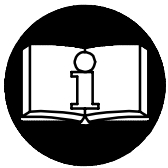


OPERATION AND MAINTENANCE MANUAL FOR MODEL 7802S HEAVY DUTY SHEAR

NOTICE

The Model 7802S Air Shear is designed to cut cold rolled steel up to 20 gauge without chips. It has many applications in body shops, sheet metal shops, air conditioning fabricators, plastic fabricators, heating contractors and machine shops. Ingersoll-Rand is not responsible for customer modification of tools for applications on which Ingersoll-Rand was not consulted.



WARNING

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

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

PLACING TOOL IN SERVICE

- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code for Portable Air Tools (ANSI B186.1).
- For safety, top performance, and maximum durability of parts, operate this tool at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet with 3/8" (10 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 (6.2 bar/620 kPa) 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.
- 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 oscillate 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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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.



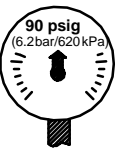
⚠ WARNING
Do not carry the tool by the hose.



⚠ 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



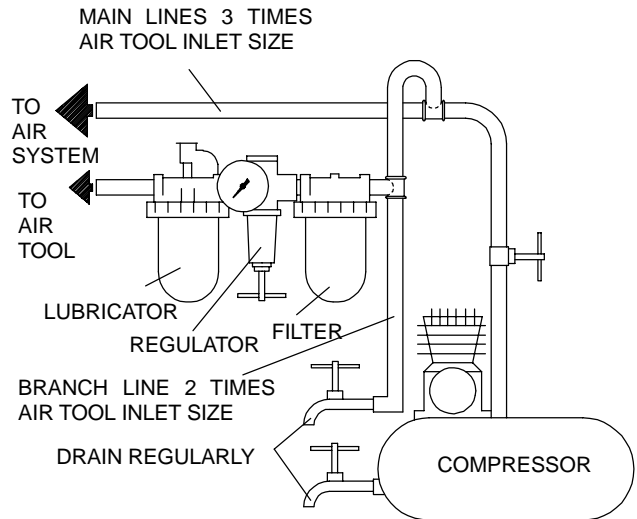
Ingersoll-Rand No. 28

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

For USA - No C28-04-FKG0-28

After each two hours of operation, unless an air-line lubricator is used, inject 1/2 cc of Ingersoll-Rand No. 50 Oil into (2) before attaching the hose.

Periodically, inject several drops of Ingersoll-Rand No. 10 Oil around the blade pivot point.



(Dwg. TPD905-1)

SPECIFICATIONS

Model	Strokes per Minute	Max. Material Thickness
7802S	4,200	20 Ga.

NOTE

La cisaille pneumatique Modèle 7802S est destinée à la coupe de l'acier laminé à froid sans écaille jusqu'à une épaisseur de jauge 20. Elle a de nombreuses applications dans les ateliers de carrosserie, les ateliers de tôlerie, les fabricants de d'équipements de climatisation, les fabricants de plastique, les entrepreneurs de chauffage et les ateliers d'usinage.

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 10 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 (620 kPa). La poussière, les fumées corrosives et/ou une humidité excessive peuvent endommager le moteur d'un outil pneumatique.
- Ne jamais lubrifier les outils avec des liquides inflammables ou volatils tels que le kérosène, le gasol ou le carburant d'aviation.
- Ne retirer aucune étiquette. Remplacer toute étiquette endommagée.

UTILISATION DE L'OUTIL

- Porter toujours des lunettes de protection pendant l'utilisation et l'entretien de cet outil.
- Porter toujours une protection acoustique pendant l'utilisation de cet outil.
- Tenir les mains, les vêtements flous et les cheveux longs, éloignés de l'extrémité rotative de l'outil.
- 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.
- L'oscillation des accessoires de l'outil peut continuer pendant un certain temps après le relâchement de la gâchette.
- Les outils pneumatiques peuvent vibrer pendant l'exploitation. Les vibrations, les mouvements répétitifs et les positions inconfortables peuvent causer des douleurs dans les mains et les bras. N'utiliser plus d'outils en cas d'inconfort, de picotements ou de douleurs. Consulter un médecin avant de recommencer à utiliser l'outil.
- Utiliser les accessoires recommandés par Ingersoll-Rand.
- 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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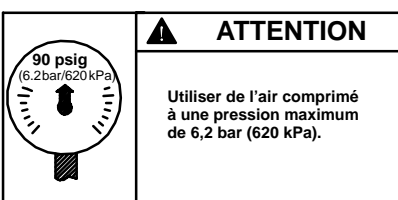
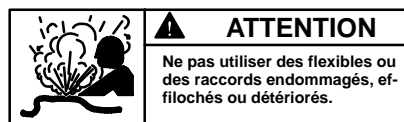
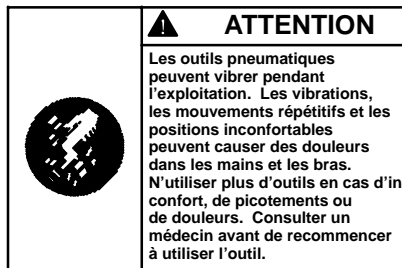
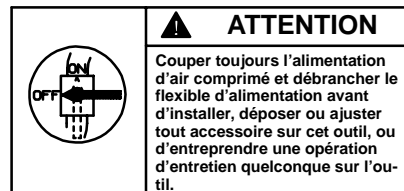
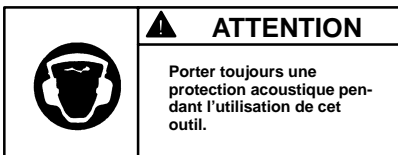
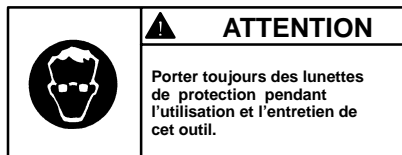
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SIGNIFICATION DES ÉTIQUETTES D'AVERTISSEMENT

ATTENTION

LE NON RESPECT DES AVERTISSEMENTS SUIVANTS PEUT CAUSER DES BLESSURES.



MISE EN SERVICE DE L'OUTIL

LUBRIFICATION



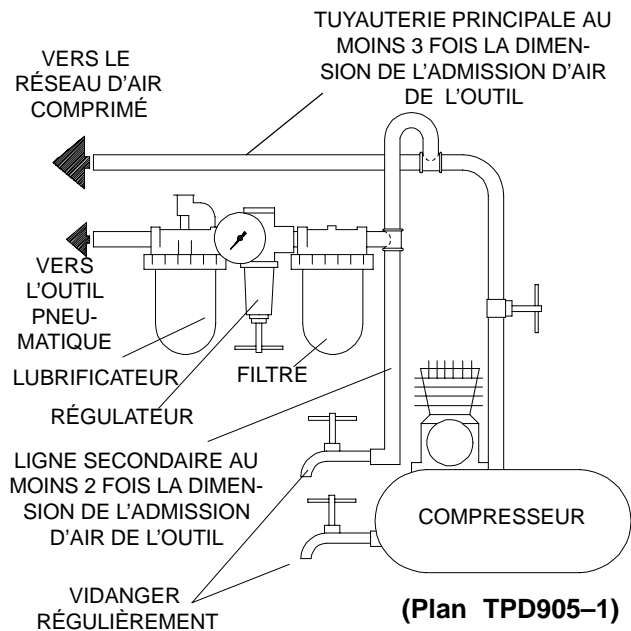
Ingersoll-Rand No. 50 Ingersoll-Rand No. 67

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

For USA – No. C28-04-FKG0-28

Toutes les huit heures de fonctionnement, sauf si un lubrificateur d'air comprimé est utilisé, injecter 1/2 cm³ d'huile Ingersoll-Rand No. 50 dans (9) avant de connecter le flexible.

Périodiquement, injecter plusieurs gouttes d'huiles Ingersoll-Rand No. 10 autour du point d'articulation de la lame.



SPÉCIFICATIONS

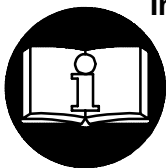
Modèle	Courses/mn	Épaisseur Maximum du Matériau (calibre)
7802S	4.200	20 Ga.

MANUAL DE USO Y MANTENIMIENTO PARA LA CIZALLA DE SERVICIO PESADO MODELO 7802S

NOTA

La cizalla neumática modelo 7802S está diseñada para cortar acero laminado en frío de hasta 1,25 mm sin formación de viruta. Tiene varios usos en talleres de carrocería y de chapa, para corte de conductos metálicos para aire acondicionado, corte de láminas de plástico, instalaciones de calefacción y talleres de maquinaria.

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 INFORMACIÓN IMPORTANTE DE SEGURIDAD.
LEA ESTE MANUAL ANTES DE USAR 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 10 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 ni 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.
- Anticipe 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 ocurrir elevados pares de reacción a la presión recomendada de aire, e incluso a presiones inferiores.
- El vástago puede continuar oscilando después de haberse soltado el estrangulador.
- Las herramientas neumáticas pueden vibrar durante el uso. La vibración, los movimientos repetitivos y 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 recomendados por Ingersoll-Rand.
- 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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ETIQUETAS DE AVISO

⚠ AVISO

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




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




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




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




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




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



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



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



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

PARA PONER LA HERRAMIENTA EN SERVICIO

LUBRICACIÓN



Ingersoll-Rand N° 50



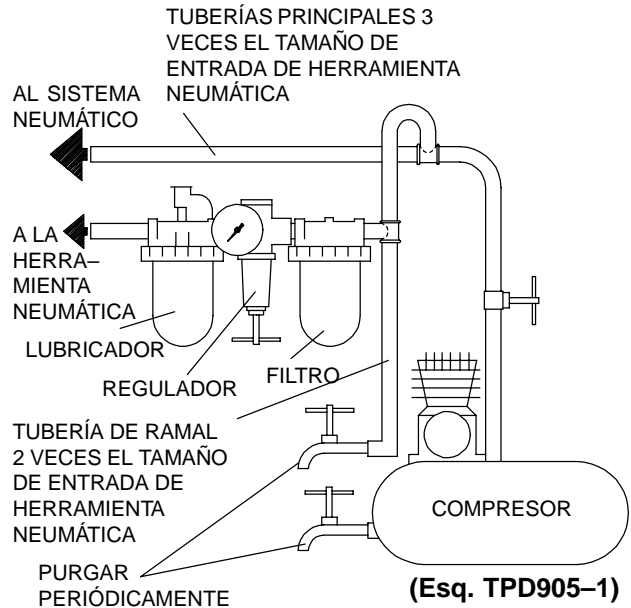
Ingersoll Rand N° 67

Use siempre un lubricante de aire con esta herramienta. Recomendamos el siguiente conjunto de filtro-lubricador-regulador:

For USA – No. C28-04-FKG0-28

Después de cada ocho horas de funcionamiento, a menos que se use un lubricador de línea de aire, inyecte 1/2 cc de aceite Ingersoll-Rand N° 50 en (9) antes de acoplar la manguera.

Periódicamente se debe inyectar varias gotas de aceite Ingersoll-Rand n° 10 alrededor del punto de articulación de la hoja.



ESPECIFICACIONES

Modelo	Carreras por minuto	Espesor Máximo (calibre) del material
7802S	4.200	20 Ga.

MANUAL DE FUNCIONAMENTO E MANUTENÇÃO PARA A TESOURA MECÂNICA MODELO 7802S

P

AVISO

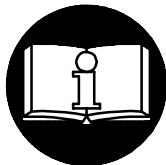
A Tesoura Pneumática Modelo 7802S é concebida para cortar aço laminado a frio até ao calibre 20 sem lascas. Tem muitas aplicações em oficinas de carroçaria, oficinas de chapas metálicas, fabricantes de ar condicionado, fabricantes de plástico, empreiteiros de aquecimento e oficinas de máquinas.

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).
- 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 10 mm (3/8”).
- 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 6,2 bar/620 kPa (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.
- O eixo da ferramenta pode 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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IDENTIFICAÇÃO DO RÓTULO DE ADVERTÊNCIA

▲ ADVERTÊNCIA

O NÃO CUMPRIMENTO DAS SEGUINTE ADVERTÊNCIAS PODE RESULTAR EM FERIMENTOS.



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




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



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




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



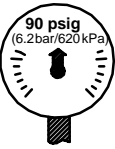
▲ ADVERTÊNCIA
Não carregue a ferramenta segurando na mangueira.



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



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



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

COLOCANDO A FERRAMENTA EM FUNCIONAMENTO

LUBRIFICAÇÃO

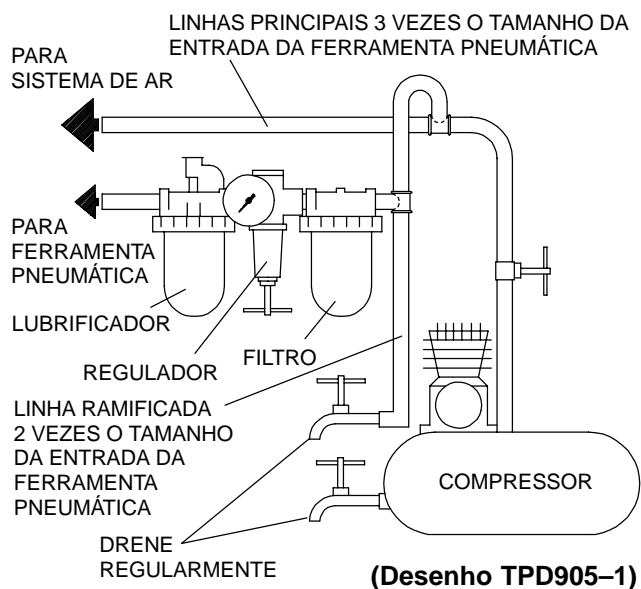


Ingersoll-Rand No. 10 Ingersoll-Rand No. 28

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

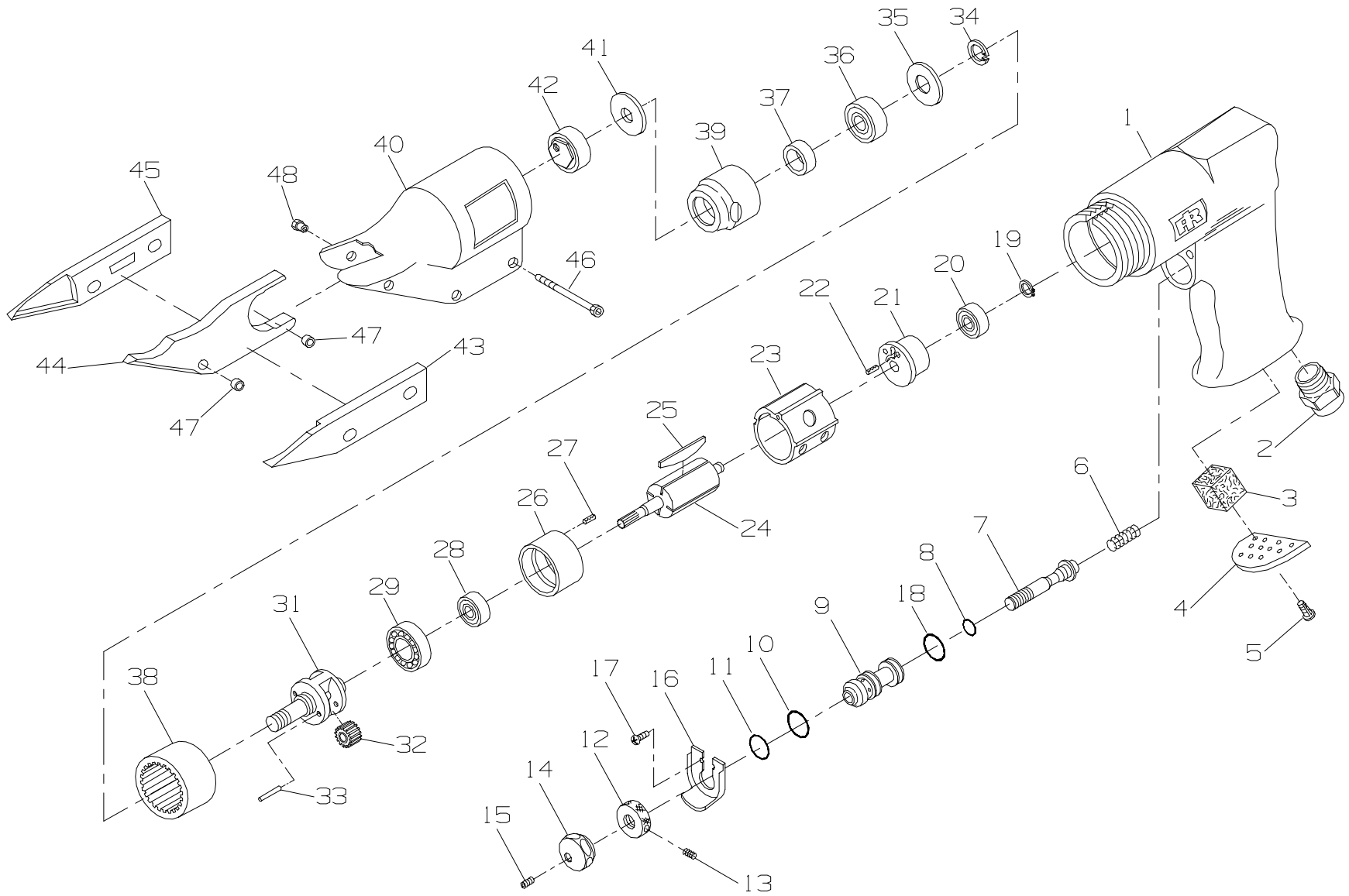
For USA – No. C28-04-FKG0-28

Depois de oito horas de operação, a menos que um lubrificador de ar de linha estiver sendo usado, injecte 1/2 cc de Óleo Ingersoll-Rand No. 50 na entrada de ar antes de ligar a mangueira.



ESPECIFICAÇÕES

Modelo	Batidas por minuto	Grossura Máxima do material (calibre)
7802S	4.200	20 Ga.



MAINTENANCE SECTION

(Dwg. TPB784)



PART NUMBER FOR ORDERING

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1	Motor Housing	7802-40	◆	28	Front Rotor Bearing	107-97
*	Warning Label	7802-100		29	Rear Spindle Bearing	7802-509
2	Inlet Bushing	7802-465		31	Spindle	7802-8
◆	3 Muffler Element	7802-311	◇	32	Spindle Planet Gear (2)	7802-10
4	Exhaust Silencer	7802-23		33	Planet Gear Shaft (2)	7802-191
5	Exhaust Silencer Screw	7802-262		34	Grease Shield Retainer	7802-28
◆	6 Throttle Valve Spring	7802-51	◆	35	Grease Shield	7802-701
7	Throttle Valve Assembly	7802-A94		36	Front Spindle Bearing Kit	7802-K510
◆	8 Throttle Valve Seal	308-159		37	Spacer	7802-90
9	Throttle Valve Bushing Assembly	7802-A91		38	Ring Gear	7802-406
◆	10 Valve Bushing Seal	7802-291		39	Gear Case Housing	7802-27
◆	11 Valve Bushing Seal	7802-290		40	Shear Attachment	7802S-K1
12	Speed Regulator	7802-249		41	Washer	7802S-6025
13	Regulator Setscrew	7802-67		42	Eccentric Driver	7802S-6024
14	Trigger	7802-93		43	Left Blade	7802S-6022L
15	Trigger Setscrew	7802-68		44	Center Blade	7802S-6021
16	Trigger Shield	7802-300		45	Right Blade	7802S-6022R
17	Trigger Shield Screw (2)	7802-299		46	Cap Screw (3)	7802S-6028
◆	18 Valve Bushing Seal	7802-291		47	Spacer Bushing (2)	7802S-6027
◆	19 Rear Rotor Bearing Retainer	7802-118		48	Cap Screw Nut (3)	7802S-6031
◆	20 Rear Rotor Bearing	107-24		*	Cap Screw Wrench	7802S-6029
21	Rear End Plate Assembly	7802-A12		*	Nameplate	7802S-301
22	End Plate Dowel	308-98		*	Nameplate Drive Screw (2)	222-302
23	Cylinder	7802-3		*	Planet Gear Bearing Kit	7802-K10
24	Rotor	7802-53		*	Tune-up Kit (includes illustrated items 3, 6, 8, 10, 11, 18, 19, 20, 25, 28 and 35)	7802-TK1
◆	25 Vane Packet (set of 4 Vanes)	7802-42-4				
26	Front End Plate Assembly	7802-A11				
27	End Plate Dowel	308-98				

MAINTENANCE SECTION

* Not illustrated.

◆ Indicates Tune-up Kit part.

◇ When replacing the Spindle Planet Gear (32) you must order a Planet Gear Bearing Kit No. 7802-K10. The Planet Gear Bearing Kit includes 22 needle rollers and four retaining washers, enough for two gears. Also replace Planet Gear Shaft (33). **IMPORTANT: Do not** mix used gears with new needle rollers or new gears with used needle rollers.

MAINTENANCE SECTION

WARNING

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

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

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 or tool 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.
5. Do not press any needle bearing from a part unless you have a new needle bearing on hand for installation. Needle bearings are always damaged during the removal process.

Disassembly of the Shear Head and Gearing

1. Using a hex wrench, loosen the three Cap Screws (46) and pull the Shear Attachment (40) off the Gear Case Housing (39).
2. Using a wrench on the flats of the Gear Case, loosen and carefully separate the Gear Case and assembled Spindle (31) from the Motor Housing (1).
3. Carefully grasp the Spindle and unscrew the Eccentric Driver (42) from the other end. Remove the Washer (41) and pull the Spindle out the motor end of the Gear Case.
4. Pull the Grease Shield (35), Front Spindle Bearing Kit (36) and Spacer (37) out of the Gear Case.
5. Pull the Rear Spindle Bearing (29) of the rear hub of the Spindle.
6. Using snap ring pliers, remove the Grease Shield Retainer (34) from the hub of the Spindle and pull the two Spindle Planet Gears (32) out of the Spindle.

Disassembly of the Motor

1. Pull the Ring Gear (38) out of the Motor Housing (1).
2. Holding the Motor Housing vertically with the motor opening down, strike it lightly against the wooden

surface of a workbench to jar the motor free. Grasp the splined end of the Rotor (24) and pull the entire motor from the Housing.

3. Pull the Front End Plate Assembly (26) and Front Rotor Bearing (28) off the Rotor.
4. Remove the Front Rotor Bearing from the Front End Plate.
5. Lift off the Cylinder (23).
6. Remove the Vanes (16). Clean and inspect each Vane for cracked, chipped or burned edges. If any Vane needs replacement, replace the entire set.
7. If the Rear Rotor Bearing (20) must be replaced, remove the Rear Rotor Bearing Retainer (12) and pull the Bearing and the Rear End Plate Assembly (21) off the Rotor.

Disassembly of the Throttle Mechanism

1. Using a screwdriver, remove the two Trigger Shield Screws (17) and pull the assembled trigger mechanism out of the Motor Housing (1). Slide the Trigger Shield (16) off the trigger mechanism.
2. Remove the Throttle Valve Spring (6) from the Housing.
3. Holding the Throttle Valve Assembly (7), unscrew the Trigger (14) from the Valve.
4. Using a hex wrench, loosen the Regulator Setscrew (13) and unscrew the Speed Regulator (12) from the Throttle Valve.
5. Pull the Throttle Valve out of the Throttle Valve Bushing (9).

ASSEMBLY

General Instructions

1. Always press on the **inner** ring of a ball-type bearing when installing the bearing on a shaft.
2. Always press on the **outer** ring of a ball-type bearing when pressing the bearing into a bearing recess.
3. Whenever grasping a tool or part in a vise, always use leather-covered or copper-covered vise jaws. Take extra care not to damage threads or distort housings.
4. Always clean every part and wipe every part with a thin film of oil before installation.
5. Check every bearing for roughness. If an open bearing must be cleaned, wash it thoroughly in a clean, suitable, cleaning solution and dry with a clean cloth. **Sealed or shielded bearings should not be cleaned.** Work grease into every open bearing before installation.
6. Apply a film of O-ring lubricant to every O-ring before installation.

MAINTENANCE SECTION

Assembly of the Trigger Mechanism

1. Install the three Valve Bushing Seals (10, 11 and 18) in the grooves on the Throttle Valve Bushing (9).
2. Install the Throttle Valve Seal (8) in the groove on the Throttle Valve (7).
3. Insert the Throttle Valve, threaded end leading, into the end of the Throttle Valve Bushing. Start the Valve into the end of the Bushing farthest from the radial holes.
4. Thread the Speed Regulator (12) onto the threaded shaft of the Throttle Valve.
5. Thread the Trigger (14) onto the threaded shaft of the Throttle Valve until the Trigger Setscrew (15) stops against the end of the valve shaft.
6. Encircle the small hub of the Throttle Valve with the Throttle Valve Spring (6) and insert the assembly, Spring first, into the throttle hole in the Motor Housing (1).
7. Slide the Trigger Shield (16) onto the shaft of the Throttle Valve between the Bushing and the Speed Regulator. Position the Shield on the hub of the Bushing and against the Housing and secure it by installing the two Trigger Shield Screws (17).
8. Thread the Speed Regulator to the desired position and tighten the Regulator Setscrew (13) with a hex wrench.

Assembly of the Motor

NOTICE

Before reassembly, check the Rotor, Cylinder and faces of the End Plates for scoring. Minor scoring can be smoothed over with a fine emery cloth. Make certain all parts are clean and free of dirt and grit. Work a little Ingersoll–Rand No. 28 Grease into the gear train, Rear Rotor Bearing and Front Rotor Bearing. Coat the Vanes, Rotor, End Plates and Cylinder bore with a light coat of the Ingersoll–Rand No. 10 Oil.

1. Press the Rear Rotor Bearing (20) into the Rear End Plate (21).
2. Place the Rear End Plate, Bearing trailing, onto the shaft of the Rotor (24) without the spline. Install the Rear Rotor Bearing Retainer (19) in the groove on the rotor hub to retain the Bearing and End Plate.
3. Place a Vane (25) in each slot of the Rotor.
4. Slide the Cylinder (23) over the splined end of the Rotor until the cylinder alignment groove engages the End Plate Dowel (22) in the Rear End Plate.
5. Install the Front End Plate (26) onto the splined hub of the Rotor until it contacts the Cylinder. Make certain the cylinder alignment groove engages the End Plate Dowel (27) in the Front End Plate (26).

6. With the Rotor standing on the hub with the Rear Rotor Bearing, press the Front Rotor Bearing onto the splined rotor hub and into the Front End Plate.
7. Slide the assembled motor into the Motor Housing (1). Using a soft hammer, lightly tap the splined end of the Rotor to seat the Motor into the Motor Housing.
8. Install the Ring Gear (38) in the Motor Housing.

Assembly of the Shear Head and Gearing

1. If the Spindle Planet Gears (32) are being replaced, proceed as follows:
 - a. Stand the Spindle Planet Gear upright on a smooth surface and insert one of the retaining washers into the Gear.
 - b. Grind or cut one of the old Planet Gear Shafts (33) to equal the length of the Gear.
 - c. Stand the old, shortened Shaft upright in the center of the Gear and place the eleven rollers inside the Gear around the Shaft.
 - d. Place the second retaining washer on top of the rollers encircling the Shaft.
 - e. Without loosening the washers, position the assembly inside the Spindle (31).
 - f. Use a new, longer Planet Gear Shaft to push out the shortened Shaft and capture the assembly inside the frame of the Spindle.
 - g. Repeat the procedure for the other Planet Gear.
2. Press the Rear Spindle Bearing (29) onto the short hub of the Spindle.
3. Install the Grease Shield Retainer (34) in the groove on the shaft of the Spindle.
4. Install the Front Spindle Bearing Spacer (37), Front Spindle Bearing (36) and Grease Shield (35) in the Gear Case Housing (39).
5. Insert the threaded end of the assembled Spindle through the Bearing and Gear Case Housing.
6. Place the Washer (41) on the Spindle against the Gear Case and thread the Eccentric Driver (42) onto the threaded shaft of the Spindle.
7. Grasp the Eccentric Driver of the assembled Spindle and insert the assembly into the Ring Gear and Motor Housing. Make certain the Spindle engages the spline of the Rotor and the Planet Gears engage the Ring Gear without binding.
8. When the components mesh without binding, thread the Gear Case onto the Motor Housing and tighten it securely.
9. Position the assembled Shear Attachment (40) on the hub of the Gear Case. Make certain the hex on the Driver is properly positioned to engage the Center Blade (44).
10. When the Shear Attachment is properly positioned, tighten the three Cap Screws (46) that hold the Housing in position.

MAINTENANCE SECTION

TROUBLESHOOTING GUIDE		
Trouble	Probable Cause	Solution
Loss of power	Low air pressure	Check the air supply. For top performance, the air pressure must be 90 psig (6.2 bar/620 kPa) at the inlet of the tool.
	Clogged Inlet Bushing	Clean the Inlet Bushing in a clean, suitable, cleaning solution. If it cannot be cleaned, replace it.
	Worn or broken Vanes	Replace the complete set of Vanes.
	Worn or broken Cylinder	Replace the Cylinder if it is cracked or if the bore appears wavy or scored.
	Improper lubrication or dirt build-up	Clean the motor unit parts and lubricate as instructed.
Leaky Throttle Valve	Worn Throttle Valve	Install a new Throttle Valve.
	Dirt accumulation on Throttle Valve	Pour about 3 cc of a clean, suitable, cleaning solution in the air inlet and operate the tool for about 30 seconds. Immediately pour 3 cc of Ingersoll-Rand No. 10 Oil into the inlet and operate the tool for 30 seconds to lubricate all the cleaned parts.
Housing gets hot	Excessive grease	Clean and inspect the gearing parts and lubricate as instructed.
	Worn or damaged parts	Clean and inspect the gearing parts. Replace worn or broken components.
Blades do not cut	Worn Eccentric Driver	Replace the Eccentric Driver.
	Dull cutters	Sharpen or replace the Cutter Blades.

NOTICE

SAVE THESE INSTRUCTIONS. DO NOT DESTROY.

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