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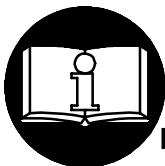
OPERATION AND MAINTENANCE MANUAL FOR MODELS 2934B2SP, 2940B2SP AND 2934B9SP SPARK-RESISTANT SUPER DUTY IMPACTTOOLS

NOTICE

Models 2934B2SP, 2940B2SP and 2934B9SP Impacttools features a non-sparking non-magnesium alloy housing and is ideal for use in coal mines, chemical plants and refineries.

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).
- 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 3/4" (19 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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WARNING LABEL IDENTIFICATION

⚠ WARNING


FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

	⚠ WARNING Always wear eye protection when operating or performing maintenance on this tool.
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	⚠ WARNING Always wear hearing protection when operating this tool.
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	⚠ 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.
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	⚠ 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.
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	⚠ WARNING Do not carry the tool by the hose.
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	⚠ WARNING Do not use damaged, frayed or deteriorated air hoses and fittings.
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	⚠ WARNING Keep body stance balanced and firm. Do not overreach when operating this tool.
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	⚠ WARNING Operate at 90 psig (6.2 bar/ 620 kPa) Maximum air pressure.
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PLACING TOOL IN SERVICE

LUBRICATION

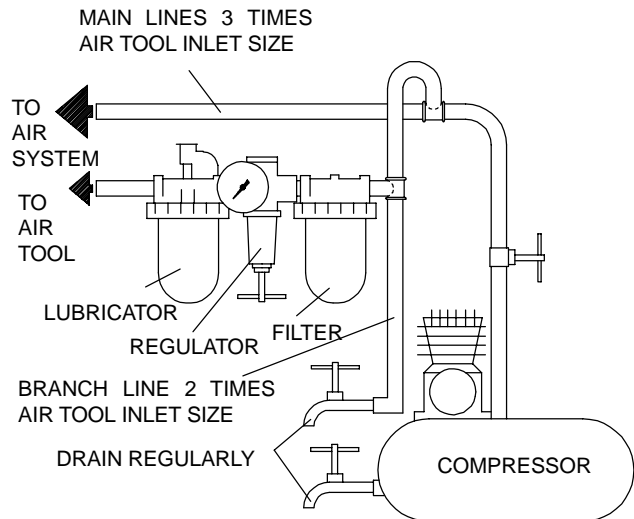


Ingersoll-Rand No. 50 Ingersoll-Rand No. 100

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

For USA – No. C22-04-G00

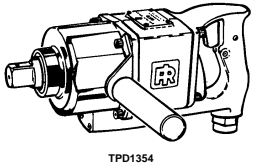
After each forty-eight hours of operation, or as experience indicates, inject about 4 cc of Ingersoll-Rand No. 100 Grease into the Grease Fitting (2).



(Dwg. TPD905-1)

SPECIFICATIONS

Model	Type of Grip	Drive	Impacts per min.
		in.	
2934B2SP	inside trigger	1" sq. dr.	750
2934B9SP	inside trigger	1" sq. dr.	780
2940B2SP	inside trigger	1" sq. dr.	850



TPD1354

MANUEL D'EXPLOITATION ET D'ENTRETIEN DES CLÉS à CHOCS ANTI-ÉTINCELLES MODÈLES 2934B2SP, 2940B2SP ET 2934B9SP SPECIALES MINES

F

NOTE

La clé à chocs Modèle 2934B2SP, 2940B2SP et 2934B9SP est dotée d'un carter anti-étincelles en alliage sans magnésium spécialement conçu pour utilisation dans les mines de charbon, les installations chimiques et les raffineries.

Ingersoll-Rand ne peut être tenu responsable de la modification des outils par le client pour les adapter à des applications qui n'ont pas été approuvées par Ingersoll-Rand.

⚠ ATTENTION



**D'IMPORTANTES INFORMATIONS DE SECURITÉ SONT JOINTES.
LIRE CE MANUEL AVANT D'UTILISER L'OUTIL.
L'EMPLOYEUR EST TENU À COMMUNIQUER LES INFORMATIONS
DE CE MANUEL AUX EMPLOYÉS UTILISANT CET OUTIL.**

LE NON RESPECT DES AVERTISSEMENTS SUIVANTS PEUT CAUSER DES BLESSURES

MISE EN SERVICE DE L'OUTIL

- Toujours exploiter, inspecter et entretenir cet outil conformément au Code de sécurité des outils pneumatiques portatifs de l'American National Standards Institute (ANSI B186.1).
- Pour la sécurité, les performances optimales et la durabilité maximale des pièces, cet outil doit être connecté à une alimentation d'air comprimé de 6,2 bar (620 kPa) maximum à l'entrée, avec un flexible de 19 mm de diamètre intérieur.
- Couper toujours l'alimentation d'air comprimé et débrancher le flexible d'alimentation avant d'installer, déposer ou ajuster tout accessoire sur cet outil, ou d'entreprendre une opération d'entretien quelconque sur l'outil.
- Ne pas utiliser des flexibles ou des raccords endommagés, effilochés ou détériorés.
- S'assurer que tous les flexibles et les raccords sont correctement dimensionnés et bien serrés. Voir Plan TPD905-1 pour un exemple type d'agencement des tuyauteries.
- Utiliser toujours de l'air sec et propre à une pression maximum de 6,2 bar. La poussière, les fumées corrosives et/ou une humidité excessive peuvent endommager le moteur d'un outil pneumatique.
- Ne jamais lubrifier les outils avec des liquides inflammables ou volatils tels que le kérosène, le gasol ou le carburant d'aviation.
- Ne retirer aucune étiquette. Remplacer toute étiquette endommagée.

UTILISATION DE L'OUTIL

- Porter toujours des lunettes de protection pendant l'utilisation et l'entretien de cet outil.
- Porter toujours une protection acoustique pendant l'utilisation de cet outil.

- Tenir les mains, les vêtements flous et les cheveux longs, éloignés de l'extrémité rotative de l'outil.
- Noter la position du levier d'inversion avant de mettre l'outil en marche de manière à savoir dans quel sens il va tourner lorsque la commande est actionnée.
- Prévoir, et ne pas oublier, que tout outil motorisé est susceptible d'à-coups brusques lors de sa mise en marche et pendant son utilisation.
- Garder une position équilibrée et ferme. Ne pas se pencher trop en avant pendant l'utilisation de cet outil. Des couples de réaction élevés peuvent se produire à, ou en dessous, de la pression d'air recommandée.
- La rotation des accessoires de l'outil peut continuer pendant un certain temps après le relâchement de la gâchette.
- Les outils pneumatiques peuvent vibrer pendant l'exploitation. Les vibrations, les mouvements répétitifs et les positions inconfortables peuvent causer des douleurs dans les mains et les bras. N'utiliser plus d'outils en cas d'inconfort, de picotements ou de douleurs. Consulter un médecin avant de recommencer à utiliser l'outil.
- Utiliser les accessoires recommandés par Ingersoll-Rand.
- N'utiliser que les douilles et les accessoires pour clés à chocs. Ne pas utiliser les douilles et accessoires (chromés) de clés manuelles.
- Les clés à chocs ne sont pas des appareils dynamométriques. Les connexions nécessitant un couple de serrage spécifique doivent être vérifiées avec un mesureur de couple après avoir été assemblées avec un clé à chocs.
- Cet outil n'est pas conçu pour fonctionner dans des atmosphères explosives.
- Cet outil n'est pas isolé contre les chocs électriques.

NOTE

L'utilisation de rechanges autres que les pièces d'origine Ingersoll-Rand peut causer des risques d'insécurité, réduire les performances de l'outil et augmenter l'entretien, et peut annuler toutes les garanties.

Les réparations ne doivent être effectuées que par des réparateurs qualifiés et autorisés. Consultez votre Centre de Service Ingersoll-Rand le plus proche.

Adressez toutes vos communications au Bureau Ingersoll-Rand ou distributeur le plus proche.

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SIGNIFICATION DES ÉTIQUETTES D'AVERTISSEMENT

ATTENTION

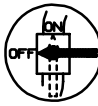
LE NON RESPECT DES AVERTISSEMENTS SUIVANTS PEUT CAUSER DES BLESSURES




ATTENTION
Porter toujours des lunettes de protection pendant l'utilisation et l'entretien de cet outil.



ATTENTION
Porter toujours une protection acoustique pendant l'utilisation de cet outil.




ATTENTION
Couper toujours l'alimentation d'air comprimé et débrancher le flexible d'alimentation avant d'installer, déposer ou ajuster tout accessoire sur cet outil, ou d'entreprendre une opération d'entretien quelconque sur l'outil.



ATTENTION
Les outils pneumatiques peuvent vibrer pendant l'exploitation. Les vibrations, les mouvements répétitifs et les positions inconfortables peuvent causer des douleurs dans les mains et les bras. N'utiliser plus d'outils en cas d'inconfort, de picotements ou de douleurs. Consulter un médecin avant de recommencer à utiliser l'outil.




ATTENTION
Ne pas transporter l'outil par son flexible.



ATTENTION
Ne pas utiliser des flexibles ou des raccords endommagés, effilochés ou détériorés.



ATTENTION
Garder une position équilibrée et ferme. Ne pas se pencher trop en avant pendant l'utilisation de cet outil.



ATTENTION
Utiliser de l'air comprimé à une pression maximum de 6,2 bar (620 kPa).

MISE EN SERVICE DE L'OUTIL

LUBRIFICATION



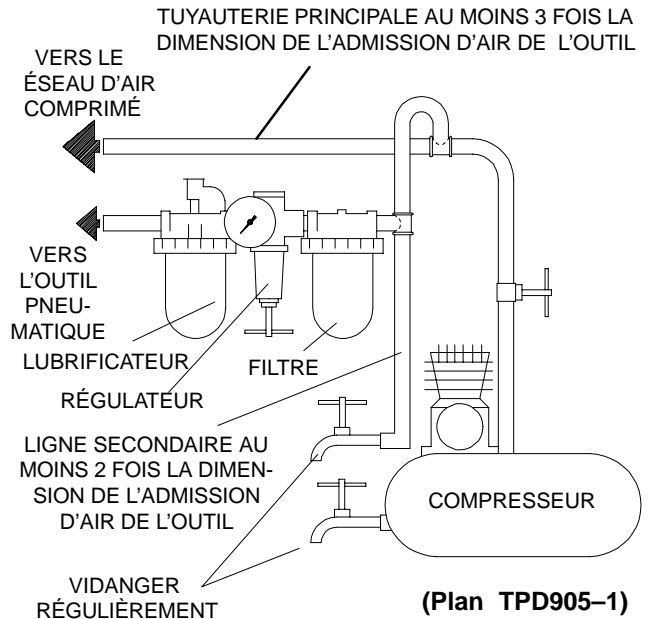
Ingersoll-Rand No 50

Ingersoll-Rand No. 100

Utiliser toujours un lubrificateur. Nous recommandons l'emploi du filtre-régulateur-lubrificateur suivant :

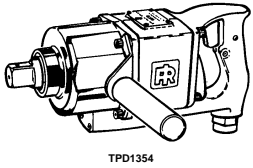
USA – No. C22-04-G00

Toutes les quarante-huit heures de fonctionnement, ou en fonction de l'expérience, injecter environ 4 cm³ de graisse Ingersoll-Rand No. 100 dans le raccord de graissage.



SPÉCIFICATIONS

Modèle	Type de poignée	Entraînement	Coups par minute
		in.	
2934B2SP	gâchette intérieure	1" entr. carré	750
2934B9SP	gâchette intérieure	1" entr. carré	780
2940B2SP	gâchette intérieure	1" entr. carré	850



MANUAL DE FUNCIONAMIENTO Y MANTENIMIENTO PARA LLAVES DE IMPACTO INDUSTRIALES MODELOS 2934B2SP, 2940B2SP Y 2934B9SP

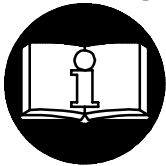
E

NOTA

La Llave de Impacto Modelo 2934B2SP, 2940B2SP y 2934B9SP incorpora una carcasa de aleación sin magnesio antichispa y es ideal para usar en minas de carbón, plantas químicas y refinerías.

Ingersoll-Rand no aceptará responsabilidad alguna por la modificación de las herramientas efectuada por el cliente para las aplicaciones que no hayan sido consultadas con Ingersoll-Rand.

⚠ AVISO



**SE ADJUNTA INFORMACION IMPORTANTE DE SEGURIDAD.
LEA ESTE MANUAL ANTES DE USAR LA HERRAMIENTA.
ES RESPONSABILIDAD DE LA EMPRESA ASEGURARSE DE QUE EL OPERARIO
ESTE AL TANTO DE LA INFORMACION QUE CONTIENE ESTE MANUAL.
EL HACER CASO OMISO DE LOS AVISOS SIGUIENTES PODRIA OCASIONAR LESIONES.**

PARA PONER LA HERRAMIENTA EN SERVICIO

- Utilice, examine y mantenga siempre esta herramienta conforme al código de seguridad para herramientas neumáticas portátiles de la American National Standards Institute (ANSI B186.1).
- Para seguridad, máximo rendimiento y durabilidad de piezas, use esta herramienta a una máxima presión de aire de 90 psig (6,2 bar/620kPa) en la admisión de manguera de suministro de aire de diámetro interno de 19 mm.
- Corte siempre el suministro de aire y desconecte la manguera de suministro de aire antes de instalar, desmontar o ajustar cualquier accesorio de esta herramienta, o antes de realizar cualquier operación de mantenimiento de la misma.
- No utilice mangueras de aire y accesorios dañados, desgastados ni deteriorados.
- Asegúrese de que todas las mangueras y los accesorios sean del tamaño correcto y estén bien apretados. Vea Esq. TPD905-1 para un típico arreglo de tuberías.
- Use siempre aire limpio y seco a una máxima presión de 90 psig. El polvo, los gases corrosivos y/o el exceso de humedad podrían estropear el motor de una herramienta neumática.
- No lubrique las herramientas con líquidos inflamables o volátiles tales como queroseno, gasoil o combustible para motores a reacción.
- No saque ninguna etiqueta. Sustituya toda etiqueta dañada.

USO DE HERRAMIENTA

- Use siempre protección ocular cuando utilice esta herramienta o realice operaciones de mantenimiento en la misma.

- Use siempre protección para los oídos cuando utilice esta herramienta.
- Mantenga las manos, la ropa suelta y el cabello largo alejados del extremo giratorio de la herramienta.
- Note la posición de la palanca de inversión antes de funcionar la herramienta para estar consciente de su dirección giratoria cuando funcione el estrangulador.
- Anticipe y esté alerta a los cambios repentinos en el movimiento durante la puesta en marcha y el manejo de toda herramienta motorizada.
- Mantenga una postura de cuerpo equilibrada y firme. No estire demasiado los brazos al manejar la herramienta. Pueden ocurrir reacciones de alto par a, o menos de, la recomendada presión de aire.
- El eje de la herramienta podría seguir girando brevemente después de haber soltado la palanca de estrangulación.
- Las herramientas neumáticas pueden vibrar durante el uso. La vibración, repetición o posiciones incómodas pueden dañarle los brazos y manos. En caso de incomodidad, sensación de hormigueo o dolor, deje de usar la herramienta. Consulte a un médico antes de volver a usarla otra vez.
- Utilice únicamente los accesorios Ingersoll-Rand recomendados.
- Utilice únicamente bocas y accesorios para llaves de impacto. No utilice bocas o accesorios manuales (cromados).
- Las llaves de impacto no son llaves de par. Las uniones que requieran pares específicos deberán ser comprobadas con un torsiómetro después de haberlas fijado con una llave de impacto.
- Esta herramienta no ha sido diseñada para trabajar en ambientes explosivos.
- Esta herramienta no está aislada contra descargas eléctricas.

NOTA

El uso de piezas de recambio que no sean las auténticas piezas Ingersoll-Rand podría poner en peligro la seguridad, reducir el rendimiento de la herramienta y aumentar los cuidados de mantenimiento necesarios, así como invalidar toda garantía.

Las reparaciones sólo serán realizadas por personal cualificado y autorizado. Consulte con el centro de servicio Ingersoll-Rand autorizado más próximo.

Toda comunicación se deberá dirigir a la oficina o al distribuidor Ingersoll-Rand más próximo.

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ETIQUETAS DE AVISO

⚠ AVISO

EL HACER CASO OMISO DE LOS AVISOS SIGUIENTES PODRIA OCASIONAR LESIONES.




⚠ ADVERTENCIA
Use siempre protección ocular cuando utilice esta herramienta o realice operaciones de mantenimiento en la misma.




⚠ ADVERTENCIA
Use siempre protección para los oídos cuando utilice esta herramienta.



⚠ ADVERTENCIA
Cortar siempre el suministro de aire y desconectar la manguera de suministro de aire antes de instalar, retirar o ajustar cualquier accesorio de esta herramienta, o antes de realizar cualquier operación de mantenimiento de la misma.



⚠ ADVERTENCIA
Las herramientas neumáticas pueden vibrar durante el uso. La vibración, los movimientos repetitivos o las posiciones incómodas podrían dañarle los brazos y las manos. En caso de incomodidad, sensación de hormigueo o dolor, dejar de usar la herramienta. Consultar al médico antes de volver a utilizarla.




⚠ ADVERTENCIA
No coger la herramienta por la manguera para levantarla.



⚠ ADVERTENCIA
No utilizar mangueras de aire y accesorios dañados, desgastados ni deteriorados.



⚠ ADVERTENCIA
Mantener una postura del cuerpo equilibrada y firme. No estirar demasiado los brazos al manejar la herramienta.



⚠ ADVERTENCIA
Manejar la herramienta a una presión de aire máxima de 90 psig (6,2 bar/620 kPa).

PARA PONER LA HERRAMIENTA EN SERVICIO

LUBRICACION



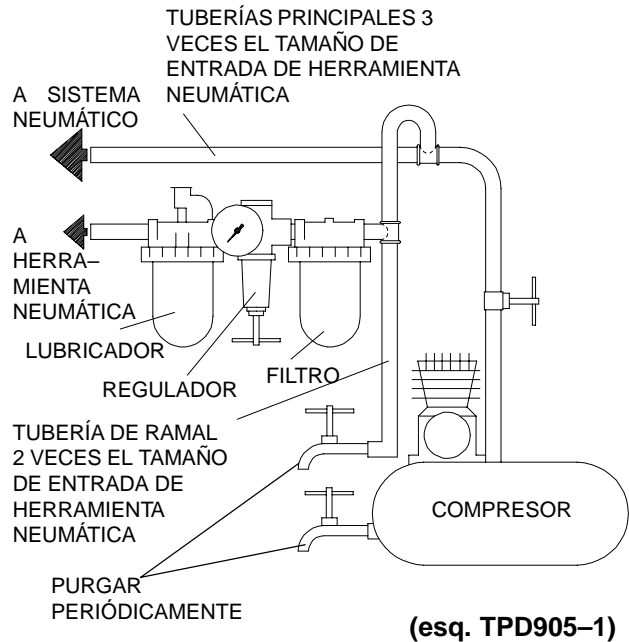
Ingersoll-Rand N° 50

Ingersoll-Rand N° 100

Utilice siempre un lubricante de aire comprimido. Recomendamos la siguiente unidad de Filtro-Lubricador-Regulador:

USA - N°. C22-04-G00

Después de cada cuarenta y ocho horas de funcionamiento o según indique la experiencia, inyecte unos 4 cc de Grasa Ingersoll-Rand N° 100 en el Engrasador.



ESPECIFICACIONES

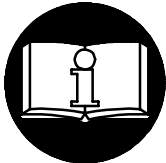
Modelo	Tipo de Empuñadura	Accionamiento	Impactos por minuto
		pulg.	
2934B2SP	gatillo interno	1" cuadradillo	750
2934B9SP	gatillo interno	1" cuadradillo	780
2940B2SP	gatillo interno	1" cuadradillo	850

MANUAL DE FUNCIONAMENTO E MANUTENÇÃO PARA FERRAMENTAS PNEUMÁTICAS DE IMPACTO PARA TRABALHOS SUPER, ANTI-CHISPA MODELOS 2934B2SP, 2940B2SP E 2934B9SP

P

AVISO

Os Modelos 2934B2SP, 2940B2SP e 2934B9SP de Ferramentas Pneumáticas de Impacto são concebidos para uso em montagens industriais, manutenção de maquinaria, manutenção de ferrovias, aplicações de flange de tubos e válvulas e instalação de parafusos de madeira. A Ingersoll-Rand não é responsável por modificações, feitas pelo cliente em ferramentas, nas quais a Ingersoll-Rand não tenha sido consultada.



⚠️ ADVERTÊNCIA

**INFORMAÇÃO DE SEGURANÇA IMPORTANTE EM ANEXO.
LEIA ESTE MANUAL ANTES DE OPERAR A FERRAMENTA.
É DA RESPONSABILIDADE DO EMPREGADOR COLOCAR
A INFORMAÇÃO DESTE MANUAL NAS MÃOS DO OPERADOR.**

O NÃO CUMPRIMENTO DAS SEGUINTES ADVERTÊNCIAS PODE RESULTAR EM FERIMENTOS.

COLOCANDO A FERRAMENTA EM FUNCIONAMENTO

- Sempre opere, inspecione e mantenha esta ferramenta de acordo com o Código de Segurança do Instituto Americano de Padrões Nacionais para Ferramentas Pneumáticas Portáteis (ANSI B186.1).
- Para segurança, máximo desempenho e máxima durabilidade das peças, opere esta ferramenta com uma pressão de ar máxima de 6,2 bar/620 kPa (90 psig) na entrada da mangueira de alimentação de ar com diâmetro interno de 19 mm (3/4").
- Desligue sempre a alimentação de ar e desconecte a mangueira de alimentação de ar antes de instalar, remover ou ajustar qualquer acessório nesta ferramenta, ou antes de executar qualquer serviço de manutenção nesta ferramenta.
- Não use mangueiras de ar ou adaptadores danificados, gastos ou deteriorados.
- Certifique-se de que todas as mangueiras e adaptadores sejam do tamanho correcto e estejam apertados com firmeza. Veja o Desenho TPD905-1 para um arranjo típico de tubagem.
- Use sempre ar seco e limpo com pressão máxima de 90 psig. Pó, fumos corrosivos e/ou humidade excessiva podem arruinar o motor de uma ferramenta pneumática.
- Não lubrifique as ferramentas com líquidos inflamáveis ou voláteis tais como querosene, diesel ou combustível de jactos.
- Não remova nenhum rótulo. Reponha qualquer rótulo danificado.

USANDO A FERRAMENTA

- Use sempre óculos de protecção quando estiver operando ou executando serviço de manutenção nesta ferramenta.
- Use sempre protecção contra ruído ao operar esta ferramenta.

- Mantenha as mãos, partes do vestuário soltas e cabelos compridos afastados da extremidade em rotação.
- Observe qual é a posição da alavanca que reverte o sentido de rotação antes de operar esta ferramenta de modo a estar atento ao sentido de rotação quando operar o regulador de pressão.
- Antecipe e esteja alerta a mudanças repentinas no movimento quando ligar e operar qualquer ferramenta motorizada.
- Mantenha a posição do corpo equilibrada e firme. Não exagere quando operar esta ferramenta. Torques de reacção elevados podem ocorrer na ou abaixo da pressão de ar recomendada.
- O eixo da ferramenta pode continuar a girar brevemente após a pressão tenha sido aliviada.
- Ferramentas accionadas pneumáticamente podem vibrar em uso. Vibração, movimentos repetitivos ou posições desconfortáveis podem ser prejudiciais às mãos e aos braços. Pare de usar a ferramenta caso ocorra algum desconforto, sensação de formigamento ou dor. Procure assistência médica antes de retornar ao trabalho.
- Use acessórios recomendados pela Ingersoll-Rand.
- Use somente soquetes e acessórios de impacto. Não use soquetes ou acessórios de mão (cromo).
- Ferramentas Pneumáticas de impacto não são chaves dinamométricas de torque. As conexões que requerem um torque específico devem ser verificadas com um torquímetro depois de adaptadas a uma chave dinamométrica de impacto.
- Esta ferramenta não é concebida para funcionar em atmosferas explosivas.
- Esta Ferramenta não está isolada contra choques eléctricos.

AVISO

O uso de peças de substituição que não sejam genuinamente da Ingersoll-Rand podem resultar em riscos de segurança, diminuição do desempenho da ferramenta, aumento da necessidade de manutenção e pode invalidar todas as garantias.

As reparações devem ser feitas somente por pessoal treinado autorizado. Consulte o Centro de Serviços da Ingersoll-Rand mais próximo.

Envie Todos os Comunicados Para o Distribuidor ou Escritório da Ingersoll-Rand Mais Próximo.

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PROFESSIONAL TOOLS


IDENTIFICAÇÃO DO RÓTULO DE ADVERTÊNCIA

⚠️ ADVERTÊNCIA

O NÃO CUMPRIMENTO DAS SEGUINTES ADVERTÊNCIAS PODE RESULTAR EM FERIMENTO.




⚠️ ADVERTÊNCIA
Use sempre óculos de protecção quando estiver operando ou executando algum serviço de manutenção nesta ferramenta.




⚠️ ADVERTÊNCIA
Use sempre protecção contra o ruído ao operar esta ferramenta.




⚠️ ADVERTÊNCIA
Desligue sempre a alimentação de ar e desconecte a mangueira de alimentação de ar antes de instalar, remover ou ajustar qualquer acessório nesta ferramenta, ou antes de executar algum serviço de manutenção nesta ferramenta.




⚠️ ADVERTÊNCIA
Ferramentas accionadas pneumáticamente podem vibrar em uso. Vibração, movimentos repetitivos ou posições desconfortáveis podem ser prejudiciais às mãos e aos braços. Pare de usar a ferramenta caso ocorra algum desconforto, sensação de formigamento ou dor. Procure assistência médica antes de retornar ao trabalho.




⚠️ ADVERTÊNCIA
Não carregue a ferramenta segurando na mangueira.



⚠️ ADVERTÊNCIA
Não use mangueiras de ar ou adaptadores danificados, gastos ou deteriorados.



⚠️ ADVERTÊNCIA
Mantenha a posição do corpo equilibrada e firme. Não exagere quando operar esta ferramenta. Torques de reacção elevados podem ocorrer sob a pressão de ar recomendada.



⚠️ ADVERTÊNCIA
Opere com pressão do ar Máxima de 90-100 psig(6,2-6,9bar).

COLOCANDO A FERRAMENTA EM FUNCIONAMENTO

LUBRIFICAÇÃO



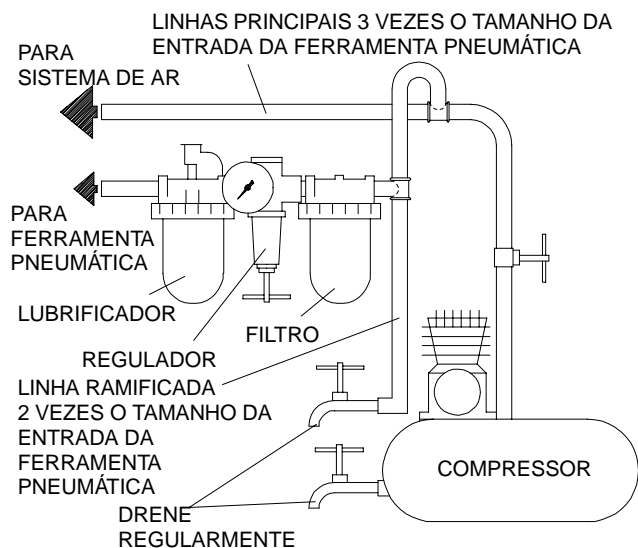
Ingersoll-Rand No. 50

Ingersoll-Rand No. 100

Use sempre um lubrificador de ar de linha com estas ferramentas. Nós recomendamos a seguinte Unidade Filtro-Lubrificador-Regulador :

Para USA – No. C22-04-G00

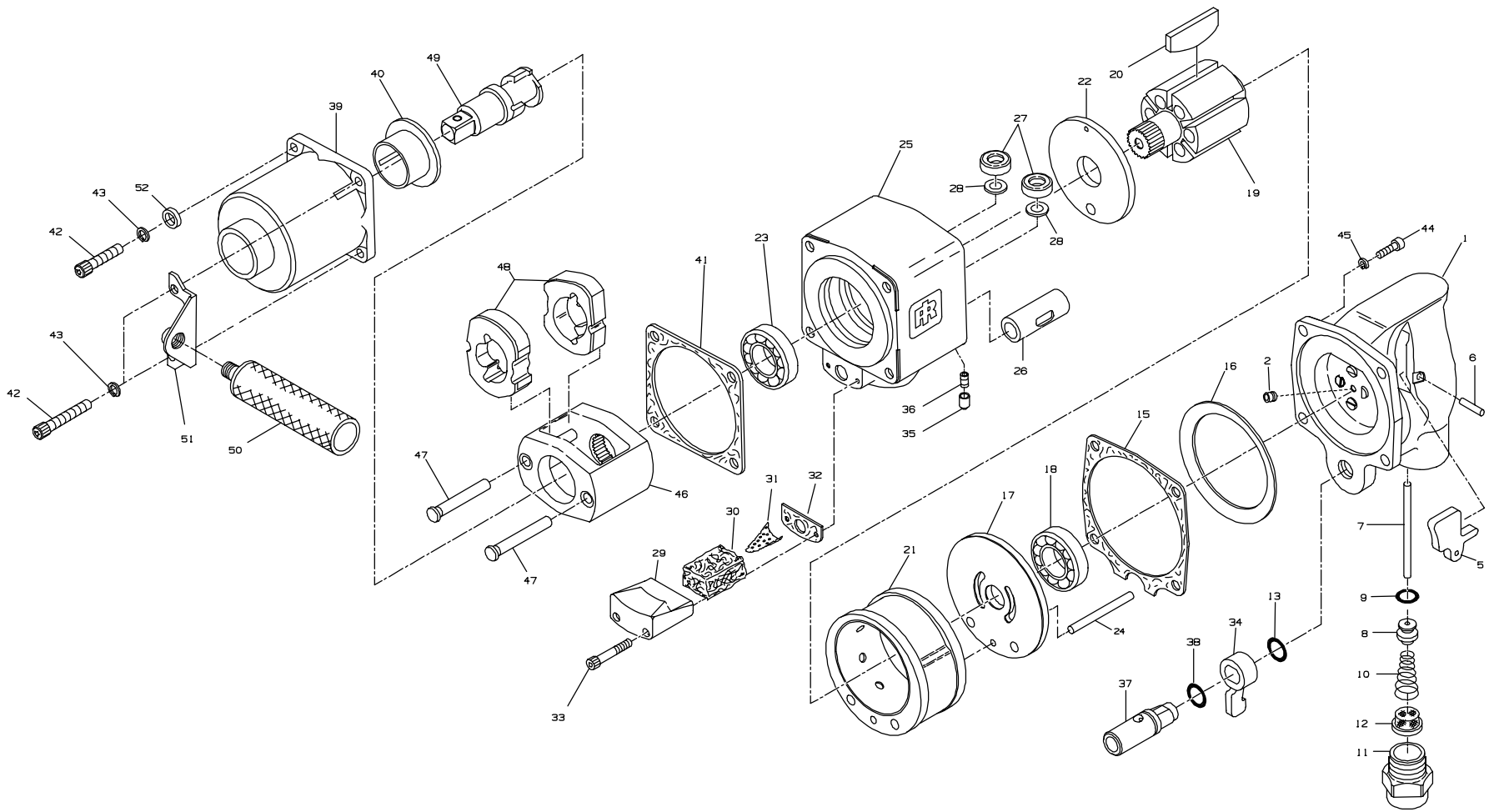
Depois de cada 48 horas de operação, ou conforme a experiência indica, injecte aproximadamente 4 cc de Massa Lubrificante Ingersoll-Rand No. 100 no Adaptador de Massa Lubrificante.



(Desenho TPD905-1)

ESPECIFICAÇÕES

Model	Tipo de Punho	Encabadouro Quadrado	Impactos por min.
		pol.	
2934B2SP	gatilho interior	1	750
2934B9SP	gatilho interior	1	780
2940B2SP	gatilho interior	1	850



MAINTENANCE SECTION

(Dwg. TPA1249-2)



PART NUMBER FOR ORDERING

PART NUMBER FOR ORDERING

1	Inside Trigger Handle Assembly	2934SP-A92A	25	Motor Housing Assembly	
2	Grease Fitting	130SR-188		for 2934	2934SP-A40A
5	Inside Trigger	2934SP-93		for 2940	2940SP-A40A
6	Inside Trigger Pin	508-437	26	Reverse Valve Bushing	2934-330S
7	Throttle Valve Plunger	2934-302	• 27	Air Port Gasket (2)	R44H-210A
8	Throttle Valve Assembly	2934-A50	28	Air Port Gasket Retainer (2)	2940-200
• 9	Throttle Valve Face	2934-159	29	Exhaust Deflector	2934-23A
10	Throttle Valve Spring	834-51	30	Exhaust Silencer	2940P-311
11	Straight Inlet	2934SP-565	31	Exhaust Baffle	2934-124
• 12	Air Strainer Screen	834-61	32	Exhaust Gasket	2934-223
• 13	Reverse Valve Seal	R00BR-210	33	Deflector Screw (2)	R43F-104
• 15	Handle Gasket	2934-283	*	Nameplate	
16	Motor Clamp Washer	2934-207		for 2934	2934SP-301
17	Rear End Plate	2934-12		for 2940	2940SP-301
18	Rear Rotor Bearing	508-97	*	Nameplate Screw (4)	C32-302
19	Rotor		34	Reverse Lever	2934-658A
	for 2934	2934-53	35	Reverse Lock Plunger	4U-663B
	for 2940	2940-53	36	Reverse Lock Plunger Spring	4U-664
• 20	Vane Packet (set of 6 Vanes)		37	Reverse Valve Assembly	2934-A329
	for 2934	2934-42-6	• 38	Reverse Valve Bushing Seal	85H-167
	for 2940	2940-42-6	39	Hammer Case Assembly	
21	Cylinder			for 2934	2934-A727
	for 2934	2934-3		for 2940	2940-A727
	for 2940	2940-3	40	Hammer Case Bushing	2934-641
22	Front End Plate	2934-11	*	Hammer Case Label	EU-99
23	Front Rotor Bearing	810-97			
24	Cylinder Dowel				
	for 2934	2934-98			
	for 2940	2940-98			

MAINTENANCE SECTION

* 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.

PART NUMBER FOR ORDERING



PART NUMBER FOR ORDERING



• 41	Hammer Case Gasket	2934-36	49	1" Square Drive Anvil	
42	Hammer Case Cap Screw (4)	834-638		for 2934	2934-726
43	Hammer Case Cap Screw			for 2940	2940-726
	Lock Washer (4)	34U-58	*	Socket Retainer	RR10015S
44	Handle Cap Screw (4)	510-638	50	Dead Handle	834-48
45	Handle Cap Screw Lock Washer (4)	8U-58	51	Dead Handle Bracket	2934-364
46	Hammer Frame Assembly		52	Dead Handle Bracket Spacer (2)	2934-140
	for 2934	2934-A703	*	Side Spade Handle (for Model 2934B9SP)	T15-41
	for 2940	2940-A703	*	Side Spade Handle Stud (for Model 2934B9SP) .	534-448
47	Hammer Pin (2)		*	Side Spade Handle Stud Nut	
	for 2934	2934-704		(for Model 2934B9SP)	107-73A
	for 2940	2940-704			
48	Hammer (2)				
	for 2934	2934-724			
	for 2940	2940-724			

* Not illustrated.

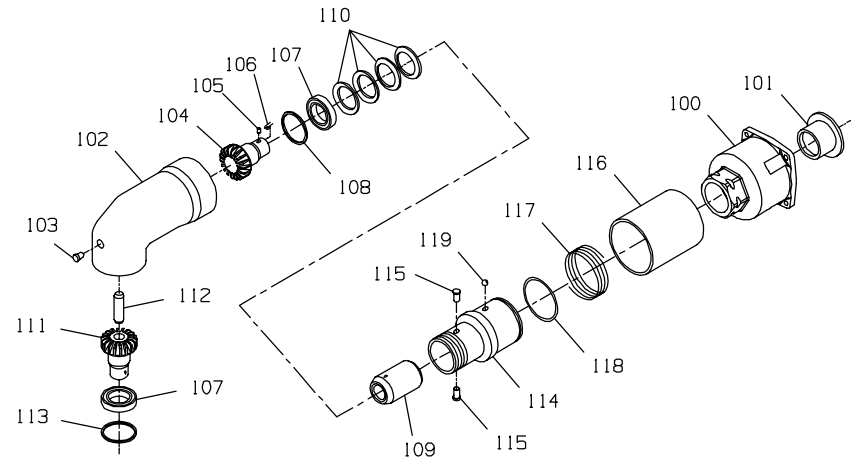
- To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (•) for every four tools in service.

The 2934B2SP Impactool can be furnished with a 1" square drive 2934A90 Angle Attachment and when so furnished is designated as 2934B9SP. Following are the parts used only in the 2934B9SP. All parts not listed are the same as for a 2934B2SP Impactool with Inside Trigger Handle, Side Spade Handle and a 1" square drive standard length Anvil.

NO. 2934A90 ANGLE ATTACHMENT

PART NUMBER FOR ORDERING →

100	Hammer Case Assembly	2934-A827
101	Hammer Case Bushing	2934-641
*	Hammer Case Label	WARNING-2-99
	Angle Attachment Assembly	2934A90
102	Angle Housing Assembly	436A90-A600
103	Grease Fitting	130SR-188
104	Bevel Pinion Assembly	436A90-A602
105	Retainer Plunger	8U-715
106	Retainer Plunger Spring	5UHD-718
107	Bevel Pinion Bearing or Bevel Gear Bearing (2) ..	436A90-593
108	Bevel Pinion Spacer	436A90-608
109	Bevel Pinion Driver	2934A90-563
110	Bevel Pinion Clamp Washer (4)	808-207
111	Bevel Gear	436A90-601
112	Bevel Gear Spindle	436A90-607
113	Bevel Gear Bearing Retainer	436A90-632
114	Angle Housing Connector	436A90-680
115	Connector Lock Pin (2)	436A90-609
116	Connector Retaining Sleeve	436A90-681
117	Retaining Sleeve Spring	436A90-682
118	Connector Retaining Sleeve Stop	3BM-303
119	Connector Retaining Ball (3)	8U-722
*	Socket Retainer	RR10015S



(Dwg. TPC357)

MAINTENANCE SECTION

* Not illustrated.

MAINTENANCE SECTION

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. Failure to do so could result in injury.

General Instructions

LUBRICATION

Each time a Model 2934B2SP, 2934B9SP or 2940B2SP 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. 100 Grease into the impact mechanism. Coat the Anvil (49) lightly with grease. Also, coat the inside of the Hammer Case Bushing (40) with grease. Inject approximately 2 to 4 cc of grease into the Grease Fitting (2).
2. Use Ingersoll-Rand No. 50 Oil for lubricating the motor. Inject approximately 1 to 2 cc of oil into the Straight Inlet (11) before attaching the air hose. Remove the Oil Chamber Plug (14) and fill the oil chamber. To avoid repeated filling of the built-in lubricator, we recommend installing a larger capacity air line lubricator as close to the tool as practical. Where the lubricator cannot be permanently mounted, we recommend using an Ingersoll-Rand No. 3LUB8 Lubricator. For permanent installation, we recommend using an Ingersoll-Rand C22-04-G00 Filter-Lubricator-Regulator Unit. These units have 1/2" inlet and outlet. The 3LUB8 has 1/6 pt (79 mL) capacity; the C22-04-G00 has 1/2 pt (237 mL) capacity. Larger capacity units may be used, but do not use a unit having less than 1/2" inlet and outlet.

DISASSEMBLY

1. Always disconnect the air supply line before performing any maintenance on this tool.
2. Always use protective eyewear when performing maintenance on a tool or when operating a tool.
3. Do not disassemble a tool any further than necessary to replace or repair damaged parts.
4. Do not disassemble the Impactool unless you have a complete set of new gaskets and O-rings for replacement.
5. Do not remove any part which is a press fit in or on an assembly unless the removal of that part is necessary for repair or replacement.
6. Whenever grasping a tool or part in a vise, always use copper-covered or leather-covered vise jaws to protect the surface of the part and help prevent distortion. This is particularly true of threaded members and housings.

Disassembly of the Impact Mechanism

1. Grasp tool in copper-covered or leather-covered vise jaws with square drive upward.
2. Using a hex wrench, unscrew and remove two Deflector Screws (33). Remove Exhaust Deflector (29) and Exhaust Gasket (32) and, if necessary, pull Exhaust Baffle (31) and Exhaust Silencer (30) from Deflector.
3. Using a hex wrench, unscrew and remove four Hammer Case Cap Screws (42) and Lock Washers (43). Remove Dead Handle Bracket (51) and two Bracket Spacers (52).
4. While lightly tapping on the end of Anvil (49) with plastic hammer, lift off hammer Case (39).
5. Remove Hammer Case Gasket (41).
6. Remove Anvil by rotating it as it is lifted out of the assembly.
7. Lift remaining hammer assembly off rotor shaft.
8. Push two Hammer Pins (47) out of Hammer Frame Assembly (46) and slide two Hammers (48) out of the Frame.

Disassembly of the Reverse Valve

1. Lightly clamp Motor Housing Assembly (25) in copper-covered or leather-covered vise jaws with Trigger Handle Assembly (1) upward.

NOTICE

Excessive clamping pressure will distort the Motor housing and make motor removal extremely difficult. Do not insert the hammer case end of the motor housing more than 1" (25 mm) into the vise jaws.

2. Using a hex wrench, unscrew and remove four handle Cap Screws (44) and Lock Washers (45). Lift assembled handle and handle Gasket (15) off Motor Housing and set them aside.
3. Lift motor Clamp Washer (16) off Housing.
4. Move Reverse Lever (34) to center position and using a drift pin to push from below, grasp Lever and lift Reverse Valve Assembly (37) out of Housing.

NOTICE

Make certain the Lever is in the center position to avoid jamming the Reverse Lock Plunger (35) when the Reverse Valve Assembly is removed.

5. Pull Lever off Reverse Valve and remove Reverse Valve Bushing Seal (38) from groove on the Valve.

MAINTENANCE SECTION

- Using needle nose pliers, remove Reverse Lock Plunger and Reverse Lock Plunger Spring (36) from Motor Housing.

Disassembly of the Motor

- Remove assembled motor from the vise jaws and using a plastic hammer, tap splined shaft of Rotor (19) to dislodge Rotor from Front Rotor Bearing (23).
- Lift Motor Housing (25) off Rotor, Rear End Plate (17) and Rear Rotor Bearing (18) which will remain together as a unit.
- Remove six Vanes (20) from Rotor.
- Pull Rear End Plate off Rotor.
- Open a set of vise jaws wide enough to clear hub of Rear End Plate and sharply rap hub end of end plate on top of jaws to dislodge Rear Rotor Bearing.
- Remove Cylinder Dowel (24) and lay Motor Housing on top of vise jaws with the Front Rotor Bearing (23) downward between the jaws. Using a soft drift pin, tap Bearing out of Housing.
- To remove Cylinder (21) and Front End Plate (22), thread four 1/4"-20 thread socket head cap screws that are at least 3" (75 mm) long into handle end of Housing. Grasping Housing with installed screws downward, sharply strike heads of the screws on a sturdy table to dislodge Cylinder. Cylinder should drop out of Housing after a few impacts.



WARNING

The following procedure requires the use of heat. Take all necessary precautions to prevent burns.

If it does not, carefully heat alternate sides of Housing until it is very warm. Using thick, heavy gloves to avoid being burned, grasp Housing and repeat the attempt to dislodge Cylinder.

- Remove the two Air Port Gaskets (27) and Air Port Gasket Retainers (28) from Housing.

Disassembly of the Handle

- Clamp Trigger Handle Assembly in copper-covered or leather-covered vise jaws with the Straight Inlet (11) upward.
- Using a wrench, unscrew and remove Inlet as well as Air Strainer Screen (12) and valve Spring (10).
- Remove Throttle Valve Assembly (8) and the Valve Plunger (7) from Handle.

- If Trigger (5) must be removed, use an arbor press to push Trigger Pin (6) from the Handle and slide Trigger out of slot in Handle.

ASSEMBLY

General Instructions

- Always press on the **inner** ring of a ball-type bearing when installing the bearing on a shaft.
- Always press on the **outer** ring of a ball-type bearing when installing the bearing in a bearing recess.
- Whenever grasping a tool or part in a vise, always use copper-covered or leather-covered vise jaws to protect the surface of the part and help prevent distortion. This is particularly true of threaded members and housings.
- Except for bearings, always clean every part and wipe every part with a thin film of oil before installation.
- Apply O-ring lubricant to every O-ring before assembly.
- Check every bearing for roughness. If an open bearing must be cleaned, wash it thoroughly in clean solvent and dry it with a clean cloth. Sealed or shielded bearings should never be cleaned. Work grease thoroughly into every open bearing before installation.

Assembly of the Handle

- Position Trigger (5) in Handle (1) and using an arbor press, push Trigger Pin (6) full length into Handle so that it captures the Trigger.
- Clamp Handle in copper-covered or leather-covered vise jaws with air inlet opening upward.
- Coat Throttle Valve Plunger (7) with oil and insert it, rounded end leading, into inlet hole in the Handle.
- Install a new Throttle Valve Face (9) on Throttle Valve (8) and insert assembly, Valve Face leading, into inlet hole in Handle.
- Encircle cone end of Air Strainer Screen (12) with large end of Throttle Valve Spring (10) and insert both parts, Spring leading, into inlet hole in Handle.
- Install Straight Inlet (11) over Strainer Screen in Handle and tighten Inlet between 20 and 25 ft-lb (27 and 34 Nm) torque.
- Remove Handle from vise and test Trigger. If the Trigger functions properly, place the assembled Handle aside. If it does not function properly, disassemble Handle to determine cause of problem.

MAINTENANCE SECTION

Assembly of the Motor

1. Lightly clamp Motor Housing (25) in copper-covered or leather-covered vise jaws with handle end upward.

NOTICE

Excessive clamping pressure will distort the Motor Housing and make motor installation extremely difficult. Do not insert the hammer case end of the Motor Housing more than 1" (25 mm) into the vise jaws.

2. Coat inside surface of Housing and outer edge of Front End Plate (22) with a light film of oil.
3. Using a long tee hex wrench as an alignment pin, insert Front End Plate, copper face trailing, into Motor Housing. Align dowel hole in End Plate with dowel hole at the bottom of motor bore.
4. Lubricate and insert a new fiber Air Port Gasket Retainer (28) in one of the air ports inside Motor Housing.
5. Install an Air Port Gasket (27) in air port against Gasket Retainer with flat end of Gasket away from Retainer.
6. Repeat Steps 4 and 5 to install remaining Gasket and Retainer in the other air port.
7. Coat outside of Cylinder (21) with a light film of oil and using the long tee hex wrench as an alignment pin to align holes in Cylinder with holes in Front End Plate and Housing, insert Cylinder into Housing.
8. Coat inside of Cylinder and Rotor (19) with a light film of oil and insert the splined hub of Rotor through Cylinder into Front End Plate.
9. Coat each Vane (20) with a light film of oil and insert a Vane into each slot in the Rotor. Vanes must be installed with curved edge toward center of Rotor. Spin the Rotor to settle Vanes into position.
10. Using the long tee hex wrench to align hole in Rear End Plate (17) with hole in the Cylinder, insert Rear End Plate, copper face leading, into Motor Housing against the Cylinder. End Plate is properly seated when the large trailing face of the End Plate is slightly below face of Motor Housing.
11. Grease Rear Rotor Bearing (18) and install it in recess of Rear End Plate.
12. Remove alignment pin from assembled motor and install Cylinder Dowel (24). The Dowel is properly seated when end of Dowel does not protrude above End Plate.
13. Install Motor Clamp Washer (16) against Rear End Plate so that large outer edge of Washer contacts End Plate.

Assembly of the Reverse Valve

1. Inject a small amount of grease into hole in Motor Housing (25) where Reverse Lock Plunger (35) will be installed. With the grease to hold them in position, install Reverse Lock Plunger Spring (36) and Lock Plunger.
2. Install a new Reverse Valve Bushing Seal (38) in the annular groove on Reverse Valve (37).
3. Coat Reverse Valve with a light film of oil and install it in Motor Housing with the side hole nearest to the Seal pointed toward the Rotor (19).
4. Position Reverse Lever (34) on Reverse Valve and while using a thin blade screwdriver to depress the Reverse Lock Plunger, push Lever onto Reverse Valve.
5. Place a new Handle Gasket (15) on Motor Housing.
6. Examine Reverse Valve Seal (13) located inside Handle and if it is nicked, deformed or worn, remove it and install a new Seal.
7. Fill rotor cavity in Handle with the recommended grease and position Handle on the Motor Housing.
8. Install four Handle Cap Screws (44) and Lock Washers (45) and using an alternate tightening pattern, tighten Screws between 14 and 17 ft-lb (19 and 27 Nm) torque.
9. Move Reverse Lever through the forward and reverse positions to make certain the Lever locks in position.
10. Turn assembly in vise jaws and clamp on Handle with rotor shaft upward.
11. Grease Front Rotor Bearing (23) and place it over rotor shaft.
12. Select a socket or piece of tubing that will fit over the outside race of the Bearing and tap it with a hammer to seat Bearing into Housing.
13. Pack Bearing with additional grease and rotate rotor shaft. If shaft does not rotate smoothly, rap end of rotor shaft with a soft hammer to set motor and try to rotate shaft again.

MAINTENANCE SECTION

Assembly of the Impact Mechanism

1. Coat Hammers (48) with grease and place the two together so that the faces having the partial recess in the central opening contact each other and the half notch in the edge of one Hammer aligns with the wide notch in edge of the other Hammer.

NOTICE

If you are installing new Hammers or want to change the location of 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.

2. Slide the two Hammers into Hammer Frame (46).
3. Capture the Hammers inside Frame by installing two Hammer Pins (47) in end of the Frame opposite the hub with the internal spline.
4. Insert Anvil (49) into end of Hammer Frame opposite hub with internal spline until it seats. It may be necessary to rotate the Anvil while moving the Hammers. Anvil is properly positioned when Hammers are displaced whenever the Anvil is rotated.
5. Set assembled hammer mechanism onto rotor shaft spline.
6. Place Hammer Case Gasket (41) over mechanism and against face of Motor Housing.
7. Grease Anvil and top of the Hammer Frame.
8. Place the Hammer Case (39) over the mechanism assembly against Gasket.
9. Assemble Dead Handle (50) to Dead Handle Bracket (51). Insert two Hammer Case Cap Screws (42) with Lock Washers (43) through Bracket and install two Dead Handle Bracket Spacers (52) on the Screws. Position the assembly against Hammer Case and thread Screws into Housing.
10. Thread remaining two Cap Screws and Lock Washers into Housing and using an alternating pattern for all four fasteners, tighten Screws to between 20 and 25 ft-lb (27 and 34 Nm) torque.
11. Install a new Exhaust Silencer (30) in the Exhaust Deflector (29) and then install Exhaust Baffle (31) in Deflector.
12. Position a new Exhaust Gasket (32) against face of Motor Housing. Position the assembled Deflector against Gasket and secure it by tightening the two Deflector Screws (33).

MAINTENANCE SECTION

TROUBLESHOOTING GUIDE

Trouble	Probable Cause	Solution
Low power	Dirty Inlet Bushing or Air Strainer Screen and/or Exhaust Silencer	Using a clean, suitable, cleaning solution, in a well ventilated area, clean Air Strainer Screen, Inlet Bushing and Exhaust Silencer.
	Worn or broken Vanes	Replace complete set of Vanes.
	Worn or broken Cylinder and/or scored End Plates	Examine Cylinder and replace it if it is worn or broken or if bore is scored or wavy. Replace 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.
	Improper positioning of Reverse Valve	Make certain that Reverse Valve is fully engaged to the left or right.
Motor will not run	Incorrect assembly of motor	Disassemble motor and replace worn or broken parts and reassemble as instructed.
	Insufficient lubricant in the impact mechanism	Remove Hammer Case Assembly and lubricate impact mechanism.
Tool will not impact	Broken or worn impact mechanism parts	Remove Hammer Case and examine 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.

