

INSTRUCTIONS FOR SERIES 2925 AND 2925RB SUPER DUTY IMPACTTOOLS

NOTICE

Series 2925 and 2925RB Impacttools are designed for use in heavy assembly work and machinery maintenance.

Ingersoll–Rand is not responsible for customer modification of tools for applications on which Ingersoll–Rand was not consulted.

⚠ WARNING

**IMPORTANT SAFETY INFORMATION ENCLOSED.
READ THIS MANUAL BEFORE OPERATING TOOL.**

**IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PLACE THE INFORMATION
IN THIS MANUAL INTO THE HANDS OF THE OPERATOR.
FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.**



PLACING TOOL IN SERVICE

- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code for Portable Air Tools (ANSI B186.1).
- Always operate, inspect and maintain this tool in accordance with all regulations (local, state, federal and country), that may apply to hand held/hand operated pneumatic tools.
- For safety, top performance, and maximum durability of parts, operate this tool at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet with 1/2" (13 mm) inside diameter air supply hose.
- Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
- Do not use damaged, frayed or deteriorated air hoses and fittings.
- Be sure all hoses and fittings are the correct size and are tightly secured. See Dwg. TPD905–1 for a typical piping arrangement.
- Always use clean, dry air at 90 psig maximum air pressure. Dust, corrosive fumes and/or excessive moisture can ruin the motor of an air tool.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- Do not remove any labels. Replace any damaged label.

USING THE TOOL

- Always wear eye protection when operating or performing maintenance on this tool.

- Always wear hearing protection when operating this tool.
- Keep hands, loose clothing and long hair away from rotating end of tool.
- Note the position of the reversing lever before operating the tool so as to be aware of the direction of rotation when operating the throttle.
- Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
- Keep body stance balanced and firm. Do not overreach when operating this tool. High reaction torques can occur at or below the recommended air pressure.
- Tool shaft may continue to rotate briefly after throttle is released.
- Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
- Use accessories recommended by Ingersoll–Rand.
- Use only impact sockets and accessories. Do not use hand (chrome) sockets or accessories.
- Impact wrenches are not torque wrenches. Connections requiring specific torque must be checked with a torque meter after fitting with an impact wrench.
- This tool is not designed for working in explosive atmospheres.
- This tool is not insulated against electric shock.

NOTICE

The use of other than genuine Ingersoll–Rand replacement parts may result in safety hazards, decreased tool performance, and increased maintenance, and may invalidate all warranties.

Repairs should be made only by authorized trained personnel. Consult your nearest Ingersoll–Rand Authorized Servicenter.

Refer All Communications to the Nearest
Ingersoll–Rand Office or Distributor.

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INGERSOLL-RAND®
PROFESSIONAL TOOLS

WARNING LABEL IDENTIFICATION



FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

	WARNING
	Always wear eye protection when operating or performing maintenance on this tool.

	WARNING
	Always wear hearing protection when operating this tool.

	WARNING
	Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.

	WARNING
	Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.

	WARNING
	Do not carry the tool by the hose.

	WARNING
	Do not use damaged, frayed or deteriorated air hoses and fittings.

	WARNING
	Keep body stance balanced and firm. Do not overreach when operating this tool.

	WARNING
	Operate at 90 psig (6.2 bar/ 620 kPa) Maximum air pressure.

International Warning Label:
Order Part No. _____

PLACING TOOL IN SERVICE

LUBRICATION



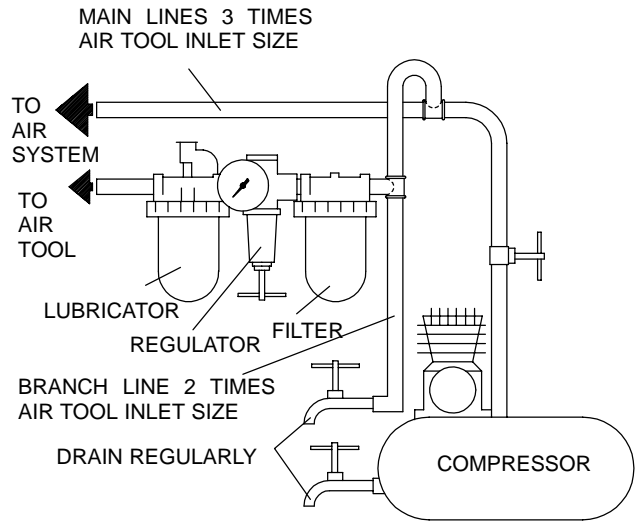
Ingersoll-Rand No. 50

Ingersoll-Rand No. 170

Always use an air line lubricator with these tools.
We recommend the following Filter-Lubricator-Regulator Unit:

For USA – No. C28-04-FKG0-28
For International – No. C28-C4-FKG0

After each forty-eight hours of operation, or as experience indicates, inject about 4 cc of Ingersoll-Rand No. 170 Grease into the Grease Fitting.



(Dwg. TPD905-1)

SPECIFICATIONS

Model	Type of Grip	Drive	Impacts per min.	Recommended Torque Range	
				Forward ft-lbs (Nm)	Reverse ft-lbs (Nm)
		in.			
2925P1 (non-bias)	pistol	3/4" sq. dr.	1,050	350-1,100 (475-1,492)	350-1,100 (475-1,492)
2925P3 (non-bias)	pistol	1" sq. dr.	1,050	350-1,100 (475-1,492)	350-1,100 (475-1,492)
2925RBP1 (reverse-bias)	pistol	3/4" sq. dr.	1,050	300-950 (407-1,288)	400-1,400 (542-1,898)
2925RBP3 (reverse-bias)	pistol	3/4" sq. dr.	1,050	300-950 (407-1,288)	400-1,400 (542-1,898)

Model	■ Sound Level dB (A)		◆ Vibrations Level
	Pressure	Power	m/s ²
2925P1 (non-bias)	98	111	5.3
2925P3 (non-bias)	98	111	5.3
2925RBP1 (reverse-bias)	98	111	5.3
2925RBP3 (reverse-bias)	98	111	5.3

- Tested in accordance with PNEUROP PN8NTC1.2 at free speed
- ◆ Tested to ISO8662-1 loaded with frictionbrake to 9 RPM

DECLARATION OF CONFORMITY

We Ingersoll-Rand, Co.
(supplier's name)

78192 Trappes Cedex France

(address)

declare under our sole responsibility that the product,

Series 2925 and 2925RB Impacttools

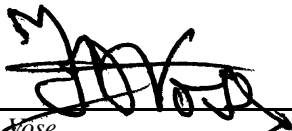
to which this declaration relates, is in compliance with the provisions of

98/37/EC

Directives.

By using the following Principle Standards: ISO8662 PNEUROP PN8NTC1

Serial No. Range: (1997 →) XUA XXXXX →



D. Rose
Name and signature of authorised persons



Kevin R. Morey
Name and signature of authorised persons

September, 1999

Date

September, 1999

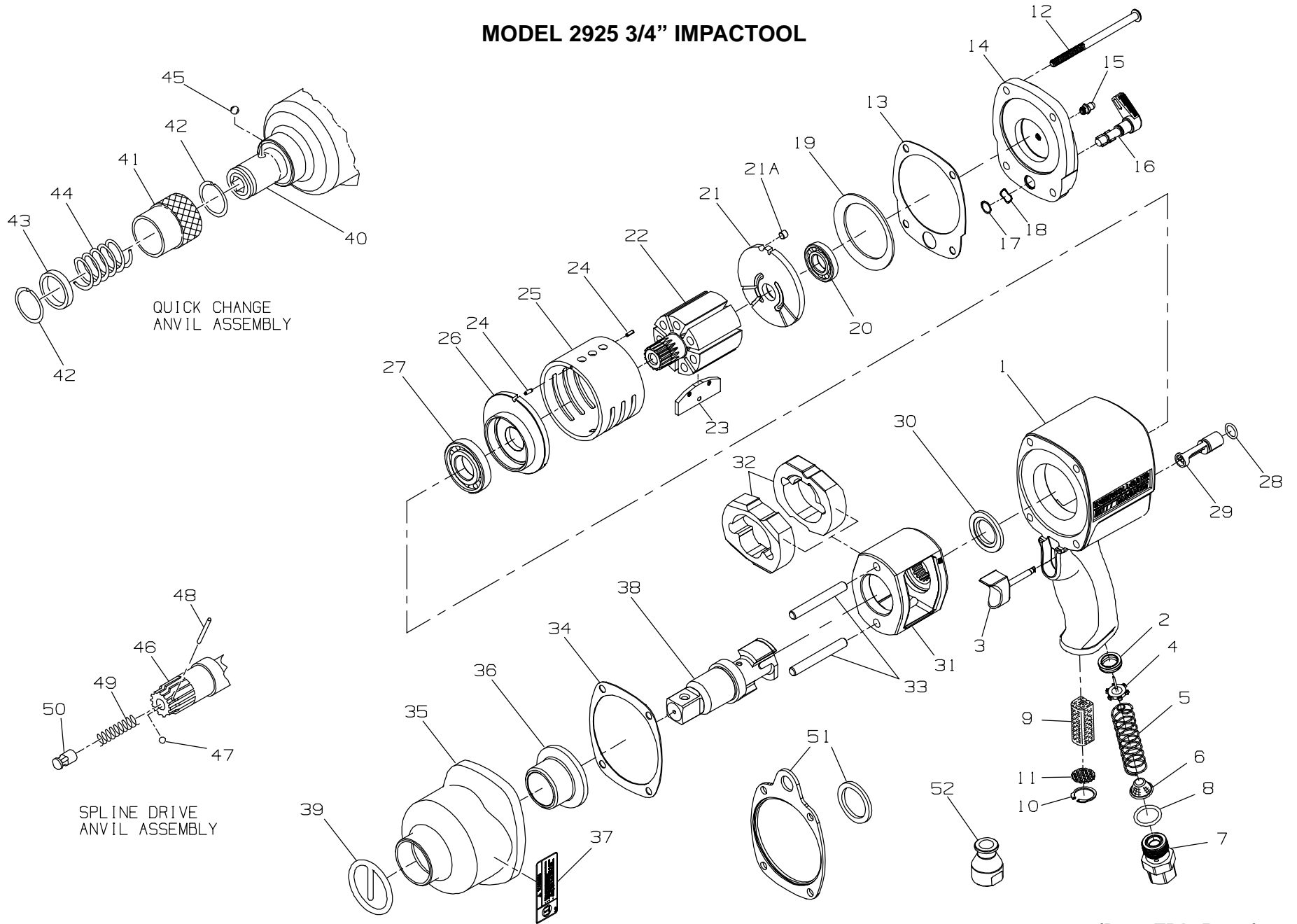
Date

NOTICE

SAVE THESE INSTRUCTIONS. DO NOT DESTROY.

When the life of the tool has expired, it is recommended that the tool be disassembled, degreased and parts be separated by material so that they can be recycled.

MODEL 2925 3/4" IMPACTOOL



(Dwg. TPA1580-1)



PART NUMBER FOR ORDERING →

PART NUMBER FOR ORDERING →

	Motor Housing Assembly	2925-A40	31	Hammer Frame	2925-703
1	Motor Housing	2925-B40	32	Hammer (2)	2925-724
2	Throttle Valve Seat	DG230-303	33	Hammer Pin (2)	2910-704
3	Trigger Assembly	2161-A93	• 34	Hammer Case Gasket	2161-36
4	Throttle Valve	2921-302	35	Hammer Case Assembly	
5	Throttle Valve Spring	2161-51		for 2925 and 2925RB	2161-A727
6	Air Strainer Screen	834-61	36	Hammer Case Bushing	2161-641
7	Inlet Bushing Assembly	2161-A465	37	Warning Label	
8	Inlet Bushing O-ring	AF120-290		for 2925 and 2925RB	WARNING-2-99
9	Muffler Element	202-311	38	Anvil	
10	Retaining Ring	2161-118		3/4" square drive	2910-726
11	Exhaust Deflector	2161-23		1" square drive	2910-826
12	Backcap Bolt (4)	2925-638	39	Socket Retainer	
• 13	Backcap Gasket	2161-739		for 3/4" square drive	RR10034S
	Backcap Assembly	2925-A102		for 1" square drive	RR10015S
14	Backcap	2925-102		Quick-Change Anvil Assembly	2910B-A926-10
15	Grease Fitting	R1-188	40	Quick Change Anvil	2910-926-10
16	Reverse Lever	2925-658	41	Retaining Sleeve	W54-930-10
17	Reverse Lever Snap Ring	2161-28	42	Thrust Ring Lock (2)	W54-933-10
18	Reverse Lever Spring	2161-278	43	Thrust Ring	W54-932-10
19	Motor Clamp Washer	2161-207	44	Retaining Sleeve Spring	W54-931-10
20	Rear Rotor Bearing	4E-510	45	Retaining Ball	8U-722
21	Rear End Plate	2925-12	46	No. 4 Spline Drive Anvil	2910-A526
21A	Locating Pin	2920-74	47	Socket Retaining Ball	G601-65
22	Rotor	2925-53	48	Retaining Ball Plunger	910-230
• 23	Vane Packet (set of 7 Vanes)	2925-42-7	49	Ball Plunger Spring	12SR-262
24	Cylinder Dowel (2)	JC3350-538	50	Plunger Retaining Pin	502B-120
25	Cylinder		51	Hanger Kit	2161-366
	for 2925P1 and 2925P3	2925-3	52	Piped-Away Exhaust (accepts 1/2"-14 NPT	
	for 2925RBP1 and 2925RBP3	2925RB-3		male-fitting)	2161-123
26	Front End Plate	2925-11	*	Grease	
27	Front Rotor Bearing	834-24		1 lb.	170-1LB
• 28	Reverse Valve O-ring	023446		8 lb.	170-8LB
29	Reverse Valve	2161-329			
30	Hammer Frame Washer	2161-706			

* Not illustrated.

- To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (•) for every four tools in service.

MAINTENANCE SECTION

⚠ WARNING

Always wear eye protection when operating or performing maintenance on this tool.

Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.

LUBRICATION

Each time a Series 2925 Impactool is disassembled for maintenance and repair or replacement of parts, lubricate the tool as follows:

1. Work approximately 12 to 15 cc of Ingersoll-Rand No. 170 Grease into the impact mechanism. Coat the Anvil (38, 40 or 46) lightly with grease around the Hammer Case Bushing (36). Inject approximately 2 to 4 cc of grease into the Grease Fitting (4).
2. Use Ingersoll-Rand No. 50 Oil for lubricating the motor. Inject approximately 1 to 2 cc of oil into the air inlet before attaching the air hose.

DISASSEMBLY

General Instructions

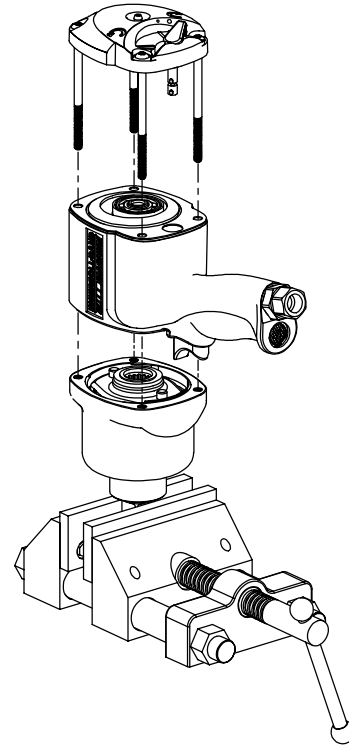
1. Do not disassemble the tool any further than necessary to replace or repair damaged parts.
2. Whenever grasping a tool or a part in a vise, always use leather-covered or copper-covered vise jaws to protect the surface of the part and help prevent distortion. This is particularly true of threaded members and housings.
3. Do not remove any part which is a press fit in or on a subassembly unless the removal of that part is necessary for repair or replacement.
4. Do not disassemble the Impactool unless you have a complete set of new gaskets and o-rings for replacement.

* Registered trademark of Textron.

Disassembly of the Hammer Case and Anvil Assembly

NOTICE

Before disassembling this tool, clamp the anvil drive in leather-covered or copper-covered vise jaws with the Backcap (14) pointing upward. See Drawing TPD1918.



(Dwg. TPD1918)

1. Using a Torx® * Number 27 drive wrench or bit, unscrew and remove the four Backcap Bolts (12).
2. Lift the assembled Motor Housing (1) off of the Hammer Case (35). Make sure that you hold the Backcap in position on the Housing and that the motor does not come out of the Housing.
3. Remove the Hammer Case Gasket (34) and replace with a new one when assembling the Hammer Case to the Housing.

MAINTENANCE SECTION

4. Remove the Hammer Case and impact mechanism assembly from the vise. Remove the Hammer Frame Washer (30) from the rear of the Hammer Frame and set it aside on a clean bench.
5. Place the impact mechanism on a bench with the Anvil (pointing upward. Make sure that the Hammer Pins (33) do not drop out of the Hammer.
6. Lift the Hammer Case off of the Anvil (38 or 46). If it is unnecessary to disassemble the impact mechanism, set it aside intact.

Disassembly of the Quick-Change Anvil

1. Clamp the handle of the tool in leather-covered or copper-covered vise jaws with the Quick-Change Anvil (40) upward.
2. Remove the front Thrust Ring Lock (42) and Thrust Ring (43).

NOTICE

The Retaining Ball (45) will fall free once the Retaining Sleeve (41) is removed.

3. Remove the Retaining Sleeve Spring (44), Retaining Sleeve, Retaining Ball, and the rear Thrust Ring Lock.
4. Remove the four Backcap Bolts (3). While lightly tapping on the end of the Anvil with a plastic hammer, lift off the Hammer Case (35).
5. Remove and discard the Hammer Case Gasket (34).
6. Grasp the Hammer Frame (31) and carefully lift off the entire impact mechanism making certain not to drop the two Hammer Pins (33). If it is necessary to disassemble the impact mechanism, refer to Disassembly of the Impact Mechanism. If it is unnecessary to disassemble the impact mechanism, set it aside intact.
7. Remove the Rear Hammer Frame Washer (30).

Disassembly of the Impact Mechanism

1. Set the mechanism, driver end up, on the workbench.

NOTICE

Note the twin Hammers within the Hammer Frame. These are identical but must be placed in the Hammer Frame in a particular relationship. Using a felt-tipped pen, mark the top Hammer “T↑” and the bottom Hammer “B↑” with the arrows pointing upward. Mark both Hammers on the same end.

2. With the mechanism sitting upright on the workbench, slowly rotate the Anvil in a clockwise direction until it comes up solid.

NOTICE

If you continue to rotate the Anvil, it will cam the Hammers out of engagement. Do not do this; merely rotate the Anvil until it comes up solid.

3. Hold the Hammer Frame firmly and, without disturbing the Hammers, gently lift the Anvil, simultaneously rotating it clockwise about 1/8 of a turn, from the Hammer Frame.
4. With the Anvil removed, lift out the two Hammer Pins.

CAUTION

The twin Hammers are now free to slide from the Hammer Frame. Be careful not to drop them.

Disassembly of the Reverse Valve

1. Using a Torx®* No. 27 drive wrench or bit, remove the four Backcap Bolts (12)
2. Lift the Backcap off of the rear of the Housing.
3. Discard the Backcap Gasket (13) and replace it with a new one when assembling the tool.
4. Use a hooked tool to remove the Reverse Valve (29) from the reverse valve bushing. Set the Reverse Valve aside on a clean bench.
5. Remove and discard the Reverse Valve O-ring (28). Replace it with a new one when assembling the Reverse Valve.
6. Use a flat, thin blade screwdriver to remove the Reverse Lever Retaining Ring (17) and Reverse Lever Spring (18) from the Reverse Lever (16).
7. Remove the Reverse Lever from the Backcap.

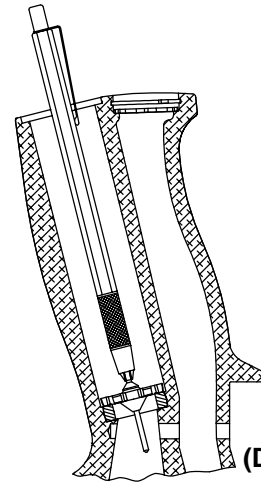
Disassembly of the Motor

1. Using a Torx®* No. 27 drive wrench or bit, remove the four Backcap Bolts.
2. Remove the Backcap, Motor Clamp Washer (19) and Backcap Gasket from the Housing and set them aside on a clean bench. Discard the Backcap Gasket and replace it with a new one when assembling the tool.
3. Lift the Housing from the Hammer Case. Place one hand over the rear of the Housing and turn the Housing over so that the assembled motor can slide and be guide out of the Housing.
4. Place the assembled motor on a clean bench with the rotor spline facing upward.
5. Remove the Front End Plate (26) and Cylinder (25).
6. Remove the Rotor (22) from the Rear End Plate (21).
7. Remove the Vanes from the Rotor.
8. Inspect all motor parts including the Front Rotor Bearing (27) and Rear Rotor Bearing (20) and replace all worn or damaged parts.

MAINTENANCE SECTION

Disassembly of the Throttle Mechanism

1. Unscrew and remove the Air Inlet Bushing (7).
2. Remove the Screen (6), Throttle Valve Spring (5) and Throttle Valve (4).
3. If the Throttle Valve Seat (2) requires replacement, insert a hooked tool through the center of the Valve Seat. Catching the backside of the Seat with the hook, pull the Seat from the Housing.
4. Withdraw the Trigger Assembly (3) from the Housing.
5. Remove the Retaining Ring (10), Exhaust Deflector (11) and Muffler Element (9) from the Housing.



ASSEMBLY

General Instructions

1. Always press on the **inner** ring of a ball-type bearing when installing the bearing on a shaft.
2. Always press on the **outer** ring of a ball-type bearing when pressing the bearing into a bearing recess.
3. Whenever grasping a tool or part in a vise, always use leather-covered or copper-covered vise jaws. Take extra care with threaded parts or housings.
4. Always clean every part and wipe every part with a thin film of oil before installation.
5. Apply a film of O-ring lubricant to all O-rings before final assembly.
6. Check every bearing for roughness. **Sealed or shielded bearings should never be cleaned.** Work grease thoroughly into every open bearing before installation.

Assembly of the Throttle Mechanism

1. Install a new Throttle Valve Seat (2) by pushing it into position in the Housing (1) with a 13/16" dowel.
2. Insert the short end of the stem of the Throttle Valve (4) into the jaws of an expanding-type mechanical pencil. Allow the jaws to retract around the stem to secure it.
3. Install the Throttle Valve on the Valve Seat.
See Dwg. TPD1919

4. As an alternate assembly procedure, drop the Throttle Valve, long stem first, into the inlet passage. If the throttle Valve does not sit squarely on the Throttle valve Seat, shake the Handle until it seats.
5. Install the Throttle Valve Spring (5), small end first, with the inside diameter of the small first coil around the hub of the Throttle Valve.
6. Coat the Inlet Bushing O-ring (8) with O-ring lubricant and install it on the Inlet Bushing (7).
7. Screw the Inlet bushing into the Housing until snug and tighten to 50–55 ft. lbs. (68–75 Nm) torque.
8. Wipe the stem of the Trigger Assembly (3) with light grease and insert the stem of the Trigger into the trigger bore in the Housing until it snaps into place on the Throttle Valve.

Assembly of the Motor

1. Pack the Front Rotor Bearing (27) and Rear Rotor Bearing (20) with the recommended grease. Install the Front Rotor Bearing in the Front End Plate (26) and the Rear Rotor Bearing in the Rear End Plate (21).
2. Slide the assembled Rear End Plate and Rear Rotor Bearing on the hub of the Rotor (22).
3. Set the assembled Rear End Plate and Rotor on a clean surface with the spline of the Rotor pointing upward.
4. Insert the Vanes (23) in the vane slots on the Rotor.
5. Install the Front and Rear Cylinder Dowels (24) in the Cylinder (25).

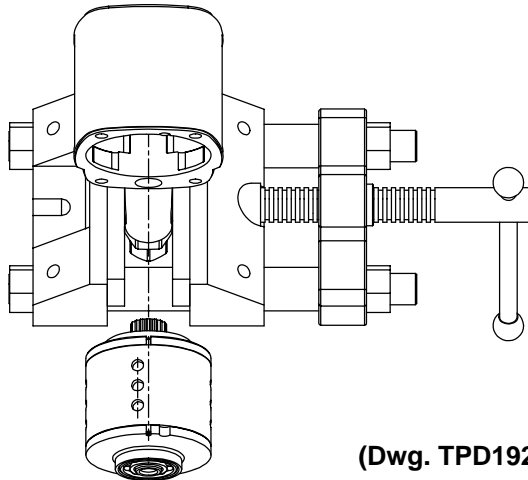
MAINTENANCE SECTION

- Slide the Cylinder over the the Rotor and Vanes making sure that the Rear Cylinder Dowel enters the notch in the in the outside diameter of the Rear End Plate.

For 2925RB

Assemble Cylinder with exhaust ports to the **LEFT** of top dead center (11 o'clock position).

See Dwg. TPD1921.



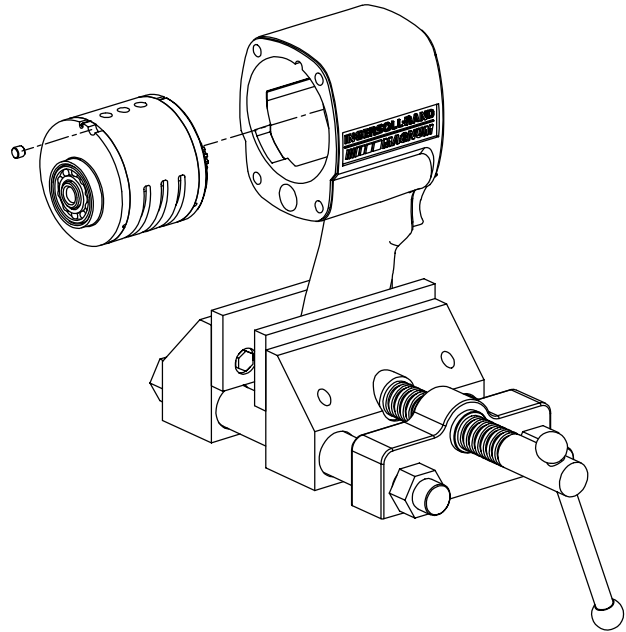
(Dwg. TPD1921)

NOTICE

If more power is needed for forward operation than for reverse operation, install the Cylinder with exhaust ports to the **RIGHT of top dead center (1 o'clock position).**

- Install the assembled Front End Plate and Bearing over the front, splined end of the Rotor making sure that the front Cylinder Dowel fits into the notch in the outside diameter of the Front End Plate.
- Grasp the Housing with one hand and set it upside down on its top. With the other hand, carefully guide the motor assembly into the Housing, making sure that the side of the motor assembly containing the Cylinder Dowels is oriented to the top of the Housing. Install Locating Pin (21A) into Housing and End Plate.

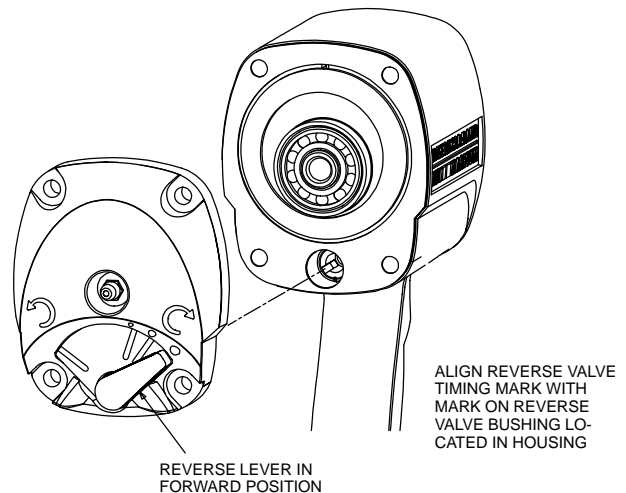
See Dwg. TPD1920-1



(Dwg. TPD1920-1)

Assembly of the Reverse Valve

- Coat a new Reverse Valve O-ring (28) with O-ring lubricant and install it in the groove on the Reverse Valve (29).
- Install the Reverse Valve in the reverse valve bushing with the slotted end trailing, making sure that the the index mark on the Reverse Valve is aligned with the index mark on the Bushing.
See Dwg. TPD1913




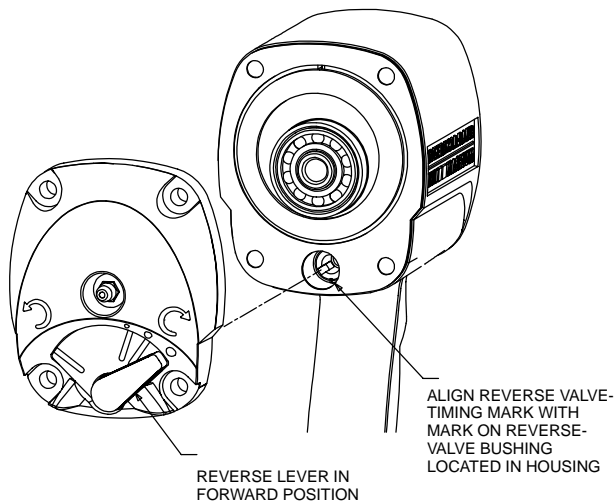
(Dwg. TPD1913)

MAINTENANCE SECTION

NOTICE

The Reverse Valve must be installed and indexed with the bushing as directed in Step 2 and Dwg. TPD1913. Failure to do so will cause improper operation of the Reverse Valve.

3. Insert the Reverse Lever (16) through the rear of the Backcap (14).
4. Slide the Reverse Lever Spring (18) over the shaft of the Reverse Lever and secure the Spring and Reverse Lever by installing the Reverse Lever Snap Ring (17) in the groove in the shaft of the Reverse Lever. Rotate the Reverse Lever so that it is pointing to the symbol for FORWARD (clockwise)  operation. See Dwg. TPD1913

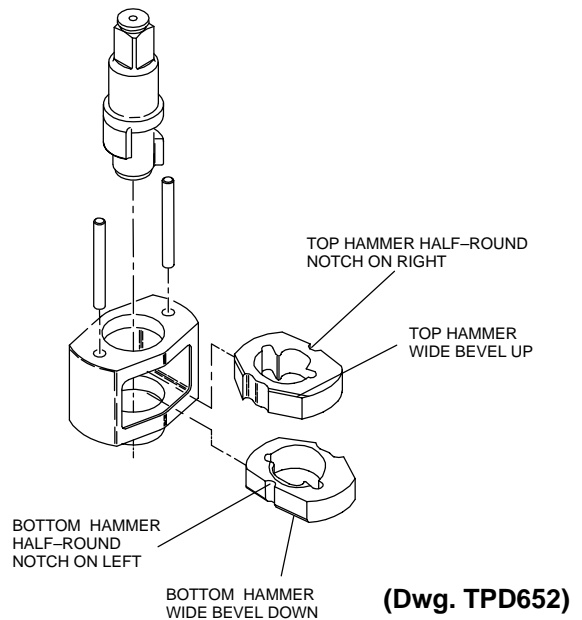


(Dwg. TPD1913)

Assembly of the Impact Mechanism

NOTICE

To ensure proper Reverse Valve operation, the Reverse Lever must stay in this position when installing the Backcap and Reverse Valve.



1. Coat the Hammers (32) with a light film of Ingersoll-Rand No. 170 Grease.
2. Replace the Hammers in the Hammer Frame (31) exactly as they were when you marked them prior to disassembly.

NOTICE

If you are installing new Hammers or want to change the location of the existing Hammers to utilize both impacting surfaces, slide the Hammers in the Hammer Frame so that the half-round notch on one Hammer is located on one side of the Frame and the half-round notch on the other Hammer is located on the other side of the Frame. These Hammers must be installed with the wide bevels facing the web of the Hammer Frame as illustrated.

3. Replace the Hammer Pins (33).
4. Examine the base of the Anvil (38, 40 or 46) and note its contour. While looking down through the Hammer Frame, swing the top Hammer to its full extreme one way or another until you can match the contour of the Anvil. Enter the Anvil into the Hammer Frame and through the first Hammer. Swing the bottom Hammer in the opposite direction from the top Hammer and maneuver the Anvil slightly until it drops into the bottom Hammer.

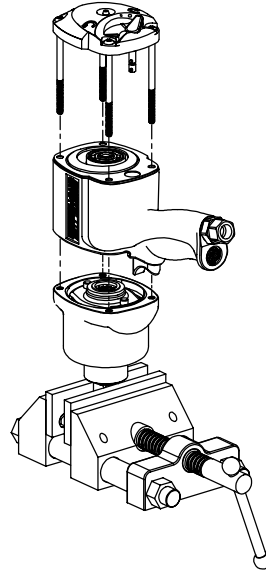
MAINTENANCE SECTION

Assembly of the Square Drive Anvil and Spline Drive Anvil

1. Place the Hammer Frame Washer (30), hub side first, over the hub of the Rotor and against the Front Rotor Bearing.
2. Set the assembled impact mechanism down over the splined hub of the Rotor. If the impact mechanism was disassembled, refer to **Assembly of the Impact Mechanism**.
3. Position the new Hammer Case Gasket (34) on the Housing.
4. Work approximately 12 to 15 cc of Ingersoll–Rand No. 170 Grease into the impact mechanism.
5. Smear a thin film of Ingersoll–Rand No. 170 Grease on the inside surface of the Hammer Case Bushing (36) and place the Hammer Case (35) down over the Anvil and against the Motor Retainer.
6. Install the Backcap Bolts and using a No. 27 Torx drive wrench or bit, tighten them to 10 to 12 ft–lb (13 to 16 Nm) torque.
7. Remove the Impactool from the vise and inject 2 to 4 cc of Ingersoll–Rand No. 170 Grease into the Grease Fitting (15).
9. Slide the Retaining Sleeve (41), Retaining Sleeve Spring (44), Thrust Ring (43), and front Thrust Ring Lock (42) onto the Anvil.
10. Remove the Impactool from the vise and inject 2 to 4 cc of Ingersoll–Rand No. 170 Grease into the Grease Fitting (15).

Assembly of the Tool

1. Wipe a thin film of the recommended grease on the inside of the Hammer Case Bushing (36) and insert the assembled impact mechanism into the Hammer Case (35).
2. Secure the Hammer Case and impact mechanism by the anvil (square drive) end in leather–coverd or copper–covered vise jaws. See Dwg. TPD1918



(Dwg. TPD1918)

Assembly of the Quick–Change Anvil

1. Place the Hammer Frame Washer (30), hub side first, over the hub of the Rotor and against the Front Rotor Bearing.
2. Set the assembled impact mechanism down over the splined hub of the Rotor. If the impact mechanism was disassembled, refer to **Assembly of the Impact Mechanism**.
3. Position the new Hammer Case Gasket (34) on the Housing.
4. Work approximately 12 to 15 cc of Ingersoll–Rand No. 170 Grease into the impact mechanism.
5. Smear a thin film of Ingersoll–Rand No. 170 Grease on the inside surface of the Hammer Case Bushing (36) and place the Hammer Case (35) down over the Anvil and against the Motor Retainer.
6. Install the Backcap Bolts (12) and using a No. 27 Torx* drive wrench or bit, tighten them to 10 to 12 ft–lb (13 to 16 Nm) torque.
7. Reinstall the rear Thrust Ring Lock (41) on the Quick Change Anvil.
8. Place a dab of grease into the hole in the Quick Change Anvil (40) to temporarily hold the Retaining Ball (45).

3. Install a new Hammer Case Gasket (34) on the Hammer Case making sure that the holes in the gasket align with the holes in the Hammer Case.

NOTICE

When installing optional Hanger Kit, place Gasket on the Hammer Case followed by the Hanger.

4. Wipe a small amount of the recommended grease on the flat side of the Hammer Frame Washer (30) and place it on the splined face of the Hammer Frame (31) with the hub end of the washer pointing up.

NOTICE

When installing optional Hanger Kit, place additional washer provided between the Hammer Frame and Hammer Frame Washer.

MAINTENANCE SECTION

5. Set the fully assembled Motor Housing over the opening in the Hammer Case. Insert the spline drive of the Rotor into the splined hole of the impact mechanism. Make sure of the wide section of the Hammer Case is just above the Trigger.
6. Place a new Backcap Gasket (13) over the rear of the Housing making sure that the holes in the Gasket align with the holes in the Housing and that the profile of the Gaskets matches the profile of the Housing.
7. Place a Motor Clamp Washer (19) over the rear of the motor with the convex side up and matching the large outside diameter of the Rear End Plate.
8. Place the Backcap (14) over the back of the Housing making sure that the Reverse Valve Lever (16) is in the full-forward (clockwise) position with the lugs in the Lever engaging the slots in the Reverse Valve. Make sure that the index mark on the Reverse Valve lines up with the index mark on the reverse valve bushing.
9. Install the four Backcap Bolts and using a No. 27 Torx* drive wrench or bit, tighten to 10–12 ft–lbs (13–16 Nm) torque.

MAINTENANCE SECTION

TROUBLESHOOTING GUIDE

Trouble	Probable Cause	Solution
Low power	Dirty Inlet Bushing or Air Strainer Screen and/or Exhaust Silencer	Using a suitable cleaning solution, in a well ventilated area, clean Air Strainer Screen, Inlet Bushing and Exhaust Silencer.
	Worn or broken Vanes	Replace the complete set of Vanes.
	Worn or broken Cylinder and/or scored End Plates	Examine the Cylinder and replace it if it is worn or broken or if the bore is scored or wavy. Replace the End Plates if they are scored.
	Dirty motor parts.	Disassemble tool and clean all parts with a suitable cleaning solution, in a well-ventilated area. Reassemble tool as instructed in this manual.
Motor will not run	Improper positioning of the Reverse Valve Lever or Reverse Valve	Make certain that the Reverse Valve Lever is in the the reverse position or one of the three forward positions. If the tool has been disassembled, refer to Dwg. TPD1913 for proper Reverse Valve and Reverse Lever orientation.
	Incorrect assembly of the motor.	Disassemble the motor, replace worn or broken parts and reassemble as instructed.
Tool will not impact	Insufficient lubricant in the impact mechanism	Remove the Hammer Case Assembly and lubricate the impact mechanism.
	Broken or worn impact mechanism parts	Remove the Hammer Case and examine the impact mechanism parts. Replace any worn or broken parts.
	Impact Mechanism not assembled correctly.	Refer to Assembly of the Impact Mechanism

NOTICE

SAVE THESE INSTRUCTIONS. DO NOT DESTROY.

