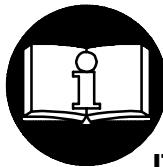


## OPERATION AND MAINTENANCE MANUAL FOR MODEL SRA010A1 RECIPROCATING SAW

### NOTICE

**Model SRA010A1 Reciprocating Saw is designed for general contracting and industrial maintenance applications which require irregular cuts in wood, composition board, pipe, conduits and downspouts.**

**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 5/16" (8 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 functioning end of tool.
- 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 accessories may continue to function 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.
- 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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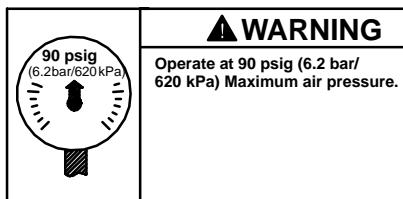
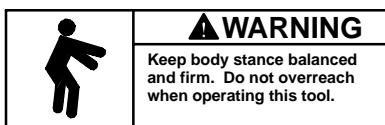
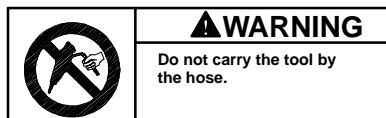
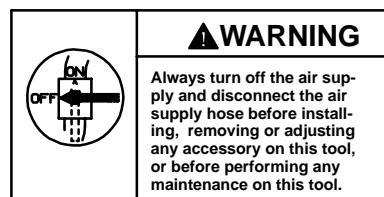
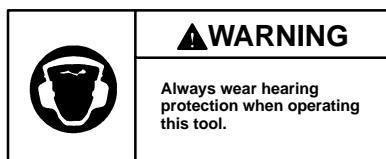
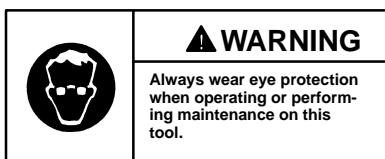
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## WARNING LABEL IDENTIFICATION

### **⚠ WARNING**

**FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.**



## PLACING TOOL IN SERVICE

### **LUBRICATION**



**Ingersoll-Rand No. 10    Ingersoll-Rand No. 28**



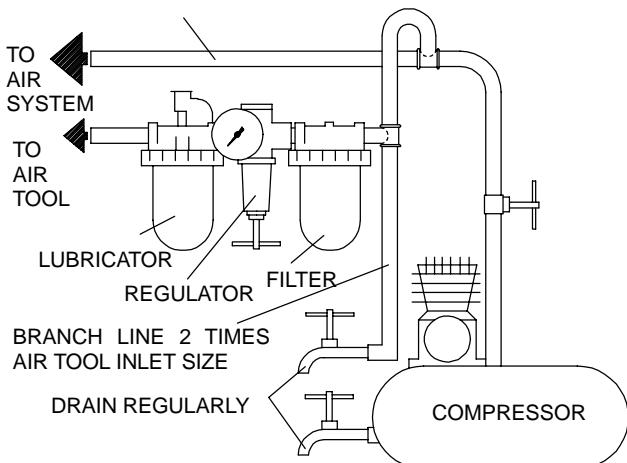
Always use an air line lubricator with these tools. We recommend the following Filter-Lubricator-Regulator Unit:

**For USA – No. C18-03-FKG0-28**

**Before starting the Saw and after each four hours of operation,** unless an air line lubricator is used, remove the Oil Chamber Plug and fill the chamber with Ingersoll-Rand No. 10 Oil.

**After each 200 hours of operation,** remove the Piston Housing Cover and inject about 0.7 cc of Ingersoll-Rand No. 28 Grease into the piston housing chamber.

MAIN LINES 3 TIMES  
AIR TOOL INLET SIZE



**(Dwg. TPD905-1)**

# PLACING TOOL IN SERVICE

## OPERATION

Make direct cuts into wood or comparable material as shown in the following illustrations:

1. Hold the saw as shown in Figure 1 with the Saw Guide firmly against the material and the tip of the Blade above the material. Press the Trigger.

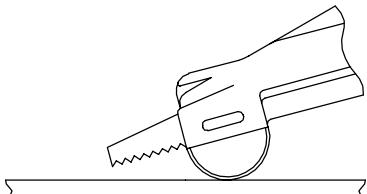


Figure 1

2. Raise the handle of the Saw, bringing the tip of the Blade in contact with the material. See Figure 2.

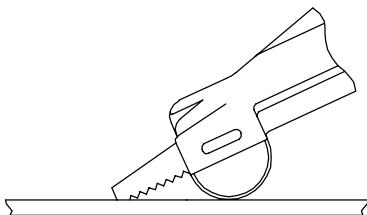


Figure 2

3. Raise the Saw slowly to an upright position, keeping the Saw Guide firmly against the material. Guide the Saw in this position along the direction of the cut.
4. When cutting metal from an edge, hold the Saw as shown in Figure 3, keeping the Saw Guide firmly against the work to prevent vibration of the metal and blade chattering. When making direct cuts into metal, first chisel or drill a starting hole.

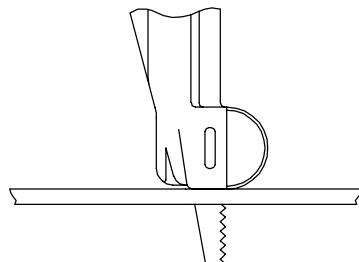


Figure 3 (Dwg. TPD1194)

## HOW TO ORDER A SAW

Model	Length of Stroke		Strokes per minute
	in	mm	
SRA010A1	5/8	16	1,600

# MANUEL D'EXPLOITATION ET D'ENTRETIEN DE LA SCIE ALTERNATIVE MODÈLE SRA010A1

## NOTE

La scie alternative Modèle SRA010A1 est destinée aux opérations d'entretien générales et industrielles nécessitant des coupes irrégulières dans le bois, les planches composites, les tuyauteries, les gaines et les conduites.

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 SÉCURITÉ SONT JOINTES.  
LIRE CE MANUEL AVANT D'UTILISER L'OUTIL.**

**L'EMPLOYEUR EST TENU DE 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 8 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 volatiles tels que le kérozène, le gasoil 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.
- 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.
- Les accessoires de l'outil peuvent continuer à fonctionner 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.
- 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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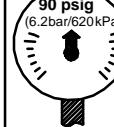
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# SIGNIFICATION DES ÉTIQUETTES D'AVERTISSEMENT

## ATTENTION

**LE NON RESPECT DES AVERTISSEMENTS SUIVANTS PEUT CAUSER DES BLESSURES.**

	<b>ATTENTION</b> Porter toujours des lunettes de protection pendant l'utilisation et l'entretien de cet outil.
	<b>ATTENTION</b> Porter toujours une protection acoustique pendant l'utilisation de cet outil.
	<b>ATTENTION</b> 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.
	<b>ATTENTION</b> 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.
	<b>ATTENTION</b> Garder une position équilibrée et ferme. Ne pas se pencher trop en avant pendant l'utilisation de cet outil.
	<b>ATTENTION</b> 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. 10   Ingersoll-Rand No. 28

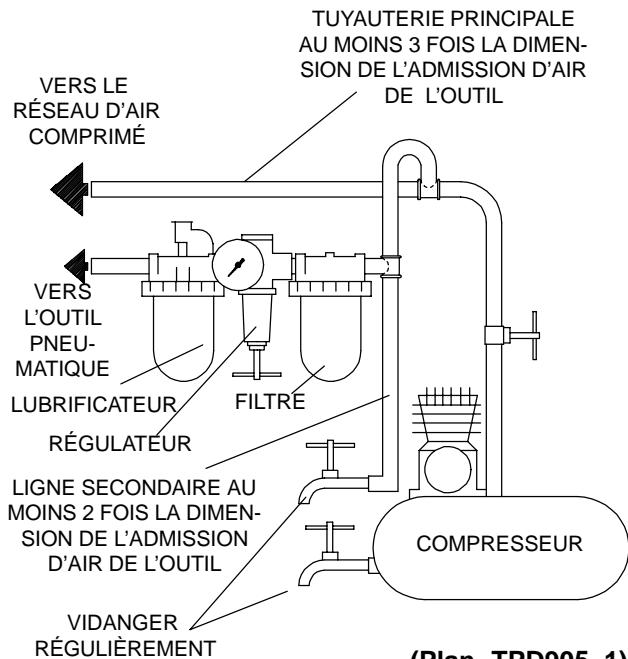


Utiliser toujours un lubrificateur avec ces outils. Nous recommandons l'emploi du filtre-régulateur-lubrificateur suivant :

É. U. – No. C18–03–FKG0–28

**Avant de mettre la scie en marche et toutes les quatre heures de fonctionnement, si un lubrificateur de ligne n'est pas utilisé, déposer le bouchon de la chambre d'huile et remplir cette dernière avec de l'huile Ingersoll-Rand No. 10.**

**Toutes les 200 heures de fonctionnement, déposer le couvercle du corps de piston et injecter environ 0,7 cm<sup>3</sup> de graisse Ingersoll-Rand No. 28 dans la chambre du corps.**



(Plan TPD905-1)

# MISE EN SERVICE DE L'OUTIL

## FONCTIONNEMENT

**Effectuer des coupes directes dans le bois ou dans des matériaux similaires comme indiqué dans les illustrations suivantes :**

1. Tenir la scie comme indiqué à la Figure 1, le guide de sciage étant fermement plaqué contre le matériau et la pointe de la lame étant au-dessus du matériau. Appuyer sur la gâchette.

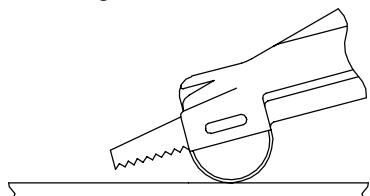


Figure 1

2. Soulever la poignée de la scie et amener la pointe de la lame en contact avec le matériau. Voir Figure 2.

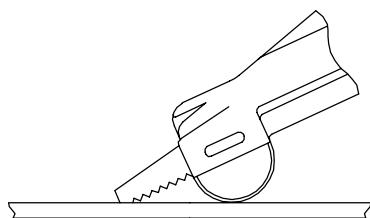


Figure 2

3. Soulever lentement la scie jusqu'à la position verticale, en maintenant le guide de sciage fermement plaqué contre le matériau. Guider la scie dans cette position en suivant la direction de la coupe.
4. Pour la coupe d'un métal à partir d'une arête, tenir la scie comme indiqué à la Figure 3 et maintenir le guide de sciage fermement appliquée contre la pièce pour éviter les vibrations du métal et le broutement de la lame. Pour effectuer une coupe directe dans du métal, réaliser tout d'abord un trou de départ avec un burin ou un foret.

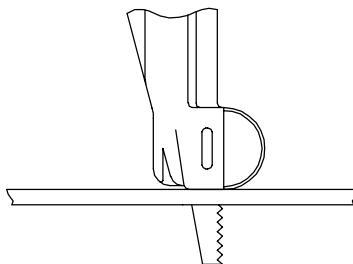


Figure 3 (Plan TPD1194)

## SPÉCIFICATIONS

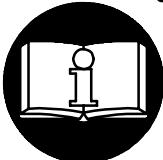
Modèle	Longueur de course		Courses par minute
	pouces	mm	
SRA010A1	5/8	16	1.600

# MANUAL DE FUNCIONAMIENTO Y MANTENIMIENTO PARA SIERRA ALTERNATIVA MODELO SRA010A1

## AVISO

La sierra alternativa modelo SRA010A1 está diseñada para aplicaciones de contratistas en general y mantenimiento industrial que requieran cortes irregulares de madera, tableros de composición, tuberías, conductos y canalones de desagüe.

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.



## NOTA

**SE ADJUNTA INFORMACIÓN IMPORTANTE DE SEGURIDAD.  
LEA ESTE MANUAL ANTES DE UTILIZAR LA HERRAMIENTA.**

**ES RESPONSABILIDAD DE LA EMPRESA ASEGURARSE DE QUE EL OPERARIO ESTÉ AL TANTO DE LA INFORMACIÓN QUE CONTIENE ESTE MANUAL.**

## EL HACER CASO OMISO DE LOS AVISOS SIGUIENTES PODRÍA 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 mayor seguridad, rendimiento óptimo y larga vida útil de las piezas, utilice esta herramienta a una presión de aire máxima de 90 psig (6,2 bar/620 kPa) con una manguera de suministro de aire con diámetro interno de 8 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 racores dañados, desgastados o deteriorados.
- Asegúrese de que todos los racores y mangueras sean del tamaño correcto y estén bien apretados. El Esq. TPD905-1 muestra una disposición característica de las tuberías.
- Use siempre aire limpio y seco a una presión máxima de 90 psig (6,2 bar/620 kPa). El polvo, los gases corrosivos y el exceso de humedad pueden 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.

## UTILIZACIÓN DE LA 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.
- Antípese y esté atento a los cambios repentinos en el movimiento durante la puesta en marcha y utilización de toda herramienta motorizada.
- Mantenga una postura del cuerpo equilibrada y firme. No estire demasiado los brazos al manejar la herramienta. Pueden darse elevados pares de reacción a la presión de aire recomendada, e incluso a presiones inferiores.
- Los accesorios pueden continuar funcionando después de soltar el estrangulador.
- Las herramientas neumáticas pueden vibrar durante el uso. La vibración, los movimientos repetitivos o las posiciones incómodas pueden dañarle los brazos y manos. En caso de incomodidad, sensación de hormigueo o dolor, deje de usar la herramienta. Consulte con el médico antes de volver a utilizarla.
- Utilice únicamente los accesorios Ingersoll-Rand recomendados.
- 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 puede 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 se deben encomendar a personal debidamente cualificado y autorizado. Consulte con el centro de servicio autorizado Ingersoll-Rand más próximo.

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

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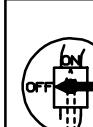
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## ETIQUETAS DE AVISO

### AVISO

#### EL HACER CASO OMISO DE LOS AVISOS SIGUIENTES PODRÍA OCASIONAR LESIONES.

	<b>ADVERTENCIA</b>	Use siempre protección ocular cuando utilice esta herramienta o realice operaciones de mantenimiento en la misma.
	<b>ADVERTENCIA</b>	Use siempre protección para los oídos cuando utilice esta herramienta.
	<b>ADVERTENCIA</b>	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.
	<b>ADVERTENCIA</b>	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.
	<b>ADVERTENCIA</b>	No coger la herramienta por la manguera para levantarla.
	<b>ADVERTENCIA</b>	No utilizar mangueras de aire y accesorios dañados, desgastados ni deteriorados.
	<b>ADVERTENCIA</b>	Manejar la herramienta a una presión de aire máxima de 90 psig (6,2 bar/620 kPa).

#### PARA PONER LA HERRAMIENTA EN SERVICIO

##### LUBRICACIÓN



Ingersoll-Rand N° 10



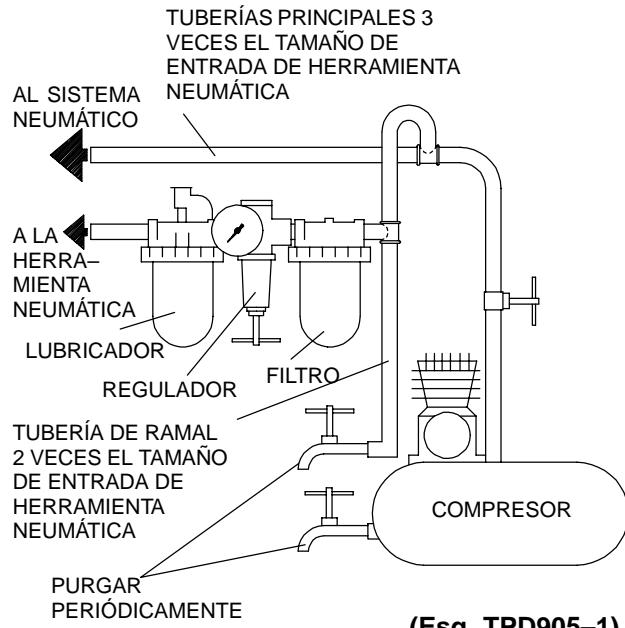
Ingersoll-Rand N° 28

Utilice siempre un lubricador de aire comprimido con estas herramientas. Recomendamos utilizar el siguiente conjunto de filtro-lubricador-regulador:

EE.UU. – No. C18-03-FKG0-28

**Antes de usar la sierra, y después de cada cuatro horas de funcionamiento,** a menos que se use un lubricante de línea de aire, saque el tapón de la cámara de aceite y llene dicha cámara de aceite Ingersoll-Rand N° 10.

**Después de cada 200 horas de funcionamiento,** saque la cubierta de la carcasa del pistón e inyecte unos 0.7 cc de grasa Ingersoll-Rand N° 28 en la cámara de la carcasa del pistón.



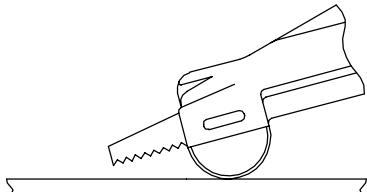
(Esq. TPD905-1)

## **PARA PONER LA HERRAMIENTA EN SERVICIO**

### **FUNCIONAMIENTO**

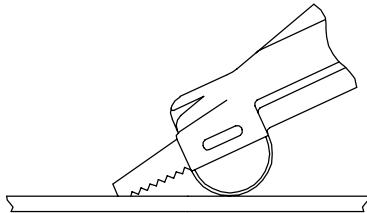
**Haga cortes directos en la madera o material comparable tal como se indica en las siguientes ilustraciones:**

1. Sujete la sierra tal como se muestra en la Figura 1, con la guía de la hoja de sierra presionada firmemente contra el material y la punta de la hoja sobresaliendo por encima del material. Apriete el gatillo.



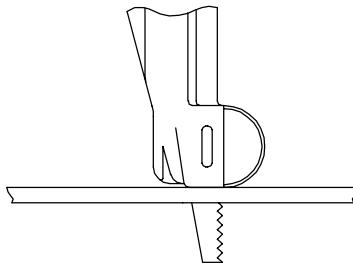
*Figura 1*

2. Levante la empuñadura de la sierra, y ponga la punta de la hoja de sierra en contacto con el material. Vea la Figura 2.



*Figura 2*

3. Levante lentamente la sierra hasta la posición vertical, manteniendo la guía de la hoja de sierra presionada firmemente contra el material. Guíe la sierra en esta posición a lo largo de la dirección del corte.
4. Cuando corte metal desde un borde, sujetela sierra tal como se indica en la Figura 3, manteniendo la guía de la hoja de sierra presionada firmemente contra el material a trabajar para evitar que vibre el metal y la hoja de la sierra haga ruido. Cuando realice cortes directos en metal, cincele o taladre primero un orificio de inicio.



*Figura 3*

(Esq. TPD1194)

### **ESPECIFICACIONES**

Modelo	Carrera		Carreras por minuto
	pulg.	mm	
SRA010A1	5/8	16	1.600

# MANUAL DE FUNCIONAMENTO E MANUTENÇÃO SERRAS ALTERNATIVAS MODELO SRA010A1

## AVISO

A Serra Alternativa Modelo SRA010A1 é concebida para aplicações de manutenção de empreitadas e indústrias em geral que necessitem cortes irregulares em madeira, tábua composta, tubagem, conduta e metalo-mecânica.

A Ingersoll-Rand não é responsável por modificações, feitas pelo cliente em ferramentas, nas quais a Ingersoll-Rand não tenha sido consultada.

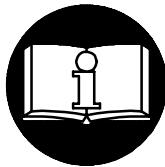
## ! ADVERTÊNCIA

### 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 SEGUINTE 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).
- Opere, inspecione e mantenha sempre esta ferramenta de acordo com todas regulamentações (local, estadual, federal e do país), que possam ser aplicadas às ferramentas pneumáticas operadas manualmente ou seguras com as mãos.
- 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 com 8 mm (5/16").
- 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.
- 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.
- Os acessórios da ferramenta podem continuar a girar brevemente após a pressão ter 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 formigueiro ou dor. Procure assistência médica antes de retornar ao trabalho.
- Use acessórios recomendados pela Ingersoll-Rand.
- Esta Ferramenta não foi concebida para trabalhos 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 SEGUINTE ADVERTÊNCIAS PODE RESULTAR EM FERIMENTOS.

	<b>ADVERTÊNCIA</b>	Use sempre óculos de protecção quando estiver operando ou executando algum serviço de manutenção nesta ferramenta.
	<b>ADVERTÊNCIA</b>	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 formigueiro ou dor. Procure assistência médica antes de retornar ao trabalho.
	<b>ADVERTÊNCIA</b>	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.
	<b>ADVERTÊNCIA</b>	Opere com pressão do ar Máxima de 90 psig (6,2–6,9 bar).
	<b>ADVERTÊNCIA</b>	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.
	<b>ADVERTÊNCIA</b>	Não use mangueiras de ar ou adaptadores danificados, gastos ou deteriorados.

## COLOCANDO A FERRAMENTA EM FUNCIONAMENTO

### LUBRIFICAÇÃO



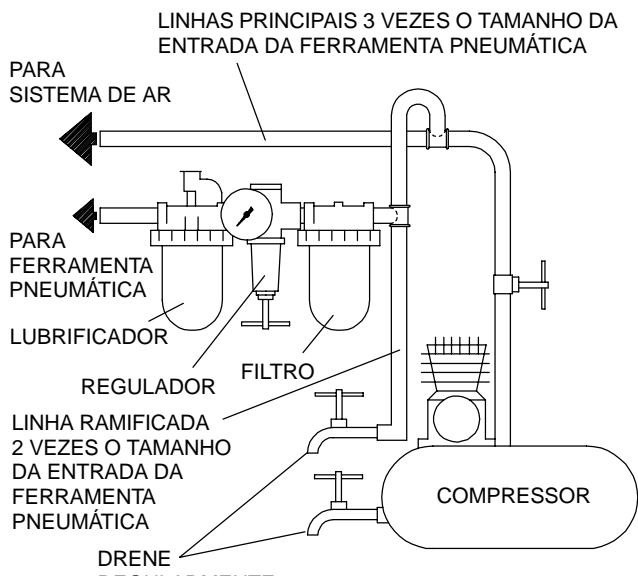
#### Ingersoll-Rand No. 10    Ingersoll-Rand No. 28

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

#### E.U.A. – No. C18-03-FKG0-28

**Antes de ligar a Serra e depois de cada quatro horas de operação,** a menos que um lubrificador de ar de linha estiver sendo usado, remova o Bujão da Câmara de Óleo e encha a câmara com Óleo Ingersoll-Rand No. 10.

**Depois de cada 200 horas de operação,** remova a Capa do Corpo do Pistão e injecte cerca de 0.7 cc de Ingersoll-Rand No. 28 na câmara do corpo do pistão.



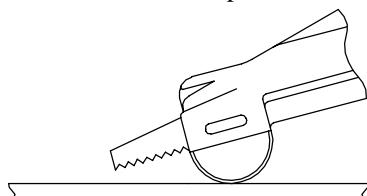
(Desenho TPD905-1)

# **COLOCANDO A FERRAMENTA EM FUNCIONAMENTO**

## **OPERAÇÃO**

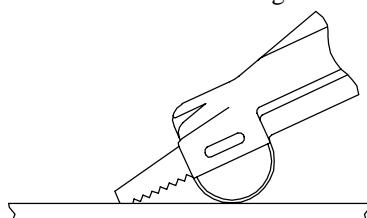
**Faça cortes directos na madeira ou material comparável como mostrado nas seguintes ilustrações:**

1. Segure a serra como mostrado na Figura 1 com o Guia da Serra firmemente contra o material e a ponta da Lâmina sobre o material. Aperte o Gatilho.



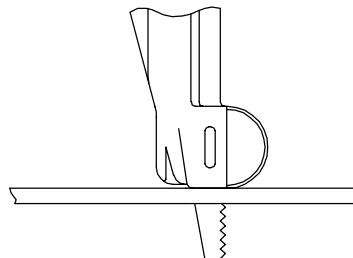
*Figura 1*

2. Erga o punho da Serra, trazendo a ponta da Lâmina em contacto com o material. Ver Figura 2.



*Figura 2*

3. Erga a Serra lentamente para uma posição vertical, mantendo o Guia da Serra firmemente contra o material. Conduza a Serra nesta posição ao longo da direcção do corte.
4. Quando cortar metal por uma das extremidades, segure a Serra como mostrado na Figura 3, mantenha o Guia da Serra firmemente contra o local a ser trabalhado para evitar vibração do metal e trepidação da lâmina. Quando fizer cortes directamente no metal, primeiro cinzele ou perfure um furo inicial.



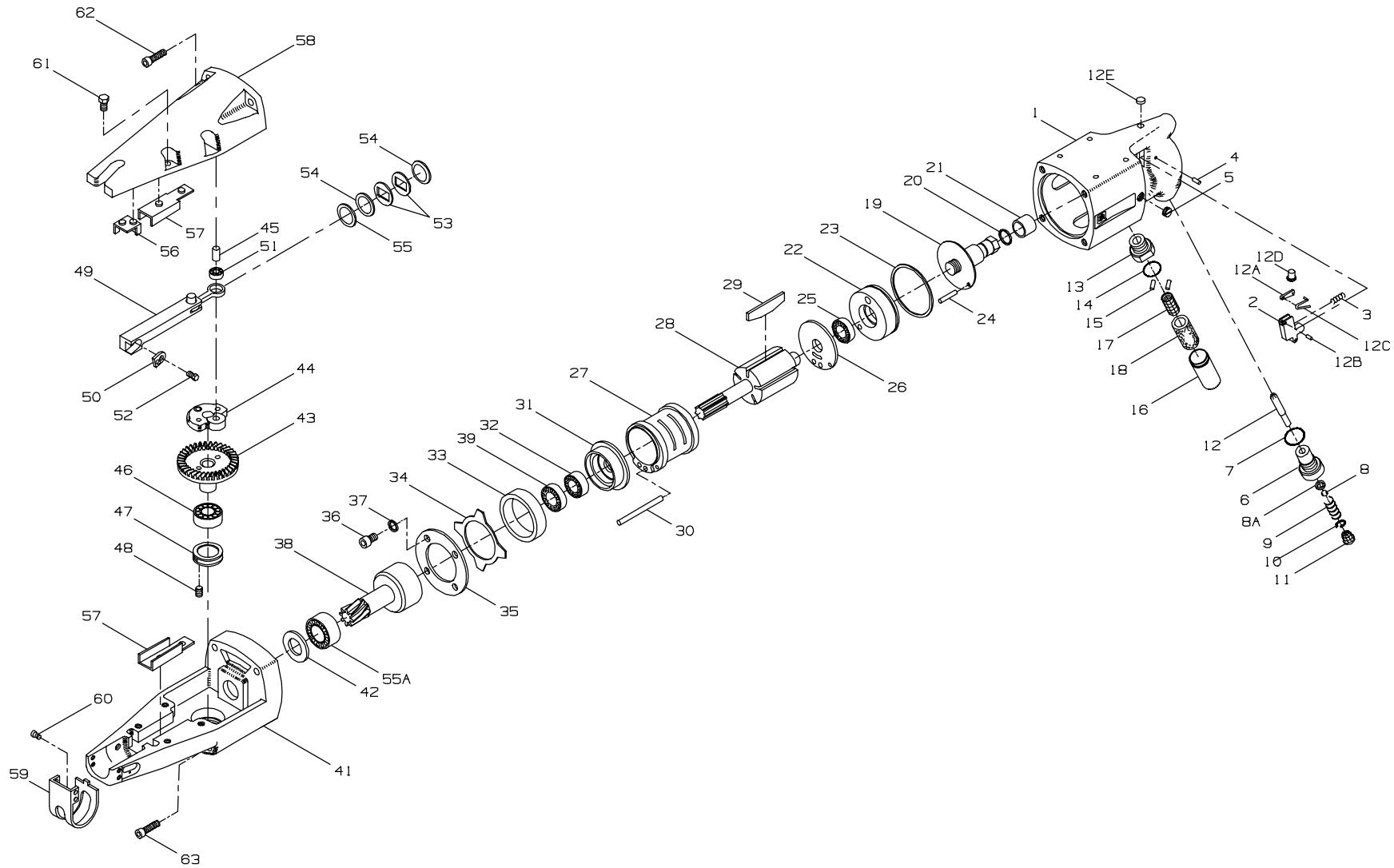
*Figura 3*

**(Desenho TPD1194)**

## **ESPECIFICAÇÕES**

<b>Modelo</b>	<b>Comprimento do Curso</b>		<b>Impactos por minuto</b>
	<b>mm</b>	<b>pol.</b>	
SRA010A1	16	5/8	1.600

## MAINTENANCE SECTION



(Dwg. TPB361-7)



## PART NUMBER FOR ORDERING

## PART NUMBER FOR ORDERING

+ 1	Motor Housing Assembly for models ending in -EU ... for all other models .....	SRA010A1-EU-A40A SRA010A1-A40A	13 ◆ 14 15 16 ◆ 17 ◆ 18 19 ◆ 20 ◆ 21 22 ◆ 23 24 • 25 • 26 • 27 • 28 • 29 30 • 31 • 32 33 ◆ 34 ◆ 35 ◆ 36 ◆ 37	Exhaust Muffler Assembly ..... Exhaust Deflector Adapter ..... Exhaust Deflector Seal ..... Exhaust Deflector Retaining Pin (2) ... Exhaust Deflector Assembly ..... Exhaust Deflector Screen ..... Exhaust Silencer ..... Motor Locating Screw Assembly ..... Locating Screw Seal ..... Locating Screw Cap ..... Motor Seat Assembly ..... Motor Seat Seal ..... Motor Seat Pin ..... Rear Rotor Bearing ..... Rear End Plate ..... Cylinder ..... Rotor ..... Vane Packet (set of 5 Vanes) ..... Cylinder Dowel ..... Front End Plate ..... Front Rotor Bearing ..... Motor Spacer ..... Motor Lock Plate ..... Lock Plate Support ..... Lock Plate Support Screw (4) (10-24) Socket Head Screw 5/8" long) ..... Support Screw Lock Washer (4) .....	SRA010A1-A212 SRA010A1-212 R18L4-14 D92-152 D92-A23 D92-175 D92-311 SRA010A1-A378 PS3-60 SRA010A1-597 SRA010A1-A110 M0V010AA-379 R00A-98 R0A2-22 R0A1-12 R0A1-3 R0A1H-53 R0A1-42-5 SRA010A1-98 R0A1-11 R1-22 SRA010A1-118 SRA010A1-207 SRA010A1-208 AL-638 4U-58
+ 2	Trigger .....	SRA010A1-93			
3	Trigger Spring .....	R00AR1C-268			
• 4	Trigger Pin .....	555-667			
5	Oil Chamber Plug .....	WF-109A			
• 6	Throttle Valve Bushing Assembly .....	SRA010A1-A76			
◆ 7	Throttle Valve Bushing Seal .....	AFH120A-358			
8	Valve Ball (5/16" dia. steel ball) .....	514-929-10			
8A	Throttle Valve Seat .....	5L-323			
9	Throttle Valve Spring .....	R00AR2C-515			
10	C-Clip .....	SRA010A1-28			
◆ 11	Air Strainer Screen .....	5RA-61			
12	Throttle Valve Plunger .....	SRA010A1-302			
+ 12A	Latch .....	SRA010A1-402			
+ 12B	Latch Pin .....	AF120-322			
+ 12C	Latch Spring .....	SRA010A1-403			
+ 12D	Latch Release Pin .....	SRA010A1-404			
+ 12E	Release Pin Button .....	R00AR2C-520			
*	Nameplate for models ending in -EU ... for all other models .....	SRA010A1-EU-301 SRA010A1-301			
*	Nameplate Screw (4) .....	C32-302			
*	Warning Label for models ending in -EU ... for all other models .....	EU-99 WARNING-7-99			

\* Not illustrated.

◆ Indicates Mechanism Tune-up Kit part.

- + The Motor Housing Assembly (1) currently used in the assembly of new saws, and which is furnished as a replacement, incorporates a Latch that engages the Trigger (2). This construction utilizes parts 12A, B, C, D and E along with a new style Trigger, none of which can be used in the previous style Housing. The new style Housing Assembly can be used as a replacement for the previous style. The Trigger for the previous style Housing remains available; order as Trigger Part No. 705-93. All other parts are the same for both style Housing Assemblies.
- 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

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**MAINTENANCE SECTION**

PART NUMBER FOR ORDERING		PART NUMBER FOR ORDERING			
• 38	Bevel Pinion .....	SRA010A1-552-25	• 56	Front Piston Guide .....	24402
• 39	Bevel Pinion Rear Bearing .....	4U-97	• 57	Rear Piston Guide (2) .....	24403
	Piston Housing Assembly .....	SRA010A1-A550	58	Piston Housing Cover .....	33680-P4
41	Piston Housing .....	5434-P4	59	Saw Guide .....	32137
42	Bearing Preload Spring .....	12E-278	• 60	Saw Guide Screw (8-32 x 1/4 Flat Head Pozi-Drive) (4) .....	103863
• 43	Bevel Gear Assembly .....	200036	61	Housing Cover Cap Screw (10-32 x 1/2 Hex Socket Head) (4) .....	SRA010A1-68
• 44	Eccentric .....	29646	62	Piston Housing Long Cap Screw (10-32 x 1-7/8 Hex Socket Head) (2) .....	SRA010A1-70
*	Pin (2) .....	105495	63	Piston Housing Short Cap Screw (10-32 x 1-3/8 Hex Socket Head) (2) .....	SRA010A1-69
• 45	Pivot Pin .....	104832	*	Hose Whip (8 ft length of 5/16" hose) .....	R0-130
*	Rivet .....	19622	*	Male Hose Nipple (5/16" hose to 1/4" male pipe) .....	AV1-46
• 46	Bevel Gear Bearing .....	5A-510	*	Female Hose Nipple (5/16" hose to 3/8" female pipe) .....	R1-47
47	Adjusting Screw Assembly .....	203241	*	Auxiliary Exhaust Plug .....	502-95
48	Adjusting Screw Lock Screw .....	105755	• *	Tune-up Kit (includes illustrated parts 7, 11, 14, 17, 18, 20, 21, 23, 29, 34, 35, 36 [4] and 37 [4]) .....	SRA010-TK1
• 49	Piston Assembly .....	36539			
• 50	Saw Blade Clamp .....	27358			
51	Connecting Rod Bearing .....	103536			
• 52	Clamp Screw (10-32 x 3/8 Button Head Socket Cap Screw) .....	FEA100-112			
• 53	Grease Seal (2) .....	24397-1			
• 54	Washer (2) .....	103458			
• 55	Spring Washer .....	103459			
• 55A	Bevel Pinion Front Bearing .....	105788			

- \* 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 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 the Model SRA010A1 Reciprocating Saw is disassembled for maintenance, repair or replacement of parts, lubricate the tool as follows:

1. Inject approximately 7 cc of Ingersoll-Rand No. 28 Grease into the Saw Head.
2. Fill the oil reservoir with Ingersoll-Rand No. 10 Oil.

### 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 Tool

1. Remove the Oil Chamber Plug (5) and allow as much of the oil to drain from the tool as possible before disassembly.
2. Clamp the Motor Housing Assembly (1) in leather-covered or copper-covered vise jaws, saw blade end up.
3. Separate the Piston Housing (41) from the Motor Housing by removing the two Piston Housing Long Cap Screws (62) and the two Piston Housing Short Cap Screws (63).

#### Disassembly of the Motor Housing Assembly

1. Remove the Bevel Pinion (38), Bearing Preload Spring (42), and the Bevel Pinion Front Bearing (40).
2. Unscrew the four Lock Plate Support Screws (36) to remove the Lock Plate Support (35), the Motor Lock Plate (34), and the Motor Spacer (33).

3. While protecting the splines of the Rotor (28), pull the motor assembly from the Motor Housing.
4. Remove the Motor Seat Assembly (22), Motor Seat Seal (23), and the Motor Seat Pin (24).
5. Remove the Motor Locating Screw Assembly (19), Locating Screw Seal (20), and the Locating Screw Cap (21).

#### Disassembly of the Motor Assembly

1. Remove the Cylinder Dowel (30).
2. Carefully press the Front End Plate (31) from the Rotor (28).
3. Remove the Cylinder (27). Remove the Vanes (29).
4. Press the Rear End Plate (26) from the Rotor.
5. Remove the Bevel Pinion Rear Bearing (39) and the Front Rotor Bearing (32) from the Front End Plate.
6. Remove the Rear Rotor Bearing (25) from the Rear End Plate.

#### Disassembly of the Throttle Mechanism

1. Clamp the Motor Housing Assembly (1) in leather-covered or copper-covered vise jaws, Exhaust Deflector Assembly (16) end up.
2. Drive out the two Exhaust Deflector Retaining Pins (15) to release the Exhaust Deflector Assembly (16).
3. Remove the Exhaust Silencer (18) and the Exhaust Deflector Screen (17) from the Exhaust Deflector.
4. Unscrew the Exhaust Deflector Adapter (13).
5. Work the Air Strainer Screen (11) from the Throttle Valve Bushing Assembly (6). Remove the Throttle Valve Spring Seat (10), the Throttle Valve Spring (9), and the Valve Ball (8). Unscrew the Throttle Valve Bushing Assembly (6).
6. Remove the Throttle Valve Plunger (12).
7. The Trigger Spring (3), Latch Pin (12B), Latch Spring (12C), and Latch (12) will fall free of the Trigger when it is removed from the Motor Housing. If required, remove the Trigger (2) by driving out the Trigger Pin (4).

#### Disassembly of the Piston Housing

1. Loosen the Adjusting Screw Lock Screw (48).
2. Unscrew the four Housing Cover Cap Screws (61) and remove the Piston Housing Cover (58).
3. Remove the Piston Assembly (49). If required, remove the Washers (54), Grease Seals (53), and the Spring Washer (55).
4. Remove the Bevel Gear Assembly (43), Bevel Gear Bearing (46), and the Adjusting Screw Assembly (47).

## MAINTENANCE SECTION

### 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. Unless otherwise noted, always press on the stamped end of a needle bearing when installing the needle bearing in a recess.
4. Whenever grasping a tool or part in a vise, always use leather-covered or copper-covered vise jaws. Take extra care with threaded parts and housings.
5. Always clean every part and wipe every part with a thin film of oil before installation.
6. Apply a film of O-ring lubricant to all O-rings before final assembly.
7. Check every bearing for roughness. If an open bearing must be cleaned, wash it thoroughly in a suitable cleaning solution and dry with a clean cloth. **Sealed or shielded bearings should never be cleaned.** Work grease thoroughly into every open bearing before installation.

#### Assembly of the Piston Housing

1. Replace the Adjusting Screw Assembly (47), Bevel Gear Bearing (46), and the Bevel Gear Assembly (43). If the Eccentric (44) was removed from the Bevel Gear, rivet it back onto the Bevel Gear.
2. Place a new Rear Piston Guide, channel up, tab to the rear, in the channel of the Piston Housing.
3. If required, place a new Connecting Rod Bearing (51), Spring Washer (55), Washers (54), and Grease Seals (53) onto the Piston Assembly (49).
4. Place the Piston Assembly into the Piston Guide with the Connecting Rod Bearing going over the Pivot Pin (45) in the Eccentric and the Washer/ Seal pack going into the slot in the channel.
5. Put the other Rear Piston Guide (57) and the Front Piston Guide (56) over the Piston Assembly.
6. Carefully install the Piston Housing Cover (58) and secure it with four Housing Cover Cap Screws (61).
7. If required, reinstall the Saw Guide (59) with four Saw Guide Screws (60).

#### Assembly of the Throttle Mechanism

1. Clamp the Motor Housing Assembly (1) in leather-covered or copper-covered vise jaws, Exhaust Deflector Assembly (16) end up.
2. Reinstall the Exhaust Deflector Adapter (13) into the Motor Housing Assembly (1). Place the Exhaust Deflector Screen (17) inside the Exhaust Silencer (18)

and the Exhaust Silencer inside the Exhaust Deflector Assembly (16).

3. Secure the Exhaust Deflector Assembly to the Exhaust Deflector Adapter with the two Exhaust Deflector Retaining Pins (15).
4. If required, reinstall the Trigger (2):
  - a. Place the Latch Release Pin (12D) through the slot in the handle for the Trigger and secure it with the Release Pin Button (12E).
  - b. Secure the Latch (12A) and Latch Spring (12C) to the Trigger with the Latch Pin (12B).
  - c. Place the Trigger Spring (3) through the trigger slot and into the spring recess.
  - d. Carefully place the Trigger into the trigger slot and secure it with the Trigger Pin (4).
5. Place the Throttle Valve Plunger (12), small end last, through the Throttle Valve Bushing bore and into the handle until it contacts the Trigger.
6. Secure the Throttle Valve Plunger with the Throttle Valve Bushing Assembly (6).
7. If required, reinstall the Throttle Valve Seat (8A), the Valve Ball (8), and the Throttle Valve Spring (9). Secure these parts with the Throttle Valve Spring Seat (10) and the Air Strainer Screen (11).

#### Assembly of the Motor Assembly

1. Place the Rear Rotor Bearing (25) into the Rear End Plate.
2. Place the Bevel Pinion Rear Bearing (39) and the Front Rotor Bearing (32) into the Front End Plate.
3. Press the Rear End Plate (26) onto the Rotor.
4. Replace the Cylinder (27). Replace the Vanes (29).
5. Carefully press the Front End Plate (31) onto the Rotor (28).
6. Replace the Cylinder Dowel (30).

#### Assembly of the Motor Housing Assembly

1. Press the Locking Screw Cap (21) into the Motor Housing Assembly (1).
2. Install the Motor Seat Pin (24) in the Motor Housing.
3. Carefully install the Motor Seat Assembly (22) into the motor bore making sure that the Motor Seat Pin (24) goes into the hole in the Motor Seat.
4. Carefully install the assembled motor, splined end trailing, making sure that the motor doesn't jamb in the bore.
5. Place the Motor Spacer (33) over the splined end of the motor
6. Secure the Motor with the Motor Lock Plate (34), Lock Plate Support (35), and four Support Screw Lock Washers (37) and Lock Plate Support Screws (36).

## **MAINTENANCE SECTION**

### **Assembly of the Tool**

1. If required, replace the Bearing Preload Spring (42) and the Bevel Pinion Front Bearing (40).
2. Place the Bevel Pinion, geared end first, into the Piston Housing Assembly (41).
3. Make sure that the bevel gears engage by pressing the Bevel Pinion into the Housing hard and turning. If they make contact, the saw blade end of the Piston Assembly (49) will move. If there is no movement, turn the Adjusting Screw Assembly (47) into the Housing while turning the Gear.
4. Rotate the Motor Locating Screw (19) until the Bevel Pinion (38) protrudes 1-7/32" (31 mm) beyond the face of the Motor Housing (1).

5. Secure the Piston Housing to the Motor Housing by tightening two Piston Housing Long Cap Screws (62) and two Piston Housing Short Cap Screws (63).
6. Once the Tool is properly assembled and lubricated:
  - a. Run the tool and tighten or loosen the Adjusting Screw Assembly to get the proper bevel gear engagement.
  - b. Slowly rotate the Adjusting Screw until the tool runs quietly and there is no apparent gear whine.
  - c. Shut the tool off and tighten the Adjusting Screw Lock (48).

## MAINTENANCE SECTION

<b>TROUBLESHOOTING GUIDE</b>		
<b>Trouble</b>	<b>Probable Cause</b>	<b>Solution</b>
Low power or low free speed	Dirty Inlet Bushing or Air Strainer Screen and/or Exhaust Silencer	Using a clean, suitable, cleaning solution in a well-ventilated area, clean the Air Strainer Screen, Inlet Bushing and Exhaust Silencer. Allow to air dry.
	Worn or broken Vanes	Replace <b>complete</b> 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 low power scored.
	Dirty motor parts	Disassemble the tool and clean all parts with a clean, suitable, cleaning solution, in a well-ventilated area. Reassemble the tool as instructed in this manual.
Motor will not run	Incorrect assembly of motor	Disassemble motor, replace worn or broken parts and reassemble as instructed.
Rough operation	Worn or broken Front or Rear Rotor Bearing	Examine each bearing. Replace if worn or damaged.
	Worn or broken gear teeth	Check for worn or broken Bevel Gear. If replacement is necessary, install both the Bevel Gear and Pinion. They are a matched set and must not be mismatched.
Air leaks	Worn Valve Seat or Valve Seat Washer	Replace worn parts.
	Worn Throttle Valve Seal	Replace Seal.
	Oil Chamber Plug worn or not tight	Tighten the Plug. If the problem persists, replace the Plug.
Piston Housing gets hot	Insufficient grease	Clean and inspect the Piston Housing, gearing, and parts and lubricate as instructed in <b>LUBRICATION</b> .
	Worn or damaged parts	Clean and inspect the Piston Housing and gearing. Replace worn or broken components.

### NOTICE

**SAVE THESE INSTRUCTIONS. DO NOT DESTROY.**