in Crankcase.

The piston is also available as a SA 579779-00.



- ❑ Fit the two white knobs (48) into the ends of the pin (47).

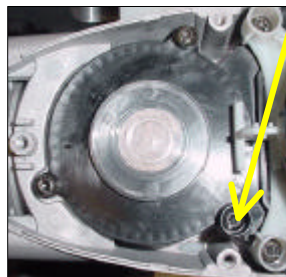


- ❑ Grease all around the piston inside and out with **5 Grams** of item (800) Place the smaller diameter of the Con Rod into the piston and push the Pin through until it is centered.
- ❑ Grease the larger diameter hole in the Con Rod.
- ❑ Fit O Ring (49) to the Piston



- ❑ Refit Piston SA into CrankCase.
- ❑ Position the CrankShaft Pin so the Con Rod can be fitted through the front of. Main Housing. Leave the piston in this position ready to fit the Anti-Vibration unit.
- ❑ Distribute 39 Grams of Item (800) Grease into CrankCase.

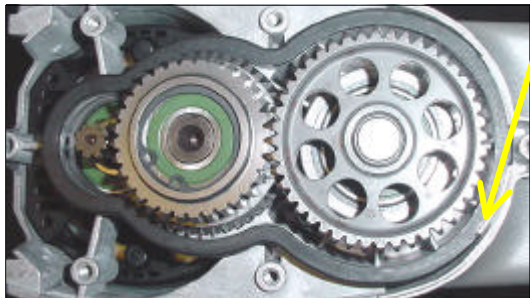
- ❑ Make sure a new O Ring (52) is fitted then Refit the Cover (53). Tighten Screws to **3 Nm**.



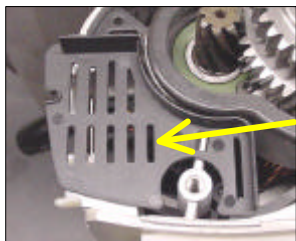
- ❑ Fit Electronics into the motor cover, line up the 'D' in the Module spindle with the 'D' in the Cover.
- ❑ Fit the cover to the Main Housing
- ❑ Tighten the Screws to **3 Nm**



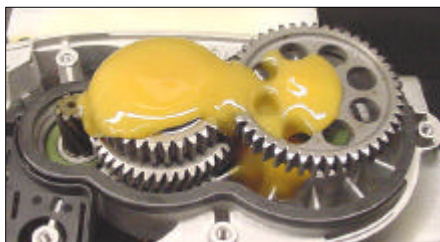
- Remove Housing from Service Jig and turn over.



- Fit a new Seal (32) to the Main Housing make sure the seal fits into the groove in the housing.



- Fit cover (21).



- Distribute 39 Grams of item (800) Grease over the Gears.



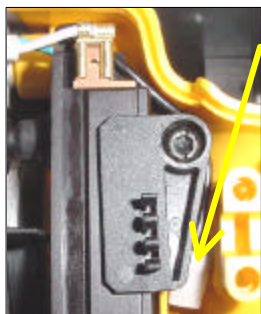
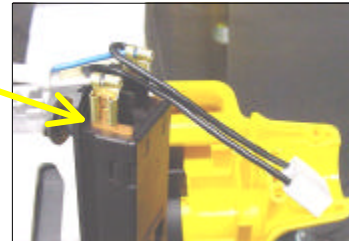
- Fit Gear Case Cover (30). Tighten screws to 3 Nm.

This completes the reassemble of the CrankCase, Piston and Gearcase.

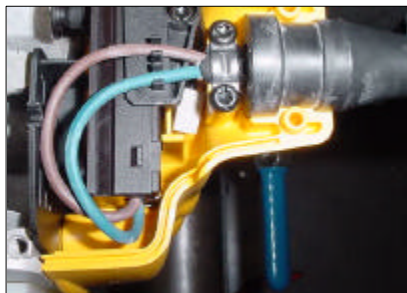
Reassemble the Switch / Handle.



- ❑ Fit motor Leads to the switch
- ❑ Fit the Power Cord leads to the Switch.



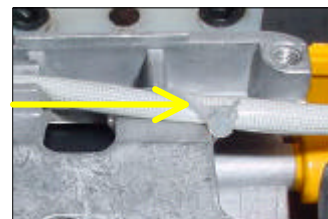
- ❑ Position suppressor as shown.
- ❑ Locate Switch into position.
- ❑ Fit Switch Clamp.



- ❑ Fit Power Cord and cord Clamp
Tighten the screws to **1.8 Nm**

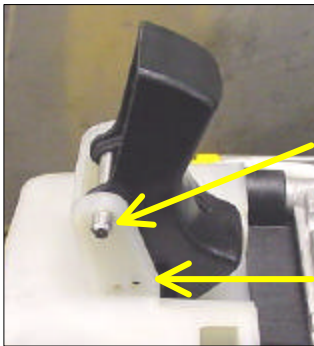


- ❑ Locate the Motor Cable and Cable Tie as shown.



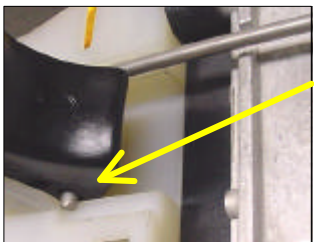


- Fit two the two spring loaded pins (17) to the trigger (13).

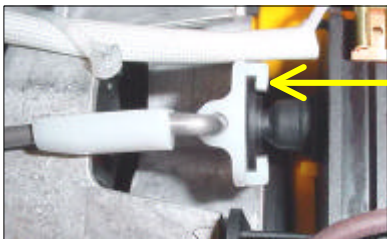


Keep hold of the two spring loaded Pins during this operation

- Position the Trigger into the housing in the Brush Assembly.
- Line up the holes and push the pin (12) through the Housing and into the Trigger, and centralize.
- Push the two springs in and press the trigger into the housing until it clicks twice.



- Locate the actuator rod (14) into the trigger.



- Position the Adapter (15) over the button on the Switch and slide over until it clicks.



- Fit Switch Handle Cover (19).
- Tighten the 6 Screws (58) to **3Nm**

- Tighten the 2 Screws (26) to **1.8 Nm**

This completes the reassemble of the Switch Handle Assembly.

Reassemble Cylinder and Ram.

Amount of Grease (800) 10 Grams to be distributed between Ram & Cylinder.



Housing (78) 579769-00.

Cylinder (75) 579770-00.

O-Ring (74) 323711-41

Ram (76) 579780-00

O-Ring (73) 487279-00

O-Ring (77) 487296-00



❑ Fit new O Ring (74) over wide end of Cylinder.



❑ Fit new O Ring (73) to groove on inside of Cylinder.

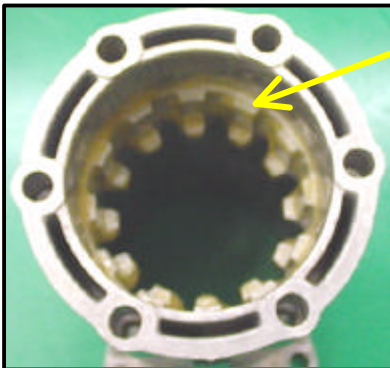
❑ Grease the inside of the Cylinder with item (800).



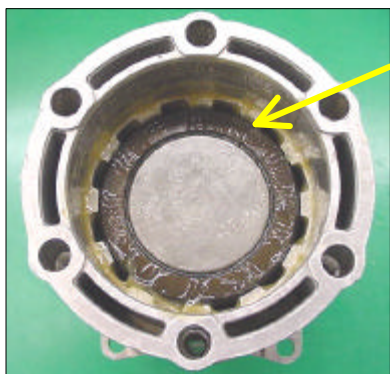
❑ Grease the Ram (76) and fit a new O-Ring (77).



- ❑ Grease the inside of the Front Housing and the outside of the Cylinder with item (800).
- ❑ Fit the Ram (76) into the Cylinder (75) with the O-Ring entering last. Use the Service Tool 559620-99 to push the Ram down until it reaches the bottom.
Beware grease will come out of the holes in the Cylinder.
- ❑ Make sure the inside of the Cylinder is still coated with Grease.



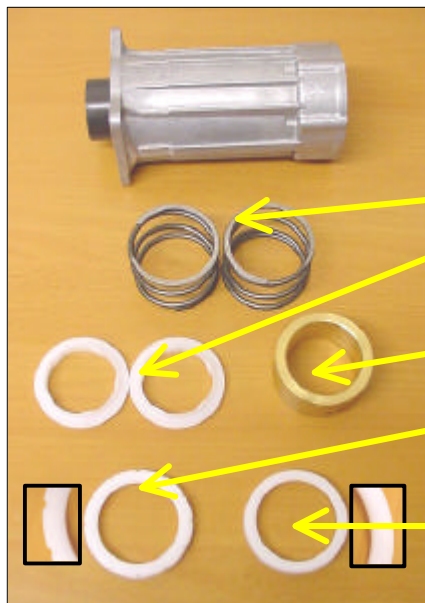
- ❑ Grease the inside of the Housing around the teeth.



- ❑ Fit the Cylinder into the Housing (78) with the thinner diameter first. Push down until the larger diameter sits in the teeth.

This completes the reassemble of the Cylinder and Ram .

Reassemble Anti-Vibration Unit. Total amount of Grease (800) 39 Grams.



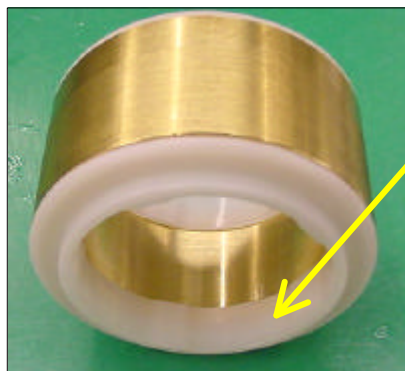
Spring x 2 (81) 487247-00.

Guide x 2 (82) 576489-00.

Counterweight (83) 579781-00.

Spring Guide grooved (86) 576488-00

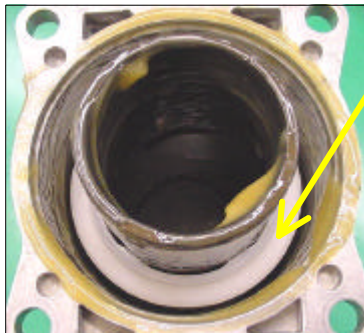
Spring Guide smooth (80) 487293-00



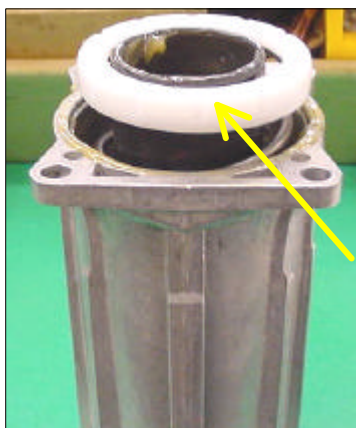
- ❑ Fit the 2 Guides (82) to the Counterweight (83) with the tapered diameter into the internal bore of the Counterweight.



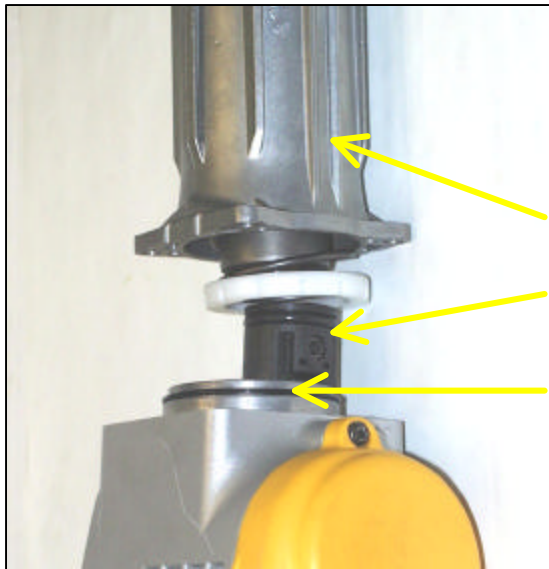
- ❑ Fit the smooth Spring Guide into the housing over the Cylinder with the recess facing up.
- ❑ Lightly grease both ends of one Spring (81) place the spring over the Cylinder and into the Housing.



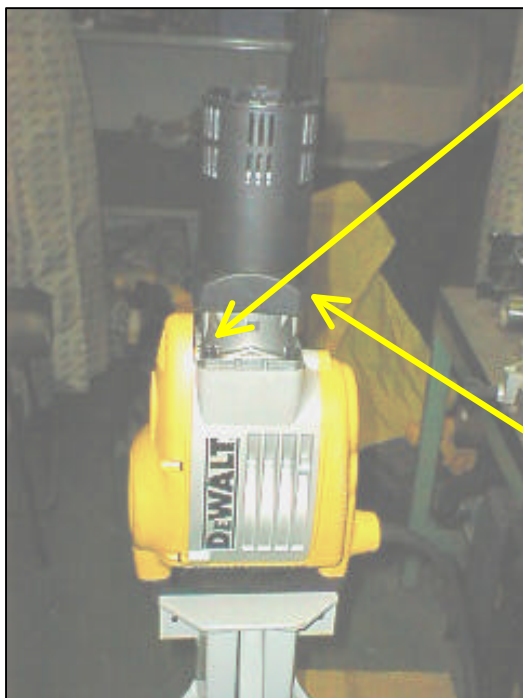
- Grease around the Counterweight SA, place over the cylinder and onto the Spring.



- Lightly grease both ends of the remaining Spring (81) place over Cylinder onto the Counterweight.
- Place the Grooved Spring Guide (86) onto the Spring with the recess facing down.



- ❑ Refit the Anti-Vibration Unit to the Main housing, this can be made easier if the Switch Handle is clamped into a vice. Protect the Handle from damage by using soft jaws or rag.
- ❑ Make sure the narrow rib on the Front Housing is facing the Gearbox and holding the internal parts in position. Maneuver the Piston into the Cylinder and lower onto the Main Housing.
- ❑ Make sure O Ring is in place.



- ❑ Fit the 4 Screws (65) and tighten to **17 Nm**.
- ❑ The correct sequence is to tighten the screws in opposite corners in turn
- ❑ Pick up the black plastic Housing (66). Pull the split apart and line it up with the narrow groove facing the Gearbox, slide over the housing until it clicks into place.

This completes the Re-assembly of the Anti-vibration unit.

SDS Spindle.

Service Tool 559620-99

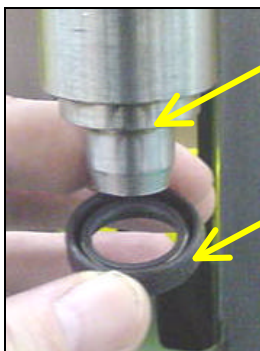
If the Spindle is being replaced it will be supplied with the seal already fitted.



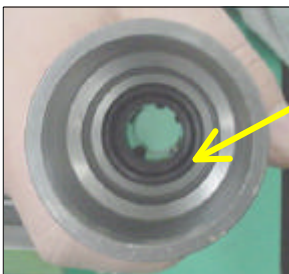
Spindle 579773-00.

Beat piece seal 487243-00.

- ❑ Fit new seal (108) into Spindle (107) using the Service Tool 559620-99.

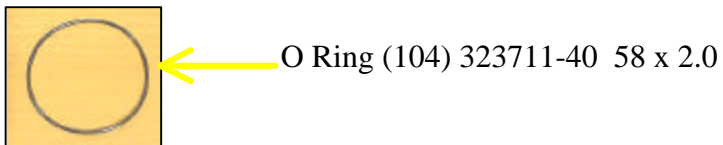
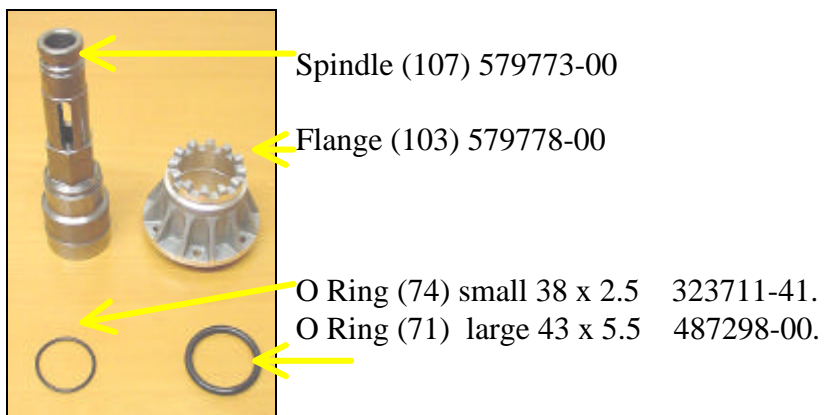


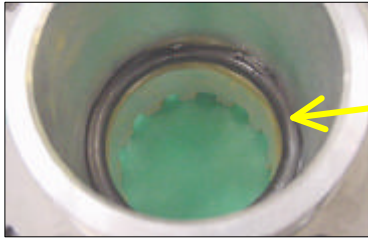
- ❑ Make sure the Seal is fitted to the Service Tool in the correct position with the spring against the shoulder, see photo.
- ❑ Lightly Grease the outside of the seal.



- ❑ Push Seal into spindle until seated correctly

Spindle & Flange Assembly.

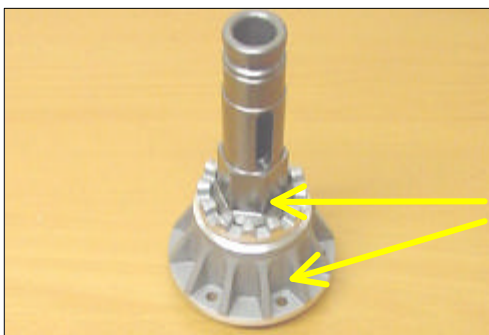




- Smear a little grease item (800) into recess in the Flange (103), then fit a new large O Ring (74) into recess.



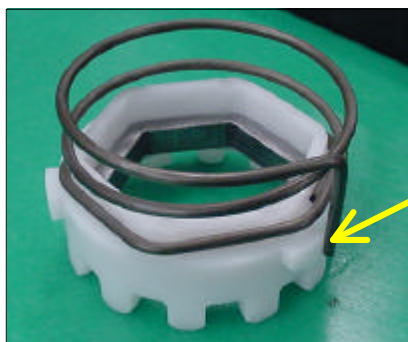
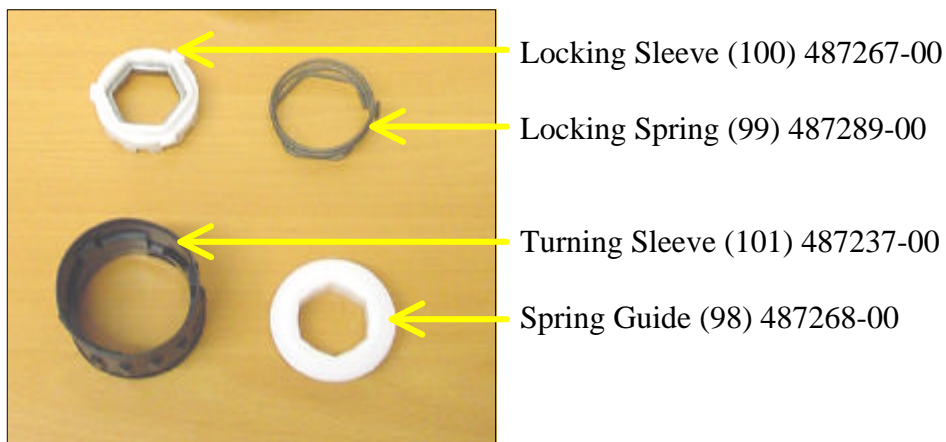
- Fit new O Ring (104) to the groove in the flange.



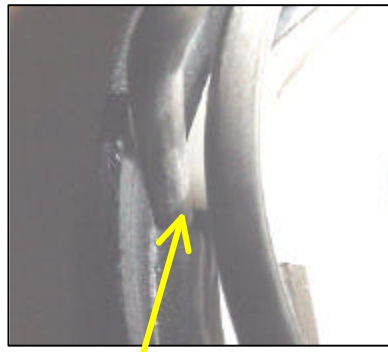
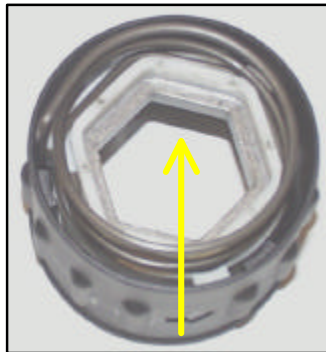
- Place the Flange (103) over the thin end of the spindle (107) and push down fully.
- Hold Flange still and turn Spindle until corner of hexagon sits in line with a hole in the flange base.

This completes the Spindle and Flange Re-assembly.

Turning Sleeve Assy.



- ❑ Place the Locking Sleeve (100) on the bench with the teeth down, seat the hexagon coil of the spring on the hexagon of the sleeve.
- ❑ The angled end the spring must be facing down and lying next to the lip.



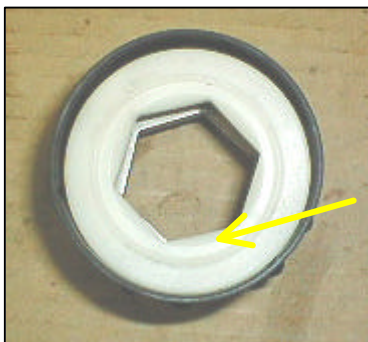
- ❑ Place the Locking Sleeve and Spring, with the teeth facing down, inside the turning sleeve. Ensure the angled end of the spring coil slots into one of the holes on the inside of the Sleeve (101)
Push the Spring (99) down with the angled end in the hole.



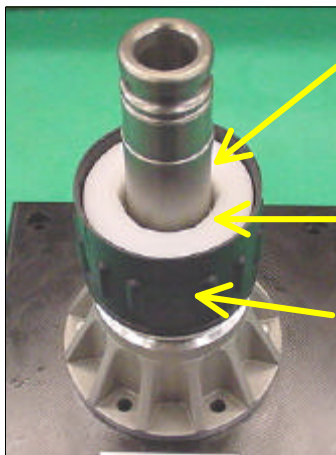
- ❑ Using the Service Tool place the hexagon end into the hexagon of the locking sleeve. Twist the Service Tool to the right, keeping slight downward pressure on, until you feel the locking sleeve move down into the turning sleeve.
- ❑ **Remove the Service tool very carefully and hold the spring in place otherwise it can jump out of its location.**



- ❑ Make sure the angled end of the spring is pushed down as far as it will go into the hole in the Turning Sleeve.



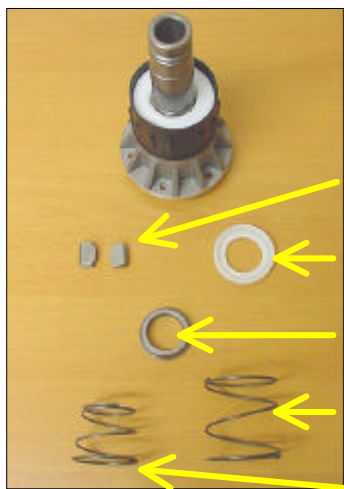
- ❑ Place the Spring Guide (98) into the turning sleeve with the hexagon facing down interlocking with the locking sleeve.
- ❑ Make sure the Hexagon on both the Guide and locking Sleeve line up.



- ❑ Hold the white plastic guide in place to prevent the spring becoming dislodged, then place the Turning Sleeve SA over the Spindle with the ridged diameter facing down.
- ❑ Make sure the hexagon of the Spindle lines up with the hexagon in the Sleeve SA.
- ❑ Press the Turning sleeve SA down until it clicks into place.
- ❑ Check that the Turning Sleeve twists to the right and the spring returns.

This completes the Turning Sleeve Re-assembly.

Tool bit locking Assembly.



Locking Piece (95) 487239-00 x 2

Washer (96) 487240-00

Bush Damper (94) 487249-00

Spring (93) 487218-00

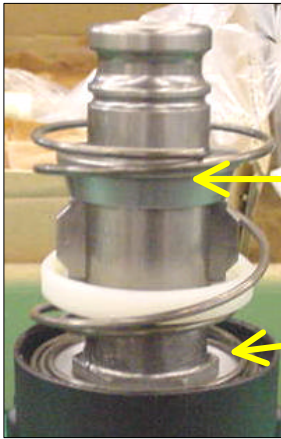
Conical Spring (97) 487216-00



- ❑ Fit the conical spring (97) over the spindle, with the tapered end up.
- ❑ Fit the washer (96) over the spindle so it lies on the spring with the recess up.



- ❑ Push down the washer (96) until it is clear of the two slots in the spindle.
- ❑ Lightly grease the two slots before fitting the Locking Pieces.
- ❑ Place the rounded straight edge of one Locking Piece (95) into each slot in the spindle.
- ❑ Release the pressure on the washer and let it rest on the locking pieces.



- ❑ Place the Bush Damper (94) over the spindle so it rests on the locking pieces with the taper facing down.
- ❑ Place the Spring (93) over the spindle and let it rest on the locking sleeve.

This completes the Re-assembly of the Tool Bit Locking assembly.

Sliding Sleeve/ Snap Ring Assembly. Use Service Tool 559619-99.



- Sliding Sleeve (91) 487236-00
- Locking Bush (92) 487246-00
- Damper (90) 486244-00
- Washer (89) 487241-00
- Seal (87) 487238-00
- Snap Ring (88) 487205-00



- ❑ Place the Locking Bush (92) into the wide end of the Sliding Sleeve (91) and make sure that it is seated correctly.



- ❑ Turn the Sliding Sleeve over.
- ❑ Fit the Chisel Damper (90).
- ❑ Place a new Washer (89) on top of the Damper with the recess facing out.

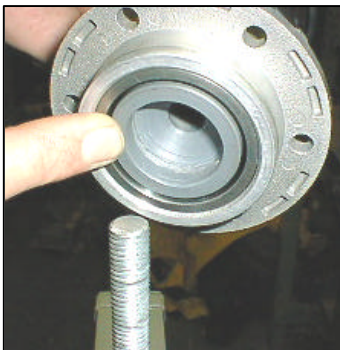
Snap Ring Assembly



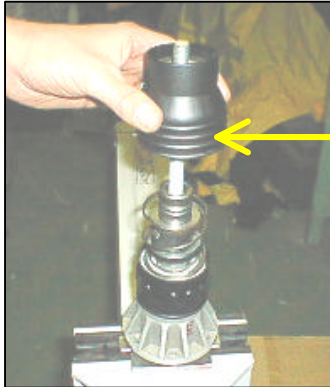
- Clamp Service Tool 559620-99 in vice.



- Fit insert from Service Jig into the spindle be careful not to damage the Seal .



- Place Flange and Spindle SA on Service Jig,
- MAKE SURE THE PROTECTIVE INSERT STAYS INSIDE THE SPINDLE WHILE THE FLANGE IS LOWERED ONTO THE SERVICE TOOL. OTHERWISE THE SEAL WILL BE DAMAGED BY THE THREAD ON THE STUD



- ❑ Fit Sliding Sleeve Assembly over spindle.

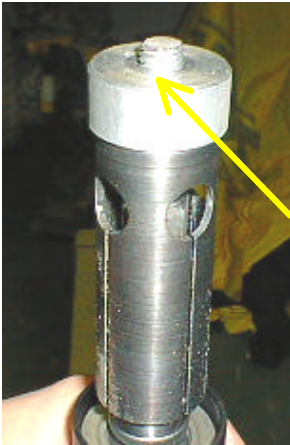


- ❑ Press the sliding sleeve down until Spindle shows through the center of the Washer, Make sure the Washer has the recess facing up.

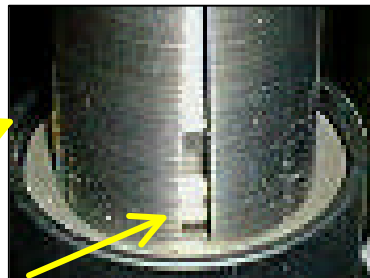
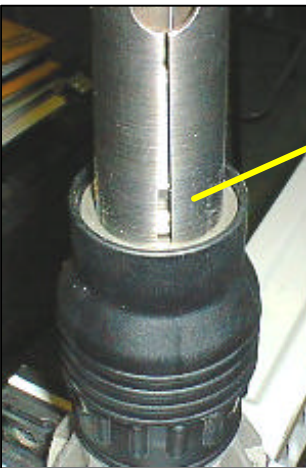
HOLD IN THIS POSITION THROUGHOUT THE FOLLOWING OPERATION.



- ❑ Screw the Cone Shaped part of the Service jig down until it comes in contact with the Spindle and lock with a spanner (DO NOT OVER TIGHTEN).
- ❑ Fit New Snap Ring (88) over Cone of the Service Jig.



- ❑ Place Collet over Cone and position the spacer washer with the recess facing down.
- ❑ Push down until the threaded rod protrudes sufficiently to fit the nut.



- ❑ Screw down the nut until the Snap Ring is in the Groove in the Spindle Four clicks should be heard.
- ❑ The Top of the threaded bar and the top of the Nut should be flush when the Snap Ring is in the correct position.

- ❑ Remove the nut and spacer washer from Jig
- ❑ Undo the cone and remove from Jig.
- ❑ Making sure the Insert stays inside the housing, Lift off the complete Assembly with the collet still attached to the Spindle. Now pull off collet from Spindle.

- Check that the Snap Ring is correctly seated.



- Fit the Seal (87).
- Check that the Sliding Sleeve (91) can be pulled down and returns to its start position.
- Check the Turning Sleeve rotates anti-clockwise.

This completes the Sliding Sleeve / Snap Ring Re-assembly.

Beat piece Assembly.

Total amount of Grease (800) 7 Grams.



Beat piece (67) 579832-00

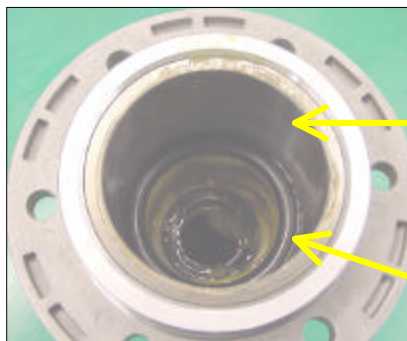
Bush Damper (70) 579786-00

Damper (69) 487288-00

O Ring (109) 487299-00 35 x 5

Washer (68) 487270-00

Bearing (110) 579785-00

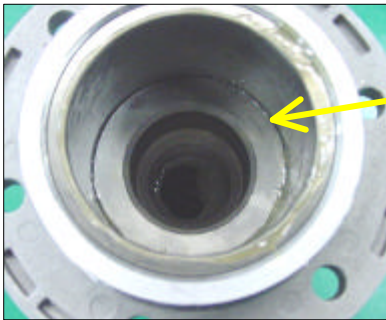


□ Grease all round the inner bore of the Spindle with item (800)

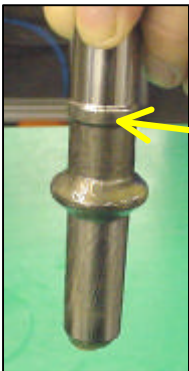
□ Fit new O Ring (109) push down until it lies in the recess then re-grease the inner bore of the Spindle.



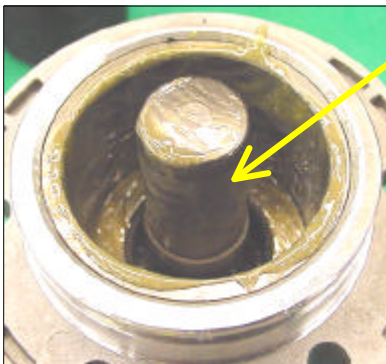
- Lightly coat the outside diameter of Bearing Bush (110) with Grease item (800).



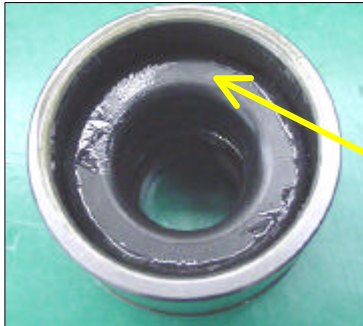
- Push the smallest diameter into the bore of the tool holder until it reaches its limit.



- Coat the Beatpiece with grease (800) up to the smallest ridge



- Then place the greased end of the Beatpiece into the Tool Holder. Then lightly grease the top end of the Beatpiece and inner boar of the Spindle.



- Lightly coat the inside diameter of Bush (70) with grease (800) then push in the Damper (69) until it reaches its limit.



- Place the Washer (68) into the Bush (70) with the internal taper facing up.

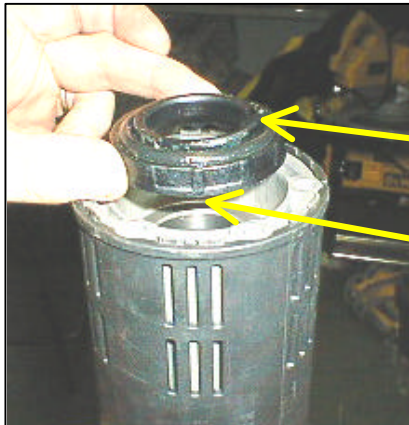


- Coat the outside diameter of the Bush Damper Assembly



- with the small diameter facing up, place over the Beatpiece and into the tool holder Assembly.

The Tool Holder Assembly is now ready to fit onto the Anti-Vibration Unit.

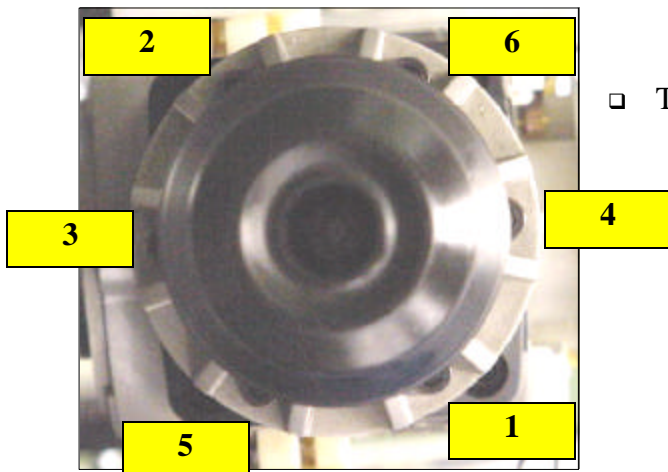


- ❑ Lightly Grease the Bush (72).
- ❑ Fit new O-Ring (71) to the Bush.
- ❑ Place the Bush into the Front housing with the O-Ring facing up.



Make sure the internal components of the Tool Holder do not fall out when fitting to the Front Housing

- ❑ Fit the Tool Holder Unit to the Front Housing lining up the six screw holes



- ❑ Tighten the 6 Screws in this Sequence to **10 Nm.**

This completes the Re-assembly of the D25900Hammer.

SECTION FOUR.

Routine Servicing

When the unit comes in to Service for changing the brushes, typically after 250 to 300 hrs.

The following items should be carried out.

- **Replace O-Ring 487213-00 (49) on Piston.**
- **Replace O-Ring 323711-44 (79) on Main Housing.**
- **Replace O-Ring 487296-00 (77) on Ram.**
- **Replace O-Ring 487297-00 (73) inside Cylinder.**
- **Replace O-Ring 487299-00 (109) inside Spindle**
- **Replace Seal 487243-00 (108) inside Spindle.**
- **Lubricate all the above and replace the Grease 578970-02 140g (800) in the Gearbox and Crankcase.**
- **Replace Washer 487241-00 (89) & Snap Ring 487205-00 (88).**
- **Replace rubber - nose 487238-00 (87)**
- **Replace Brushes 487340-00 230v or 487340-01 115v.**

Fault finding.

Unit Lacks Power.	Worn O-Rings on the Piston and Cylinder Low Motor Speed, check No Load Amps Worn Piston or Cylinder. Faulty Electronics.
Motor Speed incorrect	Armature / Field faulty. Check No Load Amps Faulty electronics Fan Loose on Armature Shaft (motor running to fast) . Magnetic ring missing from fan (motor running to fast).
Unit will not run.	Brushes worn. Electronics faulty. Switch actuator rod not connected. Switch actuator broken.

RUN TEST DATA.

No Load amps.	At Max Speed .
Min Max	Volts.
3.2 5.2	230/240
7.0 8.5	115/120
Flash Test with switch on.	4000v for 230/240v Double insulated units. 1500v for 120v unit with Earth.