

OPERATION AND MAINTENANCE MANUAL

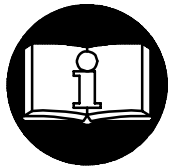
for

MODEL 1734A1 IMPACTOOL (*RATTLER*)

NOTICE

Model 1734A1 Impactool is designed specifically for steel erection and construction applications. 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 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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WARNING LABEL IDENTIFICATION

⚠ WARNING

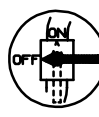
FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.



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




⚠ 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.



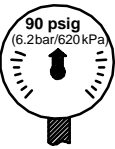
⚠ WARNING
Do not carry the tool by the hose.



⚠ 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.

PLACING TOOL IN SERVICE

LUBRICATION



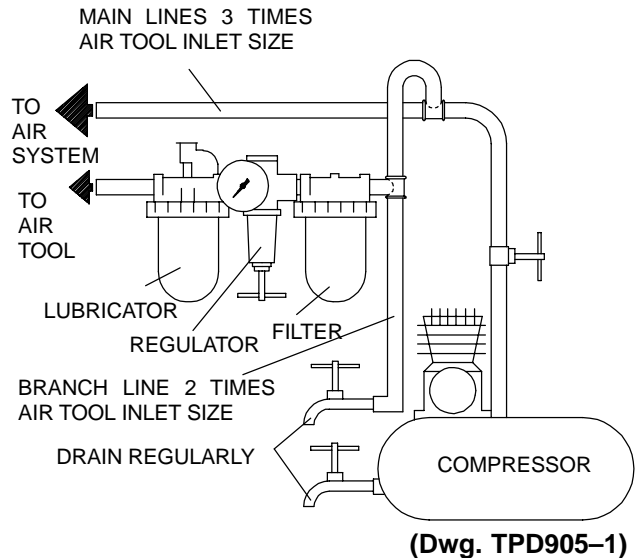
Ingersoll-Rand No. 50

Ingersoll-Rand No. 100

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

For USA – No. C28-04-FKG0-28

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.



HOW TO ORDER AN IMPACTOOL

GRIP HANDLE WITH OUTSIDE TRIGGER AND NO. 5 SPLINE DRIVE ANVIL

Model	Rated Capacity, Bolt Diameter, in.			Recommended Torque Range	
	Mild Steel	A325	A490	ft-lb	Nm
1734A1	1-1/4	1-1/8	1	500 – 1,050	678 – 1,423

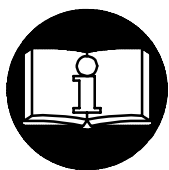
MANUEL D'EXPLOITATION ET D'ENTRETIEN DE LA CLÉ A CHOCS MODÈLE 1734A1

NOTE

La clé à chocs modèle 1734A1 est conçue spécialement pour les applications sur les de charpentes métalliques et de construction.

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 des raisons de sécurité, et pour obtenir les performances et la durabilité maximales des pièces, cet outil doit être alimenté avec de l'air comprimé à une pression maximum de 6,2 bar (620 kPa), et un tuyau flexible ayant un diamètre intérieur de 13 mm.
- 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 fous et les cheveux longs, éloignés des parties tournantes 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 de l'arbre de l'outil peut continuer brièvement 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 clés 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 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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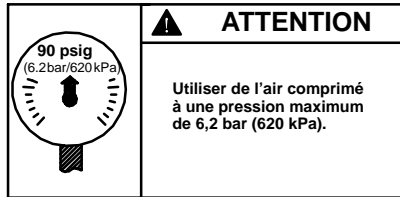
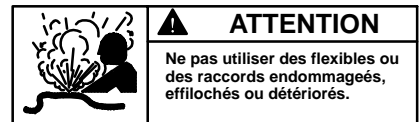
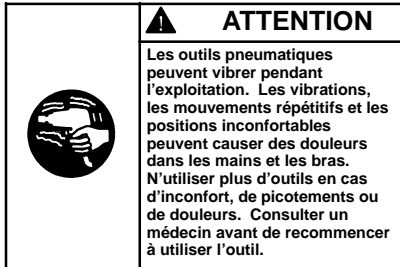
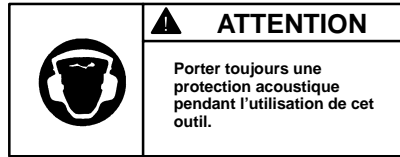
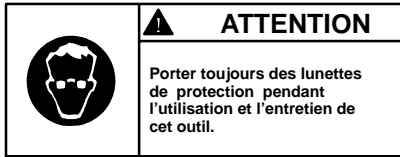
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SIGNIFICATION DES ETIQUETTES D'AVERTISSEMENT

ATTENTION

LE NON RESPECT DES AVERTISSEMENTS SUIVANTS PEUT CAUSER DES BLESSURES



MISE EN SERVICE DE L'OUTIL

LUBRIFICATION

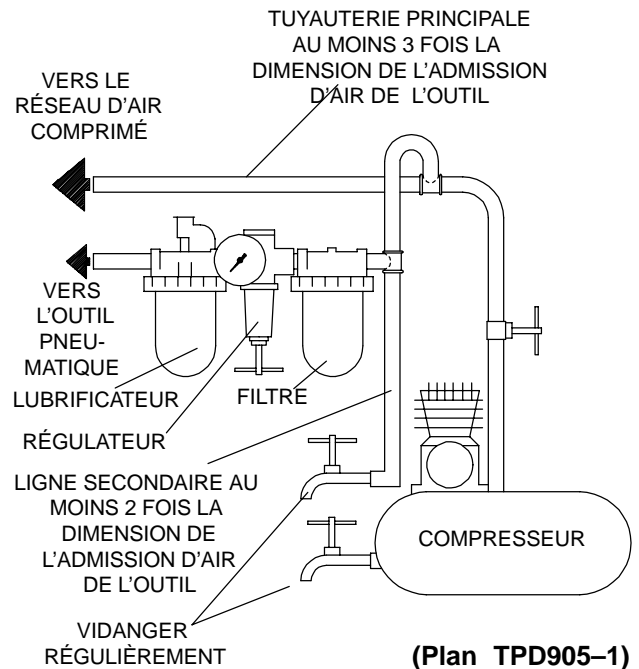


Ingersoll-Rand N° 50 Ingersoll-Rand N° 100

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

USA – N° C28-04-FKG0-28

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

POIGNÉE AVEC GÂCHETTE EXTÉRIEURE ET ENCLUME A ENTRAÎNEUR CANNELÉ No. 5

Modèle	Capacité nominale (Diamètre de boulon en pouces)			Gamme de couples recommandée	
	Acier doux	A325	A490	ft-lbs	(Nm)
1734A1	1-1/4	1-1/8	1	500 – 1.050	678 – 1.423

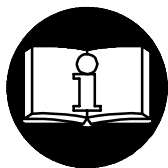
MANUAL DE USO Y MANTENIMIENTO PARA LA LLAVE DE IMPACTO MODELO 1734A1

NOTA

La llave de impacto modelo 1734A1 está diseñada específicamente para aplicaciones de construcción y estructuras de acero.

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 13 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.

	<p>ADVERTENCIA</p> <p>Use siempre protección ocular cuando utilice esta herramienta o realice operaciones de mantenimiento en la misma.</p>
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	<p>ADVERTENCIA</p> <p>Use siempre protección para los oídos cuando utilice esta herramienta.</p>
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	<p>ADVERTENCIA</p> <p>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.</p>
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	<p>ADVERTENCIA</p> <p>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.</p>
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	<p>ADVERTENCIA</p> <p>No coger la herramienta por la manguera para levantarla.</p>
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	<p>ADVERTENCIA</p> <p>No utilizar mangueras de aire y accesorios dañados, desgastados ni deteriorados.</p>
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	<p>ADVERTENCIA</p> <p>Mantener una postura del cuerpo equilibrada y firme. No estirar demasiado los brazos al manejar la herramienta.</p>
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	<p>ADVERTENCIA</p> <p>Manejar la herramienta a una presión de aire máxima de 90 psig (6,2 bar/620 kPa).</p>
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PARA PONER LA HERRAMIENTA EN SERVICIO

LUBRICACION

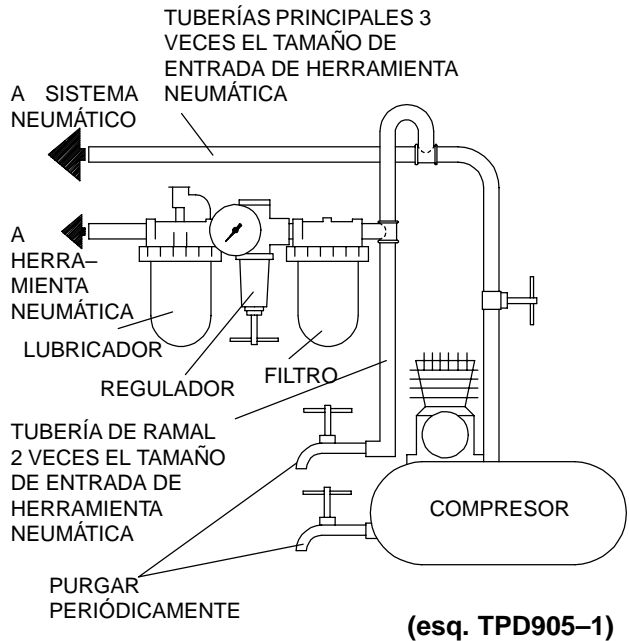


Ingersoll-Rand N° 50 Ingersoll-Rand N° 100

Utilice siempre un lubricador de aire comprimido con estas llaves de impacto. Recomendamos la siguiente unidad de Filtro-Lubricador-Regulador:

USA - N°. C28-04-FKG0-28

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

EMPUÑADURA CON GATILLO EXTERNO Y YUNQUE DE MANDO ESTRIADO N° 5

Modelo	Capacidad nominal (diámetro de tornillos en pulgadas)			Gama de par recomendada	
	Acero dulce	A325	A490	ft-lbs	Nm
1734A1	1-1/4	1-1/8	1	500 – 1.050	678 – 1.423

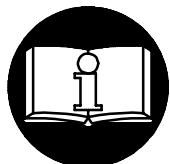
MANUAL DE FUNCIONAMENTO E MANUTENÇÃO PARA A FERRAMENTA DE PERCUSSÃO MODELO 1734A1

AVISO

A Ferramenta de Percussão Modelo 1734A1 é concebida especificamente para aplicações de montagem de estrutura em aço e construção.

A Ingersoll-Rand não pode ser responsabilizada pela modificação de ferramentas para aplicações para as quais não tenha sido consultada.

⚠️ ADVERTÊNCIA



**IMPORTANTES INFORMAÇÕES DE SEGURANÇA EM ANEXO.
LEIA ESTE MANUAL ANTES DE OPERAR A FERRAMENTA.**

**É RESPONSABILIDADE DA ENTIDADE PATRONAL PÔR AS INFORMAÇÕES
CONTIDAS NESTE MANUAL À DISPOSIÇÃO DOS UTILIZADORES.**

A NÃO OBEDIÊNCIA ÀS ADVERTÊNCIAS SEGUINTE PODERÁ RESULTAR EM LESÕES PESSOAIS.

COLOCAÇÃO DA FERRAMENTA EM SERVIÇO

- Sempre opere, inspeccione 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, desempenho superior e durabilidade máxima das peças, opere esta ferramenta a uma pressão de ar máxima de 90 psig (6,2 bar/620 kPa) na admissão com uma mangueira de alimentação de ar com diâmetro interno de 1/2 pol. (13 mm).
- Desligue sempre a alimentação de ar e a mangueira de alimentação de ar antes de instalar, retirar ou ajustar qualquer acessório desta ferramenta, ou antes de fazer manutenção na mesma.
- Não utilize mangueiras de ar e acessórios danificados, puídos ou deteriorados.
- Certifique-se de que todas as mangueiras e acessórios são da dimensão correcta e que estão seguros firmemente. Consulte o Des. TPD905-1 para uma disposição de tubos típica.
- Utilize sempre ar limpo e seco a uma pressão máxima de 90 psig. Poeira, fumos corrosivos e/ou humidade excessiva podem destruir o motor de uma ferramenta pneumática.
- Não lubrifique a ferramenta com líquidos inflamáveis ou voláteis como querosene, gasóleo ou combustível para jactos.
- Não retire nenhum rótulo. Substitua os rótulos danificados.

UTILIZAÇÃO DA FERRAMENTA

- Use sempre protecção para os olhos ao operar ou fazer manutenção nesta ferramenta.

- Use sempre protecção auricular ao operar esta ferramenta.
- Mantenha as mãos, roupas soltas e cabelos longos afastados da extremidade rotativa da ferramenta.
- Note a posição da alavanca de inversão antes de operar a ferramenta de forma a estar ciente da direcção de rotação ao operar o regulador.
- Esteja preparado e alerta para mudanças súbitas no movimento durante o arranque e o funcionamento de qualquer ferramenta mecânica.
- Mantenha o corpo numa posição equilibrada e firme. Não estique o corpo ao operar esta ferramenta. Podem ocorrer binários de reacção elevados à ou abaixo da pressão do ar recomendada.
- O veio da ferramenta pode continuar a rodar por um curto período de tempo depois de soltar o regulador.
- As ferramentas pneumáticas podem vibrar durante a utilização. Vibração, movimentos repetitivos ou posições desconfortáveis podem ser nocivos às suas mãos e braços. Pare de utilizar qualquer ferramenta se ocorrer desconforto, sensação de formigamento ou dor. Procure assistência médica antes de reiniciar a utilização.
- Use os acessórios recomendados pela Ingersoll-Rand.
- Use apenas caixas e acessórios de percussão. Não use caixas e acessórios manuais (cromo).
- As chaves de percussão não são chaves dinamométricas. As ligações que precisem de um valor específico de binário devem ser verificadas com um dinamómetro após serem montadas com uma chave de percussão.
- Esta ferramenta não é concebida para funcionar em atmosferas explosivas.
- Esta ferramenta não é isolada contra choque eléctrico.

AVISO

A utilização de qualquer peça sobresselente que não seja Ingersoll-Rand genuína pode resultar em riscos para a segurança, em desempenho reduzido da ferramenta e mais necessidade de manutenção, e pode invalidar todas as garantias.

As reparações só devem ser feitas por pessoal autorizado e com formação adequada. Consulte o Representante Autorizado Ingersoll-Rand mais próximo.

Envie toda a correspondência ao Escritório
ou Distribuidor Ingersoll-Rand mais próximo.

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IDENTIFICAÇÃO DAS ETIQUETAS DE ADVERTÊNCIA

⚠ ADVERTÊNCIA


A NÃO OBEDEÊNCIA ÀS ADVERTÊNCIAS SEGUINTESS PODERÁ RESULTAR EM LESÕES PESSOAIS.


	⚠ ADVERTÊNCIA Use sempre protecção para os olhos ao operar ou fazer manutenção nesta ferramenta.
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	⚠ ADVERTÊNCIA Use sempre protecção auricular ao operar esta ferramenta.
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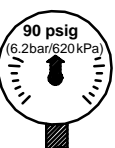
	⚠ ADVERTÊNCIA Desligue sempre a alimentação de ar e a mangueira de alimentação de ar antes de instalar, remover ou ajustar um acessório desta ferramenta, ou antes de fazer manutenção na mesma.
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	⚠ ADVERTÊNCIA As ferramentas pneumáticas podem vibrar durante a utilização. Vibração, movimentos repetitivos ou posições desconfortáveis podem ser nocivos às suas mãos e braços. Pare de utilizar qualquer ferramenta se ocorrer desconforto, sensação de formigamento ou dor. Procure assistência médica antes de reiniciar a utilização.
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	⚠ ADVERTÊNCIA Não transporte a ferramenta pela mangueira.
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	⚠ ADVERTÊNCIA Não utilize mangueiras de ar e acessórios danificados, puidos ou deteriorados.
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	⚠ ADVERTÊNCIA Mantenha o corpo numa posição equilibrada e firme. Não estique o corpo ao operar esta ferramenta.
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	⚠ ADVERTÊNCIA Opere a uma pressão de ar máxima de 90 psig (6,2 bar/ 620 kPa).
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COLOCAÇÃO DA FERRAMENTA EM SERVIÇO

LUBRIFICAÇÃO

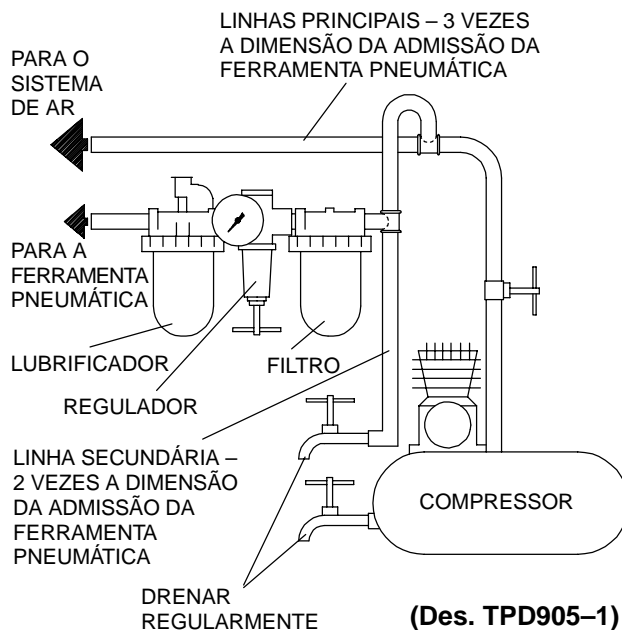


Ingersoll-Rand Nº 50 Ingersoll-Rand Nº 100

Utilize sempre um lubrificador de linha de ar com estas ferramentas.
Recomendamos a seguinte Unidade Filtro-Lubrificador-Regulador:

Para USA – Nº. C28-04-FKG0-28

Após cada quarenta-e-oito horas de funcionamento, ou conforme a experiência indicar, injecte cerca de 4 cc de Massa Ingersoll-Rand Nº 100 no Copo de Massa.

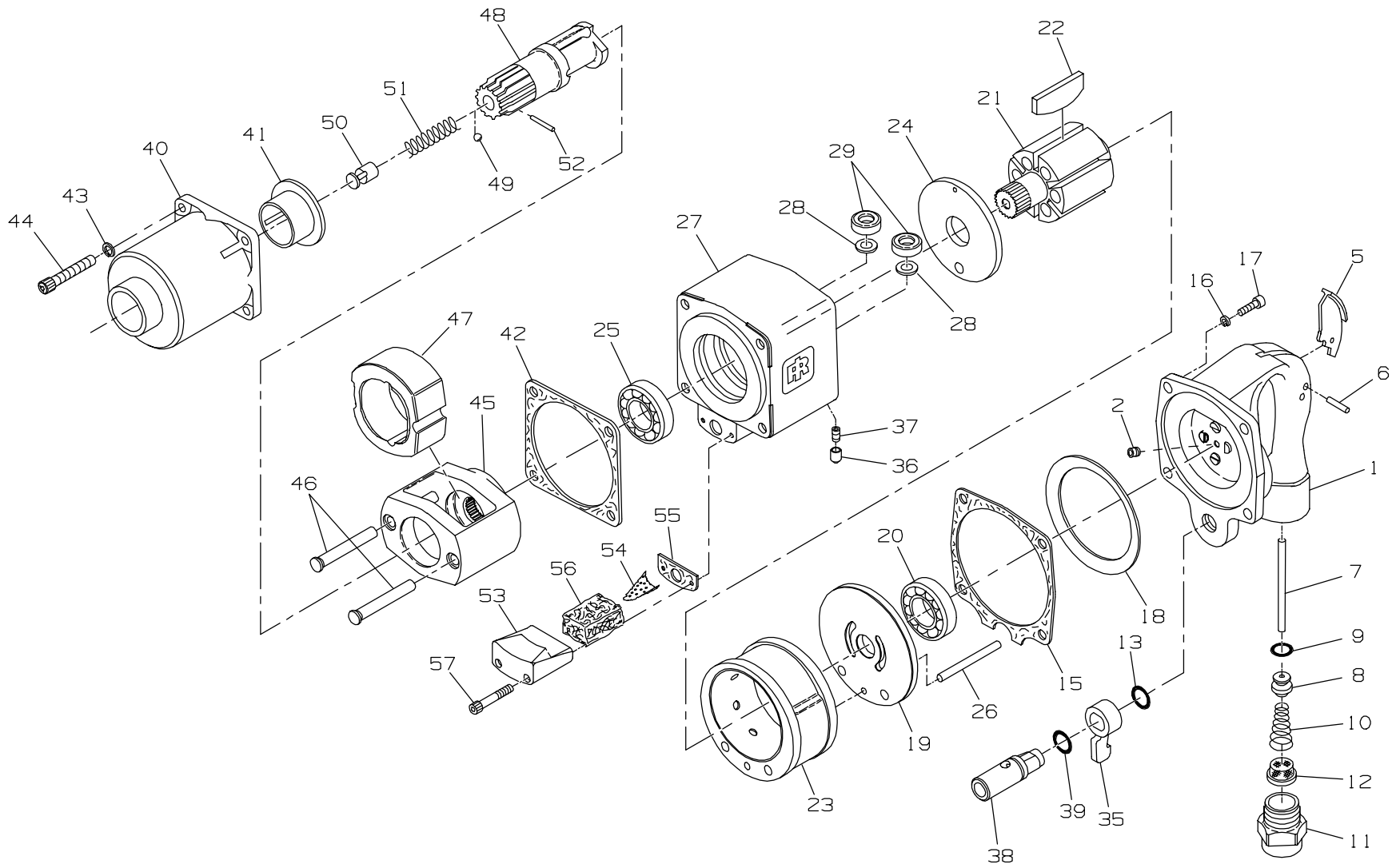


ESPECIFICAÇÕES

PUNHO COM GATILHO EXTERNO E BIGORNA DE ACCIONAMENTO COM ESTRIAS Nº 5

Modelo	Capacidade Nominal (diâmetro do parafuso em polegadas)			Gama de Binário Recomendada	
	Aço Macio	A325	A490	ft-lbs	Nm
1734A1	1-1/4	1-1/8	1	500 – 1.050	678 – 1.423

MAINTENANCE SECTION



(Dwg. TPB799-3)



PART NUMBER FOR ORDERING

PART NUMBER FOR ORDERING

1	Outside Trigger Handle Assembly	2934-A1	38	Reverse Valve Assembly	2934-A329
2	Grease Fitting	130SR-188	◆ 39	Reverse Valve Bushing Seal	85H-167
5	Outside Trigger	844-78	• 40	Hammer Case Assembly	2934-A727
6	Outside Trigger Pin	F02-15	41	Hammer Case Bushing	2934-641
7	Throttle Valve Plunger	2934-302	* 42	Hammer Case Label	WARNING-2-99
8	Throttle Valve Assembly	2934-A50	◆ 43	Hammer Case Gasket	2934-36
◆• 9	Throttle Valve Face	2934-159	44	Hammer Case Cap Screw Lock Washer (4)	34U-58
◆ 10	Throttle Valve Spring	834-51	45	Hammer Case Cap Screw (4)	834-638
11	Straight Inlet	845-565	46	Hammer Frame Assembly	2934-A703
◆• 12	Air Strainer Screen	434-61	47	Hammer Pin (2)	2934-704
◆• 13	Reverse Valve Seal	R00BR-210	48	Hammer	1712-724
◆• 15	Handle Gasket	2934-283	49	Spline Drive Anvil Assembly	1712-A526
16	Handle Lock Washer (4)	8U-58	50	Socket Retaining Ball	D04-280
17	Handle Cap Screw (4)	510-638	51	Retaining Ball Plunger	845-230
18	Motor Clamp Washer	2934-207	52	Retaining Plunger Spring	2940-231
19	Rear End Plate	2934-12	53	Plunger Retaining Pin	845-128
◆ 20	Rear Rotor Bearing	508-97	54	Exhaust Deflector Kit	2934-K23
21	Rotor	2934-53	55	Exhaust Deflector	2934-23A
◆• 22	Vane Packet (set of 6 Vanes)	2934-42-6	56	Exhaust Baffle	2934-124
23	Cylinder	2934-3	57	Gasket	2934-223
24	Front End Plate	2934-11	*	Silencer	2940P-311
◆ 25	Front Rotor Bearing	810-97	*	Exhaust Deflector Screw (2)	R43F-104
26	Cylinder Dowel	2934-98	*	Reverse Valve Bushing	2934-330S
27	Motor Housing Assembly	2934-A40A	*	Grease Gun	230-228
28	Air Port Gasket (2)	R44H-210A	*	Grease	405-MG1
◆• 29	Air Port Gasket Retainer (2)	2940-200	*	Oil	405-M01
*	Nameplate	1734A1-301	*	Tune-up Kit (includes illustrated items 3, 9, 10, 12, 13, 15, 20, 22, 25, 28 [2], 29 [2], 36, 37, 39 and 42)	1712B/1712P-TK3
*	Nameplate Screw (4)	C32-302			
35	Reverse Lever	2934-658A			
◆ 36	Reverse Lock Plunger	4U-663B			
◆ 37	Reverse Lock Plunger Spring	4U-664			

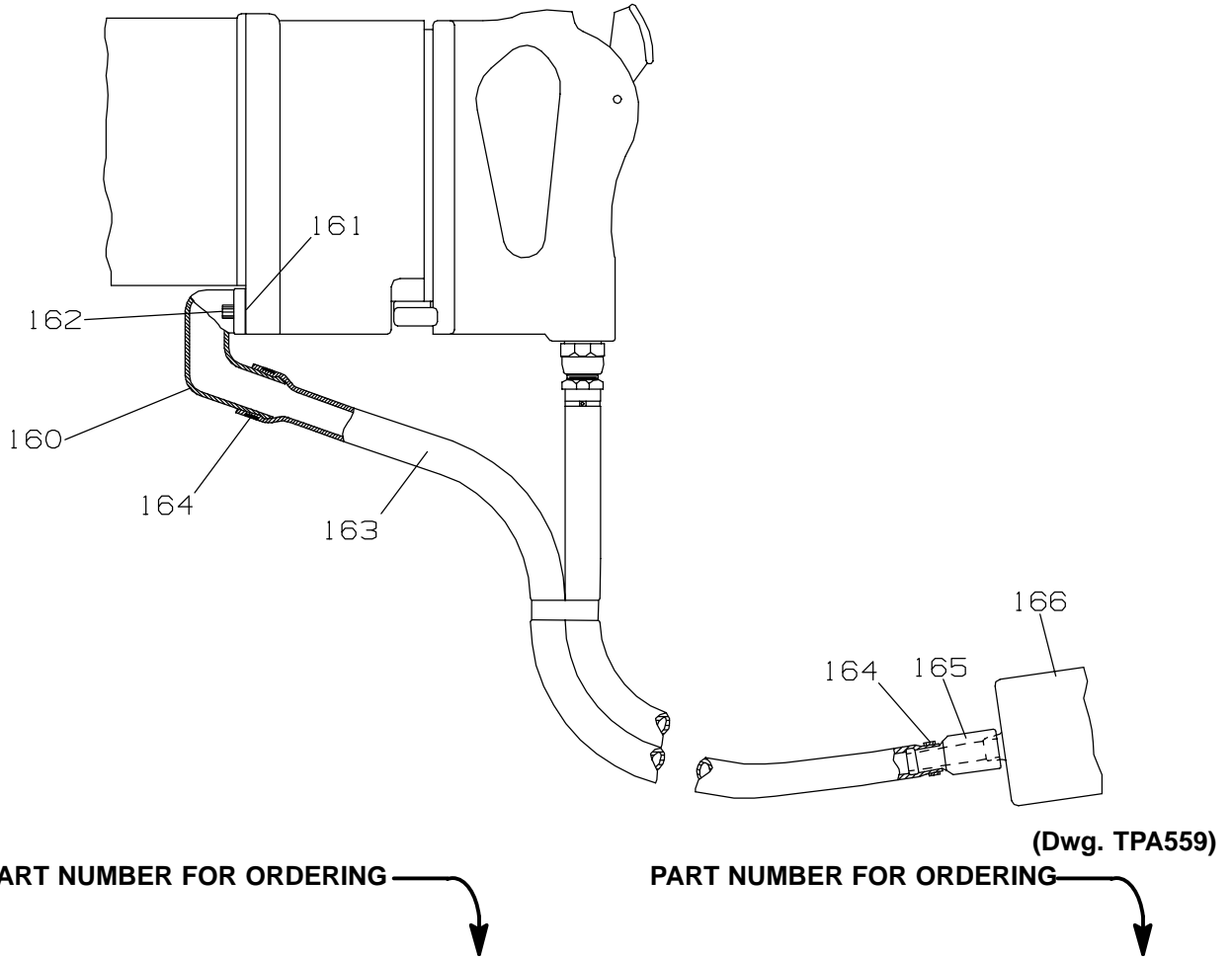
* Not illustrated.

◆ Indicates Tune-up Kit part.

• 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

PIPED AWAY EXHAUST KIT WITH MUFFLER



PART NUMBER FOR ORDERING →

PART NUMBER FOR ORDERING →

	Piped-Away Exhaust Kit with Muffler	2940-KM184	163	Exhaust Hose	R21-230
	without Muffler	2940-K184	164	Hose Clamp (2)	R21-31
160	Exhaust Adapter	2940-167	165	Hose Connector (for 2940-KM184)	R21-185
161	Exhaust Adapter Gasket	2940-30	166	Muffler (for 2940-KM184) ...	R21-674
162	Adapter Cap Screw (2)	AL-638			

MAINTENANCE SECTION

WARNING

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

Always turn off air supply and disconnect 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 Model 1734A1 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 (48) lightly with grease. Also, coat the inside of the Hammer Case Bushing (41) 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.

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 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 repairs or replacement.
4. Do not disassemble the tool unless you have a complete set of new gaskets and O–rings for replacement.

Disassembly of the Impactool

1. Grasp tool in copper–covered or leather–covered vise jaws with square drive upward.
2. Using a hex wrench, unscrew and remove the two Deflector Screws (57). Remove Exhaust Deflector (53) and Exhaust Gasket (55) and, if necessary, pull Exhaust Baffle (54) and Exhaust Silencer (56) from Deflector.
3. Using a hex wrench, unscrew and remove the four Hammer Case Cap Screws (44) and Lock Washers (43).
4. While lightly tapping on the end of Anvil (48) with a plastic hammer, lift off Hammer Case (40).

5. Remove the Hammer Case Gasket (42).
6. Grasp the Anvil and lift it from the impact mechanism making sure not to drop the Hammer Pins (46).

Disassembly of the Impact Mechanism

1. Set mechanism, driver end up, on a workbench.
2. Slide the Hammer (47) from the Hammer frame (45).
3. Lift off the Hammer Frame and the two Hammer Pins.

Disassembly of the Reverse Valve

1. Lightly clamp Motor Housing Assembly (27) in leather–covered or copper–covered vise jaws with Outside 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 the four Handle Cap Screws (17) and Lock Washers (16). Lift assembled handle and Handle Gasket (15) off Motor Housing and set them aside.
3. Lift Motor Clamp Washer (18) off Housing.
4. Move Reverse Lever (35) to center position and using a drift pin to push from below, grasp Lever and lift Reverse Valve Assembly (38) out of Housing.

NOTICE

Make certain the Lever is in the center position to avoid jamming the Reverse Lock Plunger (36) when the Reverse Valve Assembly is removed.

5. Pull Lever off Reverse Valve and remove Reverse Valve Bushing Seal (39) from groove on Valve.
6. Using needle nose pliers, remove Reverse Lock Plunger and Reverse Lock Plunger Spring (37) from Motor Housing.

Disassembly of the Motor

1. Remove assembled motor and Motor Housing from vise jaws and using a plastic hammer, tap splined shaft of Rotor (21) to dislodge Rotor from Front Rotor Bearing (25).
2. Lift Motor Housing (27) off Rotor, Rear End Plate (19) and Rear Rotor Bearing (20) which will remain together as a unit.
3. Remove six Vanes (22) from Rotor.
4. Pull Rear End Plate off Rotor.
5. 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.

MAINTENANCE SECTION

6. Remove Cylinder Dowel (26) and lay Motor Housing on top of vise jaws with Front Rotor Bearing (25) downward between jaws. Using a soft drift pin, tap Bearing out of the Housing.
7. To remove Cylinder (23) and Front End Plate (24), 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 screws on a sturdy table to dislodge Cylinder. Cylinder should drop out of Housing after a few impacts. If it does not, proceed as follows:

WARNING

The following procedure requires the use of heat. Take all necessary precautions to prevent burns. Carefully heat alternate sides of Housing until it is very warm. Using thick, heavy gloves to avoid being burned, grasp Housing and repeat attempt to dislodge Cylinder.

8. Remove two Air Port Gaskets (28) and Air Port Gasket Retainers (29) from Housing.

Disassembly of the Handle

1. Clamp Outside Trigger Handle Assembly in leather-covered or copper-covered vise jaws with the Straight Inlet (11) upward.
2. Using a wrench, unscrew and remove Inlet as well as Air Strainer Screen (12) and Valve Spring (10).
3. Remove Throttle Valve Assembly (8) and Valve Plunger (7) from Handle.
4. 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

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 installing the bearing in a bearing recess.
3. Whenever grasping a tool or part in a vise, always use copper-covered or leather-covered vise jaws. Take extra care with threaded members and 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.

Assembly of the Handle

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

Assembly of the Motor

1. Lightly clamp Motor Housing (27) in leather-covered or copper-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 (24) with a light film of Ingersoll-Rand No. 50 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 (29) in one of the air ports inside Motor Housing.
5. Install an Air Port Gasket (28) in the 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 (23) with a light film of oil and using long tee hex wrench as an alignment pin to align the holes in Cylinder with holes in Front End Plate and Housing, insert Cylinder into Housing.

MAINTENANCE SECTION

8. Coat inside of Cylinder and Rotor (21) with a light film of oil and insert the splined hub of Rotor through Cylinder into Front End Plate.
9. Coat each Vane (22) 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 in position.
10. Using long tee hex wrench to align hole in Rear End Plate (19) with hole in Cylinder, insert the Rear End Plate, bronze face leading, into Motor Housing against the Cylinder. End Plate is properly seated when large trailing face of End Plate is slightly below face of Motor Housing.
11. Grease Rear Rotor Bearing (20) and install it in recess of Rear End Plate.
12. Remove alignment pin from assembled motor and install Cylinder Dowel (26). The Dowel is properly seated when end of Dowel does not protrude above End Plate.
13. Install Motor Clamp Washer (18) 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 (27) where Reverse Lock Plunger (36) will be installed. With grease to hold them in position, install Reverse Lock Plunger Spring (37) and Lock Plunger.
2. Install a new Reverse Valve Bushing Seal (39) in annular groove on Reverse Valve (38).
3. Coat Reverse Valve with a light film of oil and install it in Motor Housing with the side hole nearest to Seal pointed toward Rotor (21).
4. Position Reverse Lever (35) on Reverse Valve and while using a thin blade screwdriver to depress Reverse Lock Plunger, push Lever onto Reverse Valve.
5. Place a new Handle Gasket (15) on the 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 Ingersoll–Rand No. 100 Grease and position Handle on the Motor Housing.
8. Install four Handle Cap Screws (17) and Lock Washers (16) and using an alternate tightening pattern, tighten Screws to between 14 and 17 ft–lb (19 and 23 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 (25) 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.

Assembly of the Impact Mechanism

1. Coat Hammer (40) with a light film of Ingersoll–Rand No. 100 Grease.
2. Replace Hammer in Hammer Frame (45) exactly as they were when you marked them prior to disassembly.

NOTICE

In order to utilize both impacting surfaces on the Hammer and thus equalize the wear on each hammer jaw, the Hammer can be flipped over so that the arrow is pointing downward.

3. Replace Hammer Pins (46).
4. Examine base of Anvil (48) and note its contour. While looking down through Hammer Frame, swing the 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 Hammer.

Assembly of the Impactool

1. Set assembled hammer mechanism onto rotor shaft spline.
2. Place Hammer Case Gasket (42) over mechanism and against face of Motor Housing.
3. Grease Anvil and top of Hammer Frame.
4. Place Hammer Case (40) over mechanism assembly against Gasket.
5. Install the Hammer Case Cap Screws (44) and Lock Washers (43) into Housing and using an alternating pattern for all four fasteners, tighten Screws between 20 and 25 ft–lb (27 and 34 Nm) torque.
6. Install a new Exhaust Silencer (56) in Exhaust Deflector (53) and install the Exhaust Baffle (54) in Deflector.
7. Position a new Exhaust Gasket (55) against face of the Motor Housing. Position the assembled Deflector against the Gasket and secure it by tightening the two Deflector Screws (57).

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.

NOTES

NOTES