

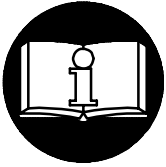
INSTRUCTIONS FOR MODEL 2131FRC-2 ULTRA DUTY AUTOMOTIVE IMPACT WRENCH

NOTICE

Model 2131FRC-2 Impact Wrench is designed for use in general automotive repair, tire service and heavy duty fleet 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 all regulations (local, state, federal and country), that may apply to hand held/hand operated pneumatic tools.
- For safety, top performance, and maximum durability of parts, operate this tool at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet with 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 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.
- The use of a hose whip is recommended. A coupler connected directly to the air inlet increases tool bulk and decreases tool maneuverability.
- For maximum performance, the coupler on the wall should be the next size larger than the coupler used on the tool. The coupler closest to the tool should not be less than the proper air supply hose size.

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.


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

LUBRICATION



Ingersoll-Rand No. 50



Ingersoll-Rand No. 115-1LB for routine external lubrication of the impact mechanism through the Hammer Case Grease Fitting.

Use **Ingersoll-Rand No. 105-1LB** or **Ingersoll-Rand 105-8LB** when disassembling and assembling the impact mechanism.

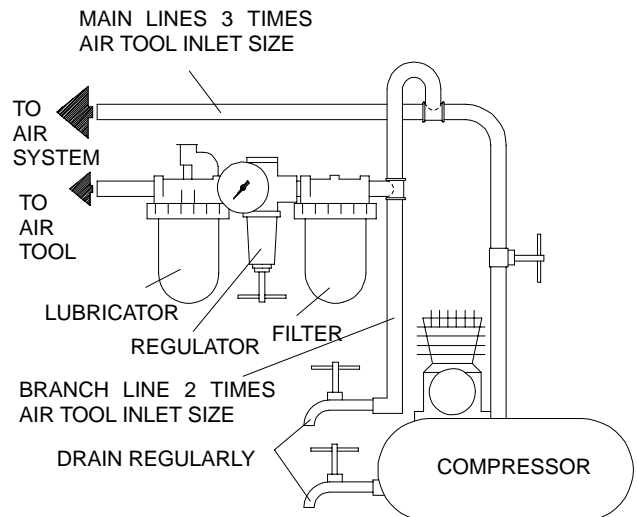
Always use of an air line lubricator with these tools. We recommend the following Filter-Lubricator-Regulator Unit:

For USA – No. C18-03-FKG0-28

For International – C18-C3-FKG0

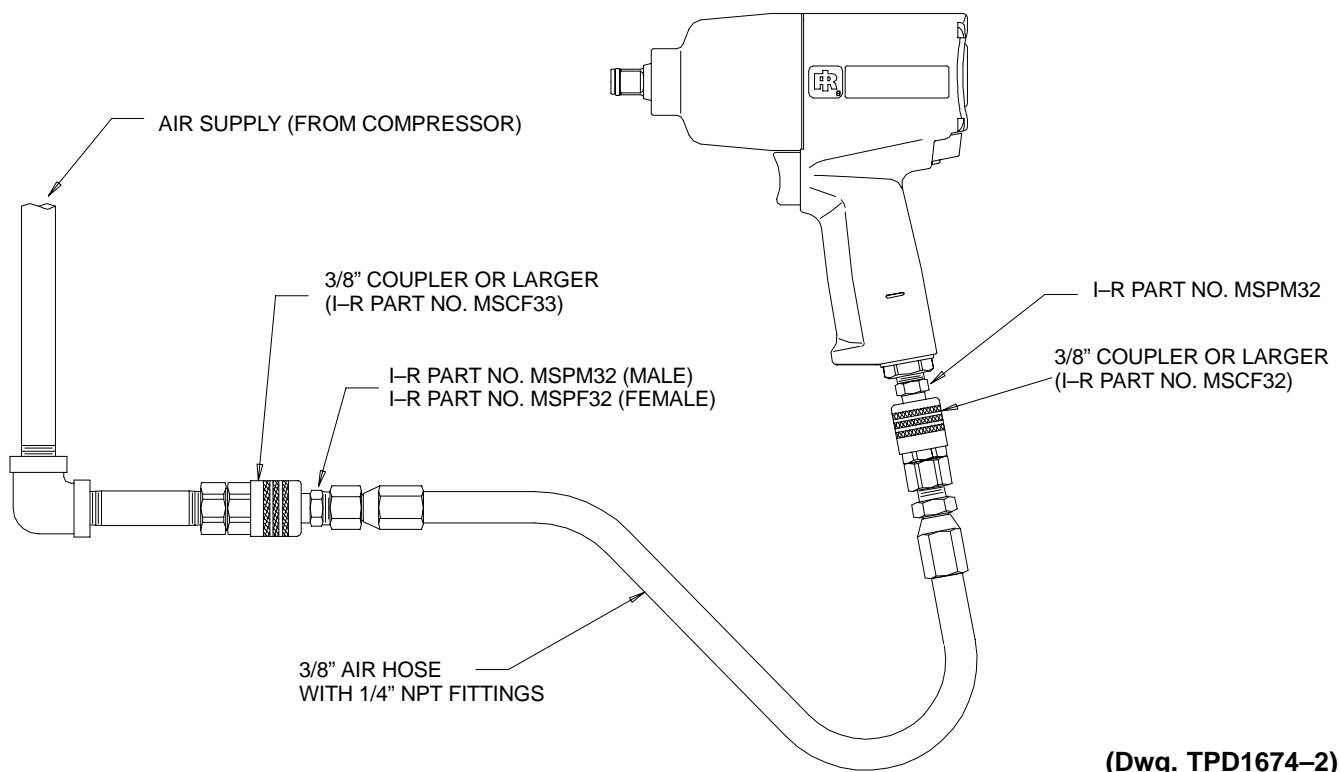
CAUTION

Do not mark any nonmetallic surface on this tool with customer identification codes. Such actions could affect tool performance.



(Dwg. TPD905-1)

PLACING TOOL IN SERVICE



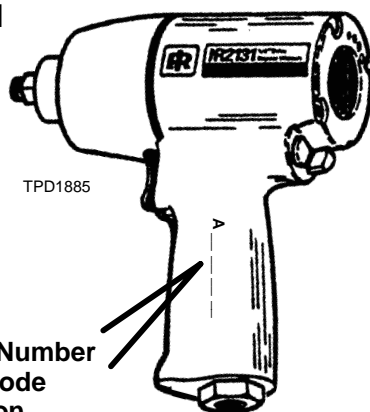
SPECIFICATIONS

Model	Type of Handle	Drive	Impacts per min.	Recommended Torque Range		■ Sound Level dB (A)		◆ Vibrations Level
				Forward ft-lb (Nm)	Reverse ft-lb (Nm)	Pressure	Power	m/s ²
2131FRC-2	pistol grip	1/2" (2" ext.)	1,250	*	550 (600 Max.) 746 (813 Max.)	95.5	108.5	5.7

* The Power Regulator on the Model 2131FRC-2 is fixed in one position and cannot be adjusted. Check torque output with a torque meter when tool is operating under standard shop conditions.

- Tested in accordance with PNEUROP PN8NTC1.2
- ◆ Tested in accordance with ISO8662-1

2131



Letter/Number
Date Code
Location
A _____

DECLARATION OF CONFORMITY

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

78192 Trappes Cedex France
(address)

declare under our sole responsibility that the product,

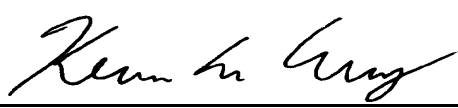
Model 2131FRC-2 Ultra Duty Impact Wrench

to which this declaration relates, is in compliance with the provisions of
98/37/EC Directives.

By using the following Principle Standards: ISO8662, PNEUROP PN8NTC1

Serial No. Range (1999 ->) A99M XXXXX ->


D. Vose
Name and signature of authorised persons


Kevin R. Morey
Name and signature of authorised persons

December, 1999
Date

December, 1999
Date

NOTICE

SAVE THESE INSTRUCTIONS. DO NOT DESTROY.

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

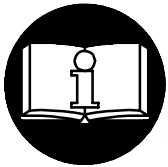
MODE D'EMPLOI DES CLÉS À CHOCS AUTOMOBILES SÉRIE EXTRA FORTE MODÈLE 2131FRC-2

NOTE

La clé à chocs Modèle 2131FRC-2 est destinée aux réparations automobiles générales, à l'entretien des pneus et aux applications de parc automobile nécessitant des couples élevés.

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

- Cet outil doit toujours être exploité, inspecté et entretenu conformément à toutes les réglementations (locales, départementales, fédérales et nationales), applicables aux outils pneumatiques tenus/commandés à la main.
- 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. 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.
- L'utilisation d'un flexible suspendu est recommandée. Un raccord connecté directement au raccord d'admission augmente le poids de l'outil et réduit donc sa manoeuvrabilité.
- Pour obtenir les performances maximales, le raccord mural doit être d'un diamètre immédiatement supérieur à celui du raccord utilisé sur l'outil. Le raccord le plus proche de l'outil ne doit pas être inférieur au diamètre du flexible d'alimentation correct.

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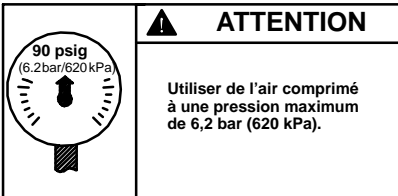
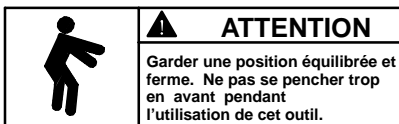
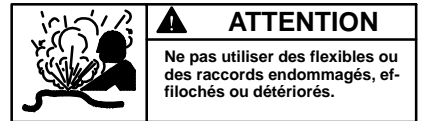
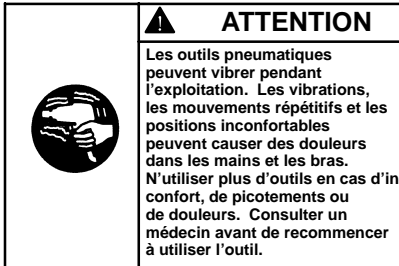
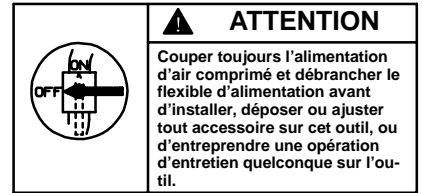
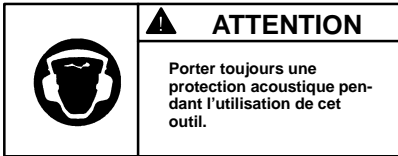
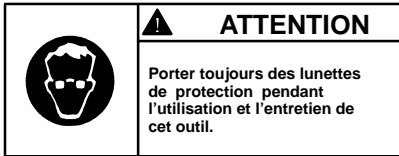
Imprimé aux É.U.

INGERSOLL-RAND®
PROFESSIONAL TOOLS

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. 115-1LB pour une lubrification extérieure normale du mécanisme de chocs par l'intermédiaire du raccord de graissage du carter de marteau.

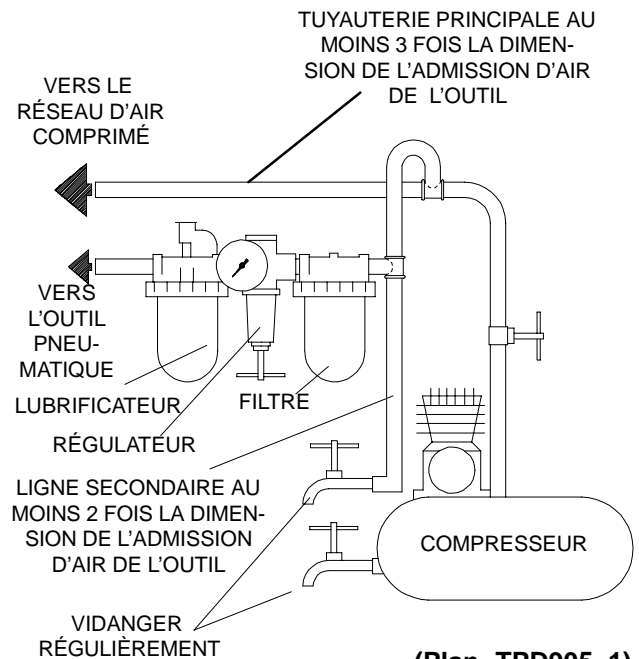
Ingersoll-Rand No. 105-1LB ou Ingersoll-Rand No. 105-8LB pour le démontage et l'assemblage du mécanisme de chocs.

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

É.U. – No. C18-03-FRCG0-28
International – No. C18-C3-FKG0

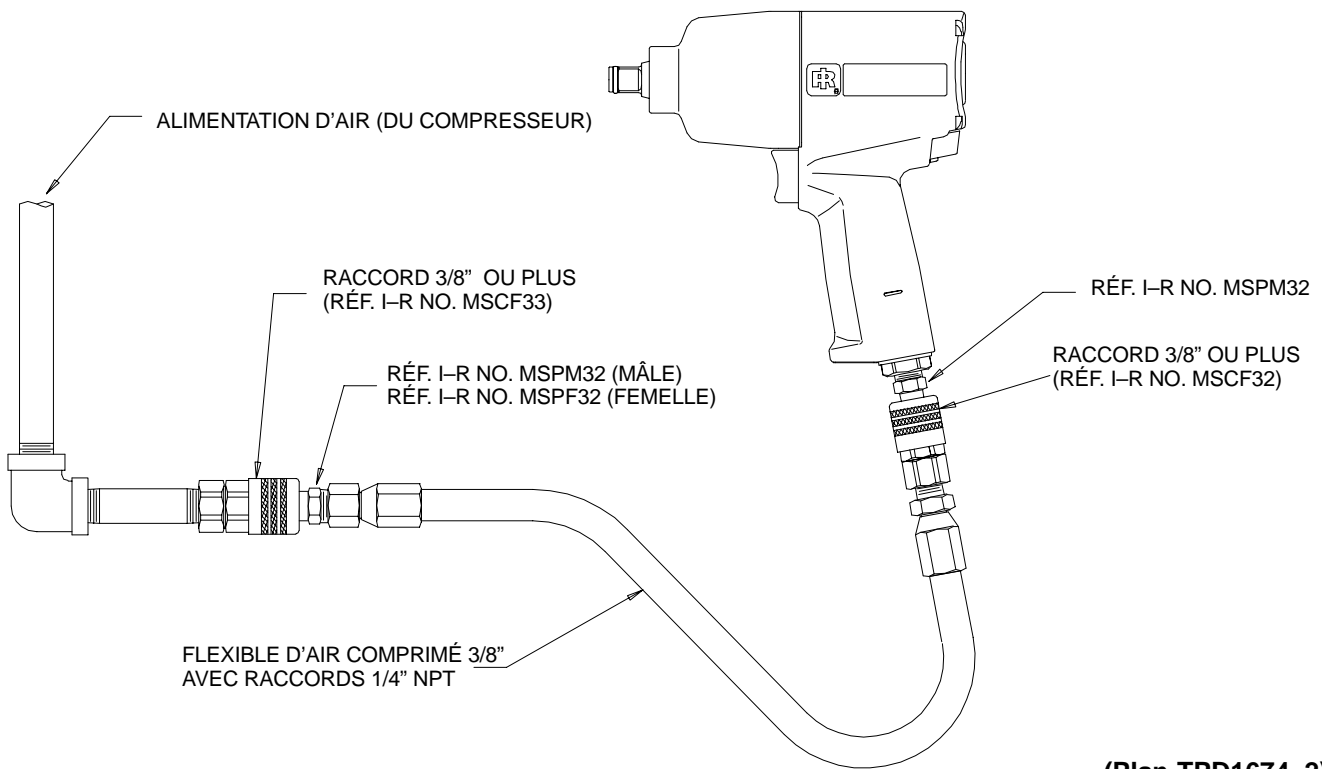
AVERTISSEMENT

Ne pas marquer les codes d'identification client sur les surfaces non métalliques de cet outil. De telles actions pourraient affecter les performances de l'outil.



(Plan TPD905-1)

MISE EN SERVICE DE L'OUTIL



(Plan TPD1674-2)

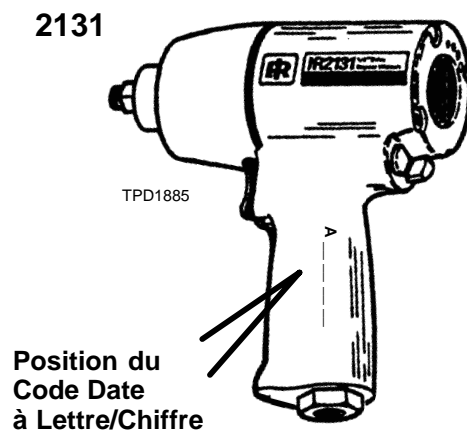
SPÉCIFICATIONS

Modèle	Type de Poignée	Entraînement	Coups par minute	Gamme de couples recommandée		■ Niveau de son dB (A)		◆ Niveau de vibration
				Marche avant ft-lb (Nm)	Marche arrière ft-lb (Nm)	Pression	Puissance	m/s ²
2131FRC-2	poignée pistolet	1/2" 2" ext.	1.250	*	550 (600 max.) 746 (813 max.)	95,5	108,5	5,7

* Le régulateur de puissance du modèle 2131FRC-2 est fixé dans une position et ne peut pas être ajusté. Vérifier le couple de sortie à l'aide d'un mesureur de couple lorsque l'outil fonctionne dans des conditions normales d'atelier.

■ Test selon PNEUROP PN8NTC1.2

◆ Test selon ISO8662-1



CERTIFICAT DE CONFORMITÉ

Nous _____ **Ingersoll–Rand, Co.**
(nom du fournisseur)

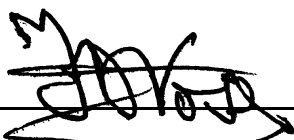
_____ **78192 Trappes Cedex France**
(adresse)

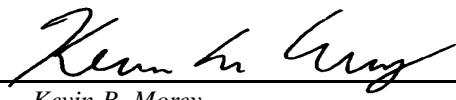
déclarons sous notre seule responsabilité que le produit:
_____ **Clé à Chocs Automobiles Série Extra Forte**
_____ **Modèle 2131FRC–2**

objet de ce certificat, est conforme aux prescriptions des Directives:
_____ **98/37/CE**

en observant les normes de principe suivantes: _____ **ISO8662, PNEUROP PN8NTC1**

N^o. Serie: _____ **(1999 →) A99M XXXXX →**


_____ *D. Vose*
Nom et signature des chargés de pouvoir


_____ *Kevin R. Morey*
Name and signature of authorised persons

_____ **Décembre, 1999**
Date

_____ **Décembre, 1999**
Date

NOTE

CONSERVEZ SOIGNEUSEMENT CES INSTRUCTIONS. NE PAS LES DÉTRUIRE.

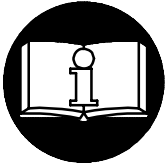
A la fin de sa durée de vie, il est recommandé de démonter l'outil, de dégraisser les pièces et de les séparer en fonction des matériaux de manière à ce que ces derniers puissent être recyclés.

BEDIENUNGSANLEITUNG FÜR ULTRA-HOCHLEISTUNGS-SCHLAGSCHRAUBER DER BAUREIHE 2131FRC-2

HINWEIS

Der Schlagschrauber der Baureihen 2131FRC-2 ist eingesetzt für allgemeine KFZ-Reparaturen, Rad- und Reifenwechsel und schwere Fahrzeugparkarbeiten.

Ingersoll-Rand lehnt jede Haftung für Veränderungen an Werkzeugen ab, die ohne vorherige Rücksprache mit Ingersoll-Rand vorgenommen werden.



⚠ ACHTUNG

**NACHFOLGEND WICHTIGE SICHERHEITSHINWEISE.
DIESE BETRIEBSANWEISUNG VOR INBETRIEBNAHME DES WERKZEUGES
UNBEDINGT LESEN.**

**DER ARBEITGEBER IST VERPFLICHTET, DIE IN DIESEM HANDBUCH GEGEBENEN
INFORMATIONEN DEM BEDIENER ZUGÄNGLICH ZU MACHEN.
DIE NICHTEINHALTUNG DIESER WARNHINWEISE KANN ZU VERLETZUNGEN FÜHREN.**

INBETRIEBNAHME DES WERKZEUGES

- Das Werkzeug stets nach den örtlich und landesweit geltenden Vorschriften für handgehaltene/handbetriebene Druckluftwerkzeuge betreiben.
- Zur Erzielung höchster Sicherheit, Leistung und Haltbarkeit der Teile sollte dieses Werkzeug mit einem maximalen Luftdruck von 6,2 bar/620 kPa am Lufteinlaß und einem Luftzufuhrschlauch 10 mm Innendurchmesser betrieben werden.
- Vor Montage, Demontage oder Verstellung von Aufsatzteilen bzw. Wartung dieses Werkzeuges die Druckluftversorgung allseitig abschalten und Druckluftschlauch abschließen.
- Keine beschädigten, durchgescheuerten oder abgenutzten Luftschräume und Anschlüsse verwenden.
- Darauf achten, daß alle Schläuche und Anschlüsse die passende Größe haben und korrekt befestigt sind. In Zeichnung TPD905-1 ist eine typische Rohrleitungsanordnung abgebildet.
- Stets saubere, trockene Luft verwenden und einen Luftdruck von 6,2 bar verwenden. Staub, ätzende Dämpfe und/oder Feuchtigkeit können den Motor eines Druckluftwerkzeuges beschädigen.
- Die Werkzeuge nicht mit brennbaren oder flüchtigen Flüssigkeiten wie Kerosin und Diesel schmieren.
- Keine Schilder entfernen. Beschädigte Schilder austauschen.
- Einsatz eines Schlauchschutzes wird empfohlen. Wird direkt am Lufteinlaß ein Kuppler angeschlossen, so wird dadurch die Werkzeugmasse größer und die Werkzeugmanövrierfähigkeit reduziert.
- Um maximale Leistung zu gewährleisten, muß der Koppler an der Wand gegenüber dem am Werkzeug eingesetzten Koppler um eine Stufe größer sein. Der dem Werkzeug am nächsten gelegene Koppler darf nicht kleiner sein als der jeweilige Luftzufuhrschlauch.

WERKZEUGEINSATZ

- Beim Betreiben oder Warten dieses Werkzeuges stets Augenschutz tragen.
- Beim Betreiben dieses Werkzeuges stets Gehörschutz tragen.
- Hände, lose Bekleidungsstücke und lange Haare vom rotierenden Ende des Werkzeuges fernhalten.
- Vor der Inbetriebnahme auf die Position des Umsteuerhebels achten, damit bei Betätigen der Drossel die Drehrichtung schon bekannt ist.
- Bei Start und Betrieb eines Werkzeuges auf Rückschlag achten und darauf vorbereitet sein.
- Während des Betriebes für festen Halt sorgen und den Körper nicht zu weit vorlehnen. Bei Betrieb mit empfohlenem oder niedrigerem Luftdruck können hohe Reaktionsdrehmomente auftreten.
- Nach dem Loslassen des Drückers kann die Welle des Werkzeuges noch kurz weiterdrehen.
- Druckluftbetriebene Werkzeuge können während des Betriebs vibrieren. Vibrationen, häufige gleichförmige Bewegungen oder unbequeme Positionen können schädlich für Hände und Arme sein. Bei Unbehagen, Kribbeln oder Schmerzen das Werkzeug nicht mehr benutzen. Vor dem erneuten Arbeiten mit dem Werkzeug ärztliche Hilfe aufsuchen.
- Stets von Ingersoll-Rand empfohlenes Zubehör verwenden.
- Nur Schlagschrauber-Steckschlüssel und -Zubehör verwenden. Keine Hand-Steckschlüssel (Chrom) oder -Zubehör verwenden.
- Schlagschrauber sind keine Drehmomentschrauber. Verbindungen, die ein bestimmtes Drehmoment erfordern, müssen nach dem Anziehen mit dem Schlagschrauber mit Hilfe eines Drehmomentmeßgerätes überprüft werden.
- Das Werkzeug ist nicht für die Arbeit in explosiven Atmosphären geeignet.
- Dieses Werkzeug ist nicht gegen elektrischen Schlag isoliert.

HINWEIS

Die Verwendung von nicht Original-Ingersoll-Rand-Ersatzteilen kann Sicherheitsrisiken, verringerte Standzeit und erhöhten Wartungsbedarf nach sich ziehen und alle Garantieleistungen ungültig machen.

Reparaturen sollen nur von geschultem Personal durchgeführt werden. Wenden Sie sich an Ihre nächste Ingersoll-Rand-Niederlassung oder den autorisierten Fachhandel.

Wenden Sie sich bei Rückfragen an Ihre nächste Ingersoll-Rand-Niederlassung oder den autorisierten Fachhandel.

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Druck: USA


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PROFESSIONAL TOOLS

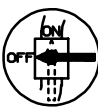
ANWEISUNGEN AUF WARNSCHILDERN


⚠ ACHTUNG


DIE NICHTEINHALTUNG DIESER WARNHINWEISE KANN ZU VERLETZUNGEN FÜHREN.


	⚠ ACHTUNG Beim Betreiben oder Warten dieses Werkzeuges stets Augenschutz tragen.
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	⚠ ACHTUNG Beim Betreiben dieses Werkzeuges stets Gehörschutz tragen.
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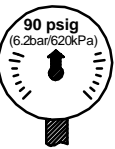
	⚠ ACHTUNG Vor Wartungsarbeiten oder dem Austausch von Zubehör ist das Werkzeug von der Druckluftversorgung abzuschalten.
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	⚠ ACHTUNG Druckluftbetriebene Werkzeuge können während des Betriebs vibrieren. Vibrationen, häufige gleichförmige Bewegungen oder unbequeme Positionen können schädlich für Hände und Arme sein. Bei Unbehagen, Kribbeln oder Schmerzen das Werkzeug nicht mehr benutzen. Vor dem erneuten Arbeiten mit dem Werkzeug ärztliche Hilfe suchen.
---	--

	⚠ ACHTUNG Das Werkzeug nicht am Schlauch tragen.
---	--

	⚠ ACHTUNG Keine beschädigten, durchgeschauerten oder abgenutzten Luftschläuche und Anschlüsse verwenden.
---	--

	⚠ ACHTUNG Während des Betriebens für festen Halt sorgen und den Körper nicht zu weit nach vorne beugen.
---	---

	⚠ ACHTUNG Mit einem maximalen Luftdruck von 6,2 bar/620 kPa (90 psig) betreiben.
---	--

INBETRIEBNAHME DES WERKZEUGES

SCHMIERUNG



Ingersoll-Rand Nr. 50



Zur routinemäßigen, externen Schmierung des Schlagwerkes (am Hammergehäuse-Schmiernippel) **Ingersoll-Rand Öl Nr. 115-1LB** verwenden.

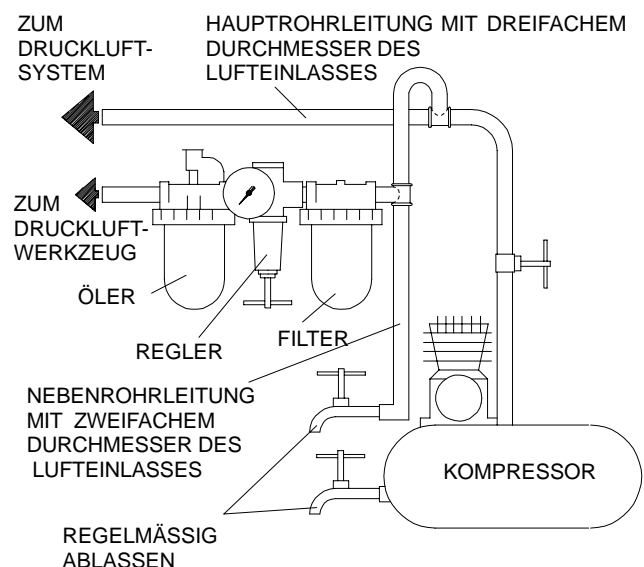
Bei Zerlegung und Zusammenbau des Schlagwerkes **Ingersoll-Rand Öl Nr. 105-1LB** oder **Ingersoll-Rand Öl Nr. 105-8LB** verwenden.

Das Werkzeug stets mit einem Leitungsoiler verwenden. Es wird folgende Filter-Regler-Öler-Kombination empfohlen:

Ingersoll-Rand Nr: C18-C3-FKG0

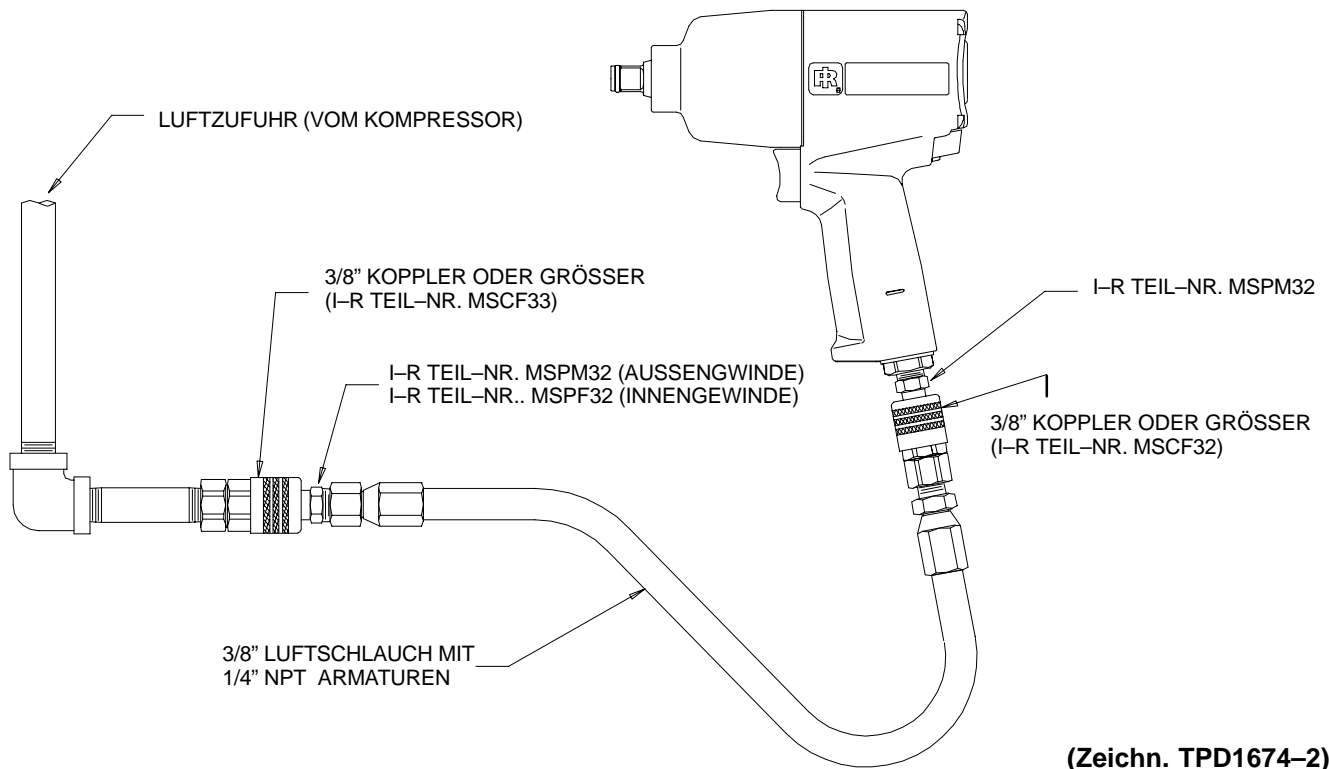
VORSICHT

Die nicht-metallische Oberfläche des Werkzeuges ist keinesfalls mit Kunden-Identifikations-Merkmalen zu versehen. Dies kann die Leistung des Werkzeuges beeinträchtigen.



(Zeichn. TPD905-1)

INBETRIEBNAHME DES WERKZEUGES



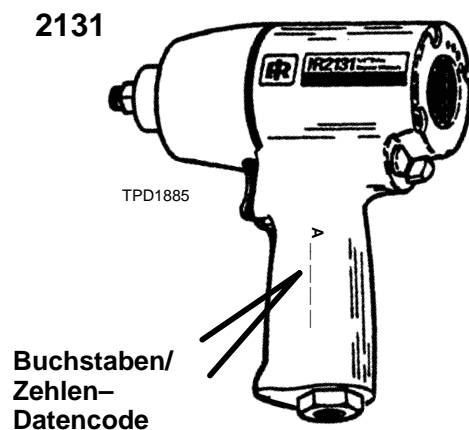
TECHNISCHE DATEN

Modell	Griffart	Antrieb	Schläge/ Minute	Empfohlenes Arbeitsdrehmoment		■Schallpegel dB (A)		◆Schwin- gungs- intensität
				Vorwärts ft-lb/Nm	Rückwärts ft-lb/Nm	Druck	Leistung	m/s ²
2131FRC-2	Pistolengriff	1/2" (2" Verl.)	1.250	*	550 (max. 600) 746 (max. 813)	95,5	108,5	5,7

* Beim Modell 2131FRC-2 ist der Leistungsregler in einer Stellung fixiert und nicht einstellbar. Bei Verwendung des Werkzeugs unter standardmäßigen Betriebsbedingungen die Drehmomentabgabe mit einem Drehmomentmeßgerät prüfen.

■ Gemäß PNEUROP PN8NTC1.2 geprüft

◆ Gemäß ISO8662-1 geprüft



KONFORMITÄTSERKLÄRUNG

Wir

Ingersoll-Rand, Co.

(Name des Herstellers)

78192 Trappes Cedex France

(Adresse)

erklären hiermit, gemäß unserer alleinigen Verantwortung, daß die Geräte:

**Ultra-Hochleistungs-Schlagschrauber
der Baureihe 2131FRC-2**

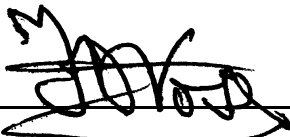
auf die sich diese Erklärung bezieht, den Richtlinien:

98/37/EG

unter Anlehnung an die folgenden Grundnormen

entsprechen: **ISO8662, PNEUROP PN8NTC1**

Serien-Nr.-Bereich: **(1999 →) A99M XXXXX →**



D. Vose

Name und Unterschrift der Bevollmächtigten



Kevin R. Morey

Name and signature of authorised persons

Dezember, 1999

Datum

Dezember, 1999

Date

HINWEIS

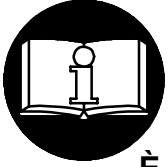
DIESE ANWEISUNGEN SIND SORGFÄLTIG AUFZUBEWAHREN. NICHT ZERSTÖREN.

Zur Entsorgung ist das Werkzeug vollständig zu demontieren, zu entfetten und nach Materialarten getrennt der Wiederverwertung zuzuführen.

ISTRUZIONI PER CHIAVI AD IMPULSI ULTRA DUTY PER AUTOMEZZI MODELLO 2131FRC-2

AVVISO

Le chiavi ad impulsi modello 2131FRC-2 è state progettate per l'uso di riparazione di autoveicoli, manutenzione dei pneumatici ed applicazioni heavy duty di fleet. La Ingersoll-Rand non è responsabile delle modifiche apportate alle pompe dai clienti per adattarli ad applicazioni per le quali la Ingersoll-Rand non sia stata interpellata.



⚠ AVVERTENZA

**IMPORTANTE INFORMAZIONE DI SICUREZZA ACCLUSA.
LEGGERE IL PRESENTE MANUALE PRIMA DI USARE L'ATTREZZO.
È RESPONSABILITÀ DEL DATORE DI LAVORO DI METTERE QUEST'INFORMAZIONE
NELLE MANI DELL'OPERATORE.
LA MANCATA OSSERVANZA DELLE SEGUENTI AVVERTENZE PUÒ CAUSARE
LESIONI FISICHE.**

MESSA IN SERVIZIO DELL'ATTREZZO

- Usare, ispezionare e mantenere sempre quest'attrezzo secondo tutti i regolamenti (locali, statali, federali e nazionale), che possano essere applicabili agli attrezzi a mano pneumatici.
- Per sicurezza, massime prestazioni e massima durabilità delle parti, usare quest'attrezzo ad una massima pressione d'aria di 90 psig (6,2 bar/ 620 kPa) all'ingresso con un flessibile di alimentazione dell'aria con diametro interno di 3/8" (10 mm).
- Disinserire sempre l'alimentazione aria e staccare il relativo tubo dall'attrezzo, prima di installare, togliere o regolare qualsiasi accessorio, oppure prima di eseguire qualsiasi operazione di manutenzione dell'attrezzo.
- Non adoperare tubi e raccordi danneggiati, consunti o deteriorati.
- Assicurarsi che tutti i tubi ed i raccordi siano delle corrette dimensioni e saldamente serrati. Consultare il disegno TPD905-1 per una tipica disposizione dei tubi.
- Usare sempre aria pulita ed asciutta alla pressione max di 90 psig. Polvere, fumi corrosivi e/o un eccesso di umidità possono rovinare il motore di un attrezzo pneumatico.
- Non lubrificare gli utensili con liquidi infiammabili o volatili come kerosene, gasolio o combustibile per aviogetti.
- Non togliere nessuna etichetta. Sostituire eventuali etichette danneggiate.
- Si consiglia l'uso di un segmento di flessibile. Un raccordo collegato direttamente all'ingresso dell'aria aumenta il volume dell'attrezzo e ne diminuisce la manovrabilità.
- Per massime prestazioni, il raccordo sul muro deve essere della successiva dimensione maggiore di quella del raccordo sull'attrezzo. Il raccordo più vicino all'attrezzo non deve essere inferiore alla corretta dimensione del flessibile dell'alimentazione dell'aria.

COME USARE L'ATTREZZO

- Indossare sempre degli occhiali protettivi quando si adopera questo attrezzo o se ne esegue la manutenzione.
- Indossare sempre delle cuffie protettive quando si adopera questo attrezzo.
- Tenere le mani, gli indumenti sciolti ed i capelli lunghi distanti dall'estremità battente dell'attrezzo.
- Notare la posizione della leva d'inversione prima di azionare l'attrezzo in modo da essere consci della direzione di ruotazione quando si aziona l'immissione.
- Fare attenzione e cercare di anticipare improvvisi di azioni di movimento durante l'avviamento e l'uso di qualsiasi utensile pneumatico.
- Nell'usare l'attrezzo, mantenere con il corpo una posizione salda e ben bilanciata. Non sbilanciarsi durante l'uso di questo attrezzo. Delle elevate reazioni di coppia si possono verificare alla pressione d'aria raccomandata o inferiore.
- Gli accessori dell'utensile potrebbe continuare a funzionare brevemente dopo che è stata disinserita l'immissione.
- Gli attrezzi pneumatici possono vibrare durante l'uso. Le vibrazioni, i movimenti ripetitivi o le posizioni scomode possono risultare dannosi per le mani e le braccia. Interrompere l'uso dell'utensile se si avvertono sintomi di disagio fisico, formicolio o dolore. Interpellare un medico prima di riprendere il lavoro.
- Usare accessori raccomandati dalla Ingersoll-Rand.
- Usare solo boccole ed accessori ad impulso. Non usare boccole a mano (cromate) o accessori.
- Le chiavi ad impulsi non sono chiavi torsionometriche. Collegamenti che richiedono specifiche coppie devono essere controllati con un torsionometro l'installazione con una chiave torsionometrica.
- Questo utensile non è stato progettato per operare in atmosfere esplosive.
- Questo utensile non è isolato contro le scosse elettriche.

AVVISO

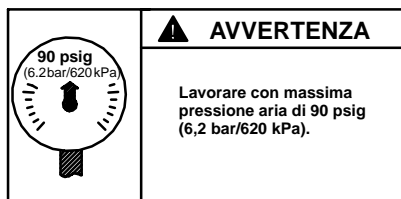
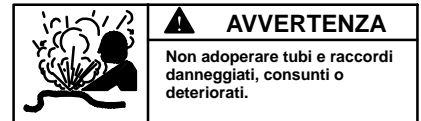
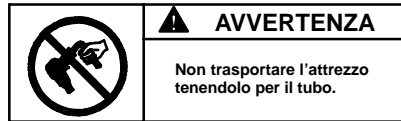
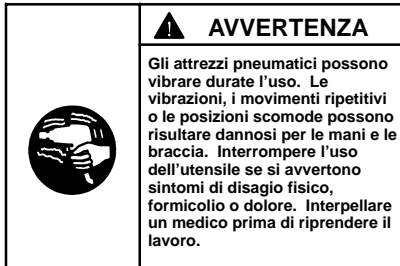
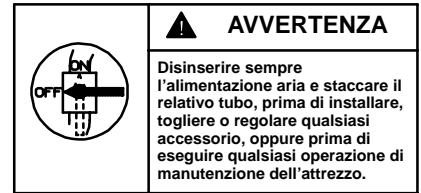
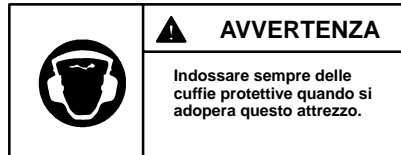
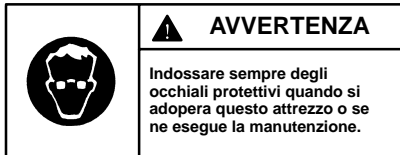
L'uso di ricambi non originali Ingersoll-Rand potrebbe causare condizioni di pericolosità, compromettere le prestazioni dell'attrezzo ed aumentare la necessità di manutenzione, inoltre potrebbe invalidare tutte le garanzie.

Le riparazioni devono essere effettuate soltanto da personale autorizzato e qualificato. Rivolgersi al più vicino centro di assistenza tecnica Ingersoll-Rand.

IDENTIFICAZIONE DELLE ETICHETTE DI AVVERTENZA

AVVERTENZA

LA MANCATA OSSERVANZA DELLE SEGUENTI AVVERTENZE PUÒ CAUSARE LESIONI FISICHE.



MESSA IN SERVIZIO DELL'ATTREZZO

LUBRIFICAZIONE



Ingersoll-Rand Nr. 50



Ingersoll-Rand Nr. 115-1LB per lubrificazione esterna di routine del meccanismo dell'attrezzo ad impulsi attraverso l'ingrassatore posto sulla cassa del martello.

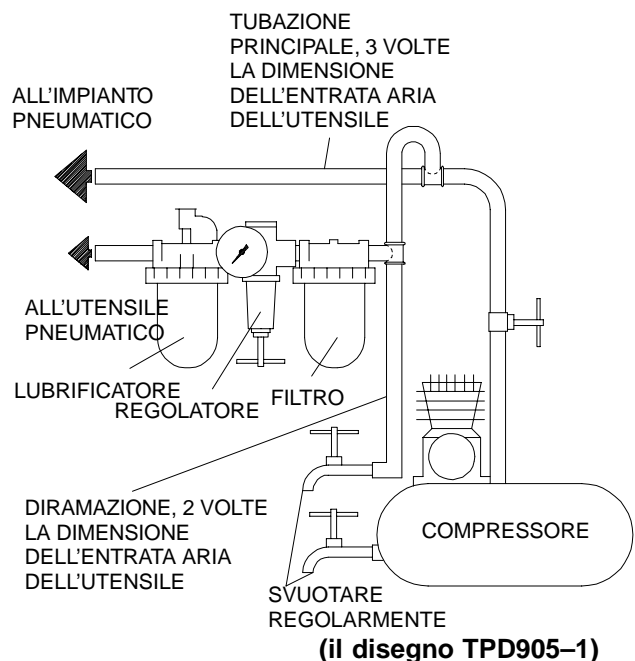
Usare Ingersoll-Rand Nr. 105-1LB o Ingersoll-Rand 105-8LB quando si smonta e si monta il meccanismo ad impulsi.

Con questi attrezzi usare sempre un lubrificatore di linea. Si raccomanda l'uso del seguente gruppo filtro-regolatore-lubrificatore:

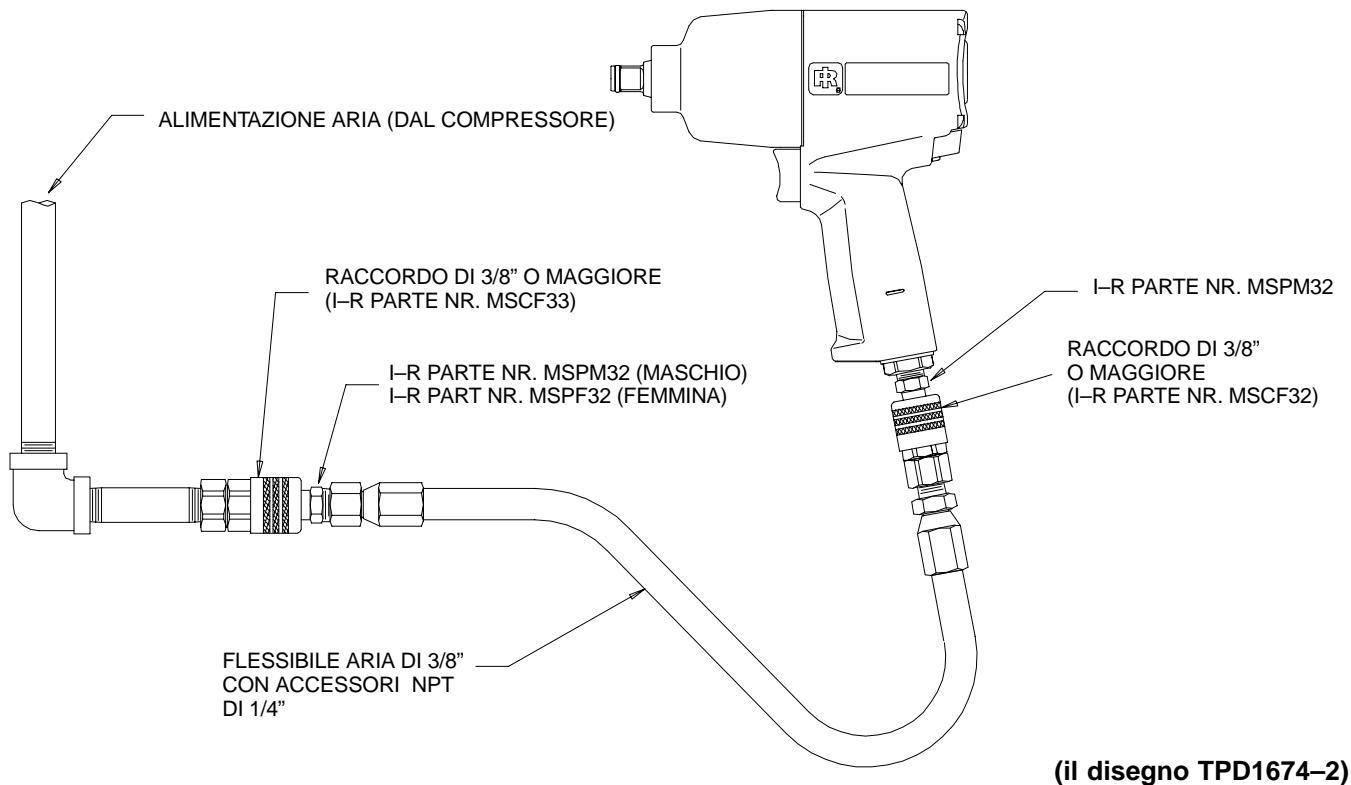
per gli USA - Nr. C18-03-FKG0-28
per gli altri paesi - C18-C3-FKG0

ATTENZIONE

Non contrassegnare alcuna superficie non metallica su questo attrezzo con i codici di identificazione del cliente. Ciò potrebbe compromettere le prestazioni dell'attrezzo.



MESSA IN SERVIZIO DELL'ATTREZZO



SPECIFICA

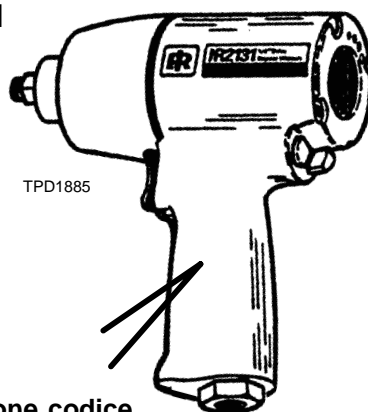
Modello	Tipo d'impugnatura	Attacco	Impulsi/min.	Gamma di coppia consigliata		■ Livello suono dB (A)		◆ Livello di vibrazione
				Avanti ft-lb/Nm	Inverso ft-lb/Nm	Pressione	Potenza	m/s ²
2131FRC-2	guangetta a pistola	1/2" 2" est.	1.250	*	550 (600 Max.) 746 (813 Max.)	95,5	108,5	5,7

* Il regolatore di potenza sul Modello 2131FRC-2 è bloccato in una posizione e non può essere regolato. Controllare la coppia sviluppata, durante il funzionamento dell'attrezzo in condizioni standard di officina, utilizzando un torsometro.

■ Test in conformità con PNEUROP PN8NTC1.2

◆ Test in conformità con ISO8662-1

2131



Posizione codice data Lettera/Numero

DICHIARAZIONE DI CONFORMITÀ

Noi Ingersoll-Rand, Co.
(nome del fornitore)

78192 Trappes Cedex France

(indirizzo)

dichiariamo sotto la nostra unica responsabilità che il prodotto:

**Chiavi ad impulsi Ultra Duty per Automezzi
modello 2131FRC-2**

a cui si riferisce la presente dichiarazione è conforme alle normative delle direttive:

98/37/CE

secondo i seguenti standard: ISO8662, PNEUROP PN8NTC1

Numeri di Serie: (1999 →) A99M XXXXX →



D. Vose
Nome e firma delle persone autorizzate



Kevin R. Morey
Name and signature of authorised persons

Dicembre, 1999

Data

Dicembre, 1999

Date

AVVISO

CONSERVARE QUESTE ISTRUZIONI. NON DISTRUGGERLE.

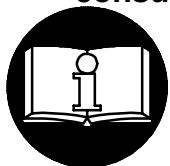
Quando l'attrezzo diventato inutilizzabile, si raccomanda di smontarlo, sgrassarlo e separare i componenti secondo i materiali in modo da poterli riciclare.

INSTRUCCIONES PARA LLAVE DE IMPACTO PARA AUTOMOCIÓN DE SERVICIO ULTRA PESADO MODELO 2131FRC-2

NOTA

La llave de impacto modelo 2131FRC-2 está diseñada para su utilización en reparaciones generales de automóviles, revisión de neumáticos y aplicaciones de servicio pesado en flotas de vehículos.

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 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, inspeccione y mantenga esta herramienta siempre de acuerdo con todas las normativas locales y nacionales que se apliquen a las herramientas neumáticas de utilización manual o que se sujeten con la mano.
- 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 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.
- Se recomienda la utilización de una conexión flexible para manguera de aire. Si se conecta un acoplador directamente a la salida de aire, se aumentará el volumen de la herramienta y se disminuirá su maniobrabilidad.
- Para conseguir un rendimiento óptimo, el acoplador situado en la pared deberá ser más grande, del tamaño siguiente al del acoplador utilizado en la herramienta. El acoplador más cercano a la herramienta no debe ser menor que el tamaño de la manguera de suministro de aire apropiada.

UTILIZACIÓN DE LA HERRAMIENTA

- Lleve siempre protección ocular cuando utilice esta herramienta o realice operaciones de mantenimiento en la misma.
- Lleve 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.
- Tome nota de la posición de la palanca de inversión antes de hacer funcionar la herramienta para tener en cuenta el sentido de rotación al accionar el estrangulador.
- 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 darse elevados pares de reacción a la presión de aire recomendada, e incluso a presiones inferiores.
- El eje de la herramienta puede seguir girando brevemente después de haberse soltado el mando.
- 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.
- 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 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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Impreso en EE. UU.

INGERSOLL-RAND®
PROFESSIONAL TOOLS

ETIQUETAS DE AVISO


⚠ AVISO


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


	⚠ ADVERTENCIA Usar siempre protección ocular al manejar o realizar operaciones de mantenimiento en esta herramienta.
---	--

	⚠ ADVERTENCIA Usar siempre protección para los oídos al manejar esta herramienta.
---	---

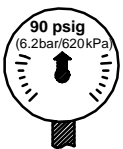
	⚠ ADVERTENCIA Cortar siempre el suministro de aire y desconectar la manguera de suministro de aire antes de instalar, retirar o ajustar cualquier accesorio de esta herramienta, o antes de realizar cualquier operación de mantenimiento de la misma.
---	--

	⚠ 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° 115-1LB para lubricación externa periódica del mecanismo impulsor a través del engrasador de la carcasa de mazas.

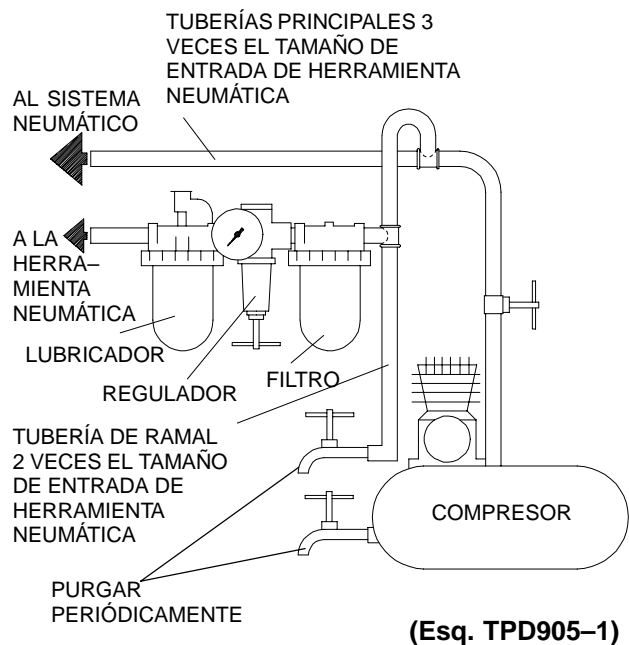
Utilice Ingersoll-Rand N° 105-1LB o 105-8LB al montar y desmontar el mecanismo de impacto.

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

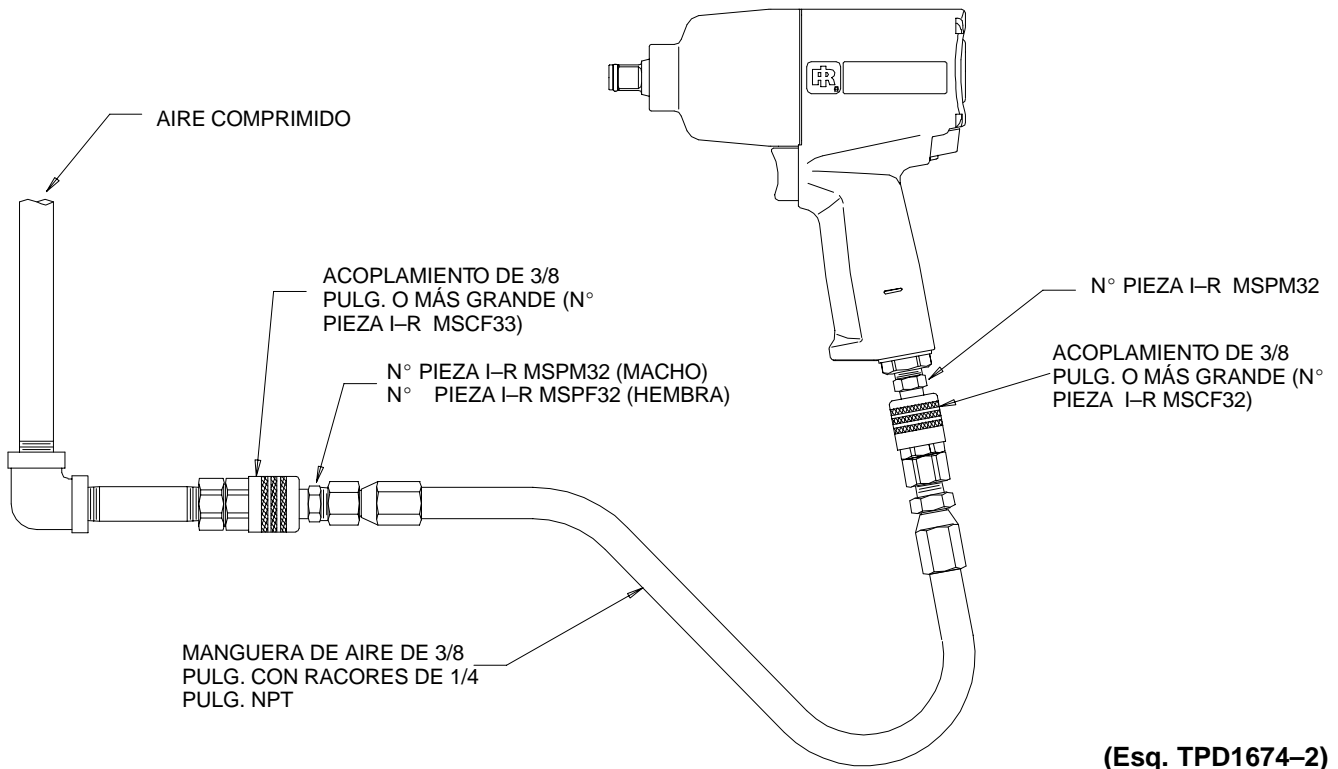
Para EE.UU. – N° C18-03-FKG0-28
Internacional – C18-C3-FKG0

PRECAUCIÓN

No marque ninguna superficie no metálica de esta herramienta con los códigos de identificación del cliente. Tal acción podría afectar al rendimiento de la herramienta.



PARA PONER LA HERRAMIENTA EN SERVICIO



ESPECIFICACIONES

Modelo	Tipo de empuñadura	Accionamiento	Impactos por minuto	Gama de par recomendada	
				Hacia delante ft-lb/Nm	Inversa ft-lb/Nm
2131FRC-2	Empuñadura de pistola	1/2 pulg. (pulg. ext.)	1.250	*	550 (600 Máx.) 746 (813 Máx.)

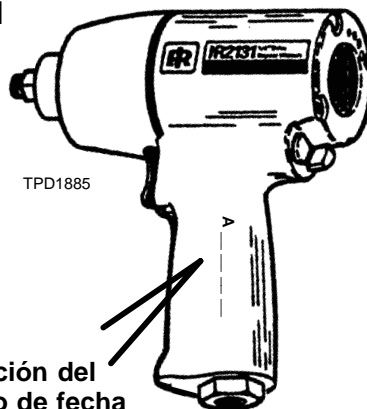
Modelo	■ Nivel de sonido dB (A)		◆ Nivel de vibraciones
	Presión	Potencia	m/s ²
2131FRC-2	95,5	108,5	5,7

* El regulador de potencia del modelo 2131FRC-2 está fijo en una posición y no se puede ajustar. Utilice un medidor de par para comprobar el par que produce la herramienta cuando funciona en condiciones normales de taller.

■ Comprobado conforme a la norma PNEUROP PN8NTC1.2

◆ Comprobado conforme a la norma ISO8662-1

2131



Ubicación del código de fecha alfanumérico

DECLARACION DE CONFORMIDAD

Los abajo firmantes Ingersoll-Rand, Co.
(nombre del proveedor)

78192 Trappes Cedex France
(domicilio)

Declaramos que, bajo nuestra responsabilidad exclusiva, el producto:

Llave de Impacto para Automoción de Servicio Ultra Pesado
Modelo 2131FRC-2

a los que se refiere la presente declaración, cumplen con todo lo establecido en las directivas:

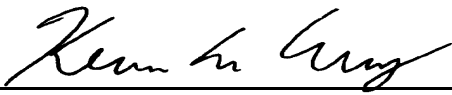
98/37/CE

conforme a los siguientes estándares: ISO8662, PNEUROP PN8NTC1

Gama de No. de Serie: (1999 →) A99M XXXXX →



D. Vose
Nombre y firma de las personas autorizadas



Kevin R. Morey
Name and signature of authorised persons

Diciembre, 1999

Fecha

Diciembre, 1999

Date

NOTA

GUARDE ESTAS INSTRUCCIONES. NO DESTRUYA.

Una vez vencida la vida útil de herramienta, se recomienda desarmar la herramienta, desengrasarla y separar las piezas de acuerdo con el material del que están fabricadas para reciclarlas.

INSTRUCTIES VOOR TYPE 2131FRC-2 SLAGMOERSLEUTEL VOOR EXTRA ZWAAR WERK

LET WEL

De Type 2131FRC-2 Slagmoersleutel (Ultra Duty) is bedoeld voor algemene reparatiewerkzaamheden in de autotechnische industrie, bandenservice en andere voorkomende zware werkzaamheden.

Ingersoll-Rand is niet aansprakelijk voor door de klant aangebrachte veranderingen aan de gereedschappen voor toepassingen waarover met Ingersoll-Rand geen voorafgaand overleg werd gepleegd.

⚠ WAARSCHUWING



**BELANGRIJKE VEILIGHEIDSINFORMATIE IS INGESLOTEN.
EERST DIT HANDBOEK LEZEN, DAN HET GEREEDSCHAP BEDIENEN.
HET BEHOORT TOT DE VERANTWOORDELIJKHEID VAN DE WERKGEVER DE IN
DIT HANDBOEK GEGEVEN INFORMATIE AAN DE GEBRUIKER TER HAND TE STELLEN.
EEN NALATEN DE HIERNAVOLGENDE WAARSCHUWINGEN OP TE VOLGEN KAN
LICHAMELIJK LETSEL TOT GEVOLG HEBBEN.**

INGEBRUIKNEMING VAN HET GEREEDSCHAP

- Dit gereedschap altijd bedienen, controleren en onderhouden in overeenstemming met alle voorschriften (plaatselijk, staat, federaal en land), die betrekking hebben op hand-gehouden/hand-bediende pneumatische gereedschappen.
- Voor veiligheid, topprestatie, en maximale bestendigheid van de onderdelen dit gereedschap laten werken bij een maximale luchtdruk van 90 psig (6.2 bar/620 kPa) bij de inlaat met een luchttoevoerslang, die een inwendige diameter van 3/8" (10 mm) heeft.
- Men dient te allen tijde de luchtinlaat af te sluiten en de luchttoevoerslang te ontkoppelen voordat enig deel aan dit gereedschap wordt aangebracht, verwijderd of afgesteld, of voordat enig onderhoud aan dit gereedschap mag worden uitgevoerd.
- Geen beschadigde, gerafelde of versleten luchtslangen of fittingen gebruiken.
- Zorg ervoor dat alle slangen en fittingen de juiste afmetingen hebben en goed zijn vastgemaakt. Zie tekening TPD905-1 voor een typisch leidingnet.
- Altijd schone, droge lucht gebruiken bij een maximum luchtdruk van 90 psig. Stof, corroderende uitwasemingen en/of te grote vochtigheid kunnen de motor van een drukluchtgereedschap ruïneren.
- De gereedschappen niet smeren met ontvlambare of vluchtige vloeistoffen als petroleum, diesel of (straal) vliegtuigbrandstoffen.
- Geen typeplaatjes verwijderen. Beschadigde typeplaatjes moeten worden vervangen.
- U wordt aangeraden een slagklem te gebruiken. Een koppeling, die direct aan de luchtinlaat is aangebracht, doet de massa van het gereedschap toenemen en de beweeglijkheid van het gereedschap afnemen.
- Voor een topprestatie moet de koppeling een slag groter zijn dan de koppeling die bij het gereedschap wordt gebruikt. Een koppeling die zich het dichtst bij het gereedschap bevindt mag geen kleinere afmeting hebben dan de luchttoevoerslang.

GEBRUIK VAN HET GEREEDSCHAP

- U moet te allen tijde oogbeschermers dragen wanneer u dit gereedschap bedient of er onderhoudswerkzaamheden aan uitvoert.
- Altijd oorbeschermers dragen wanneer dit gereedschap wordt bediend.
- Houd handen, losse kleding of lang haar weg van het draaiende eind van het gereedschap.
- Voordat het gereedschap in gebruik wordt genomen eerst op de stand van de omkeerhendel letten zodat u de draairichting kent wanneer de regelaar wordt gebruikt.
- Let op en anticipeer op plotselinge veranderingen in de werking van enig persluchtgereedschap zowel tijdens de start als gedurende het in bedrijf zijn.
- Steeds in een goede houding staan. Als u het gereedschap bedient mag u zich niet te ver uitstrekken. Hoge reactiekoppels kunnen voorkomen bij of beneden de aanbevolen luchtdruk.
- De as van het gereedschap kan even blijven draaien nadat de bediening is losgelaten.
- Persluchtgereedschappen kunnen tijdens gebruik ervan trillen. Trillingen, zich herhalende bewegingen, of ongemakkelijke houdingen kunnen schadelijk zijn voor uw handen en armen. Stop met bediening van enig gereedschap wanneer u ongemak, een tintelend gevoel of pijn ervaart. Zoek medisch advies alvorens het werk te hervatten.
- Uitsluitend de door Ingersoll-Rand aanbevolen bijbehorende hulpstukken gebruiken.
- Uitsluitend moerdoppen voor impactdoppen en bijbehorende hulpstukken gebruiken. Geen handmoersleutels (chrom) of bijbehorende hulpstukken gebruiken.
- Slagmoersleutels zijn geen momentsleutels. Aansluitingen die een specifiek koppel nodig hebben moeten, nadat zij met een slagmoersleutels zijn aangebracht, met een momentsleutel worden gecontroleerd.
- Dit gereedschap is niet ontworpen om er mee in explosieve omgevingen te werken.
- Dit gereedschap is niet geïsoleerd tegen elektrische schokken.

LET WEL

Het gebruiken van andere dan originele Ingersoll-Rand onderdelen kan gevaar opleveren voor de veiligheid, en een vermindering met zich brengen van het prestatievermogen van het gereedschap en een toeneming van het onderhoud ervan; het kan een vervallen van alle garantie-bepalingen tot gevolg hebben.

Reparaties mogen uitsluitend worden uitgevoerd door hiertoe gemachtigd en geschoold personeel. Raadpleeg uw dichtstbijzijnde erkende Ingersoll-Rand Servicenter.

Richt al uw communicatie tot het dichtstbijzijnde Ingersoll-Rand Kantoor of Wederverkoper.

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Gedrukt in U.S.A.

INGERSOLL-RAND®
PROFESSIONAL TOOLS

LABELS MET WAARSCHUWINGSINSTRUCTIES

⚠ WAARSCHUWING

EEN NALATEN DE HIERNAVOLGENDE WAARSCHUWINGEN OP TE VOLGEN KAN LICHAAMELIJK LETSEL TOT GEVOLG HEBBEN.

	⚠ WAARSCHUWING
	U moet te allen tijde oog- beschermers dragen wanneer u dit gereedschap bedient of er onderhoudswerkzaamheden aan uitvoert.

	⚠ WAARSCHUWING
	Altijd oorbeschermers dragen wanneer dit gereedschap wordt be- diend.

	⚠ WAARSCHUWING
	Men dient te allen tijde de luchtinlaat af te sluiten en de luchttoevoerslang te ontkoppelen voordat enig deel aan dit gereedschap wordt aangebracht, verwijderd of afgesteld, of voordat enig onderhoud aan dit gereedschap mag worden uitgevoerd.

	⚠ WAARSCHUWING
	Persluchtgereedschappen kunnen tijdens gebruik ervan trillen. Trillingen, zich herhalende bewegingen, of ongemakkelijke hou- dingen kunnen schadelijk zijn voor uw handen en armen. Stop met bediening van enig gereedschap wanneer u ongemak, een tintelend gevoel of pijn ervaart. Zoek medisch advies alvorens werk te hervatten.

	⚠ WAARSCHUWING
	Het gereedschap niet aan de slang dragen.

	⚠ WAARSCHUWING
	Geen beschadigde, gerafelde of versleten luchtslangen of fittings gebruiken.

	⚠ WAARSCHUWING
	Steeds in een goede houding staan. Als u het gereed- schap bedient mag U zich niet te ver uitstrekken.

	⚠ WAARSCHUWING
	Bedienen tot een maximum luchtdruk van 90 psig (6.2 bar/620 kPa),

INGEBRUIKNEMING VAN HET GEREEDSCHAP

DE SMERING



Ingersoll-Rand Nr. 50



Gebruik Ingersoll-Rand Nr 115-1LB, voor routine
uitwendige smering van het slagmechanisme aan te
brengen via de Smeernippel op het Hamerhuis.

Gebruik Ingersoll-Rand 105-1LB of Ingersoll-Rand
105-8LB wanneer het slagmechanisme wordt
gedemonteerd en gemonteerd.

Men moet bij deze gereedschappen steeds een in-lijn
aangesloten drukluchtsmeerinrichting gebruiken.

Wij bevelen u de volgende

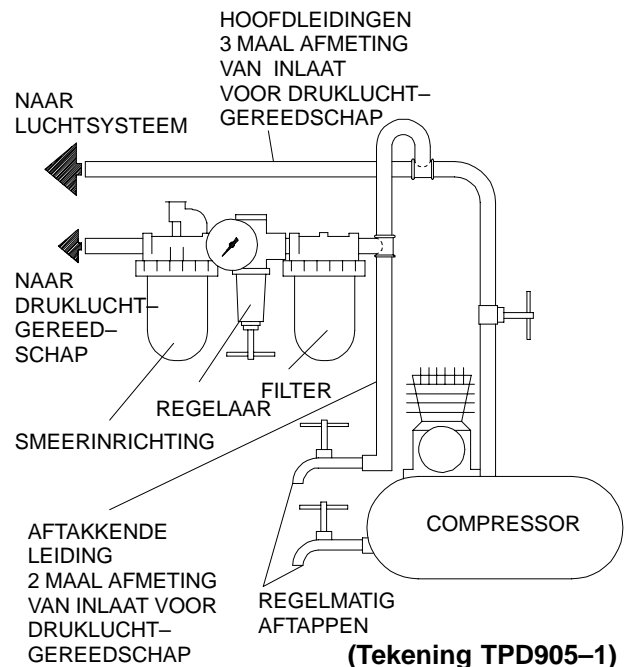
Filter-Smeerinrichting-Regeleenheid aan:

Voor de USA – Nr. C18-03-FKG0-28

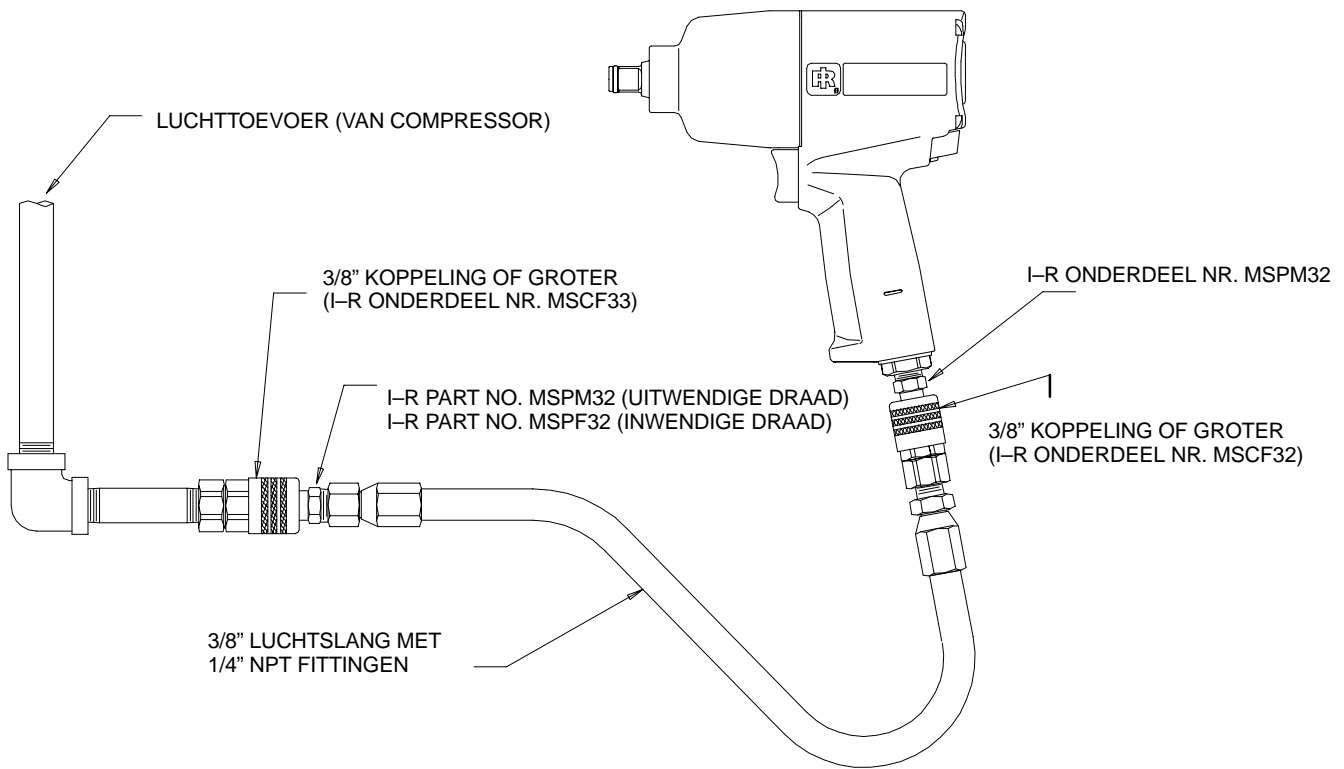
Voor Internationaal – C18-C3-FKG0

OPPASSEN

U mag geen enkel niet-metaal oppervlak van dit
gereedschap merken met een identificatiecode van de
klant. Dit kan de prestatie van het gereedschap
beïnvloeden.



INGEBRUIKNEMING VAN HET GEREEDSCHAP



(Tekening 1674-2)

SPECIFICATIES

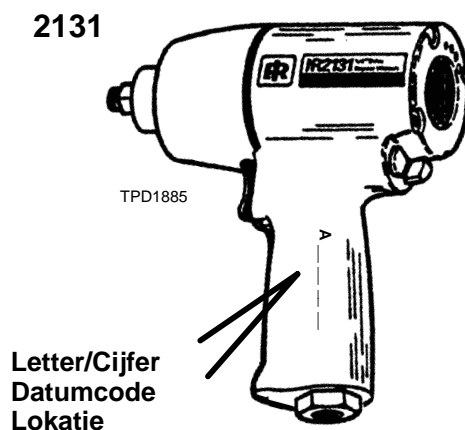
Type	Soort hendel	Aandrijving	Slagen/ min	Aanbevolen koppelbereik	
				Vooruit ft-lb (Nm)	Achteruit ft-lb (Nm)
2131FRC-2	pistoolgreep	1/2" (2" verlengd)	1.250	*	550 (600 Max.) 746 (813 Max.)

Type	■ Geluidsniveau dB (A)		◆ Trillingsniveau
	Deuk	Vermogen	m/s ²
2131FRC-2	95,5	108,5	5,7

* De slagkrachtregelaar op Type 2131FRC-2 wordt maar in één stand aangebracht en kan niet worden afgesteld. Controleer het koppelbereik met een torsiometer onder normale werkomstandigheden.

■ Getest overeenkomstig PNEUROP PN8NTC1.2

◆ Getest overeenkomstig ISO8662-1



SCHRIFTELIJKE VERKLARING VAN CONFORMITEIT

Wij Ingersoll-Rand, Co.
(naam leverancier)

78192 Trappes Cedex France
(adres)

verklaren, onder onze uitsluitende aansprakelijkheid, dat het produkt:

Type 2131FRC-2 Slagmoersleutel voor Extra Zwaar Werk (Ultra Duty)


waarop deze verklaring betrekking heeft overeenkomt met de bepalingen van directieven:

98/37/EG

overeenkomstig de volgende hoofdstandaards: ISO8662, PNEUROP PN8NTC1

Serienummers: (1999 →) A99M XXXXX →


D. Vose
Naam en handtekening van gemachtigde personen


Kevin R. Morey
Name and signature of authorised persons

December, 1999
Datum

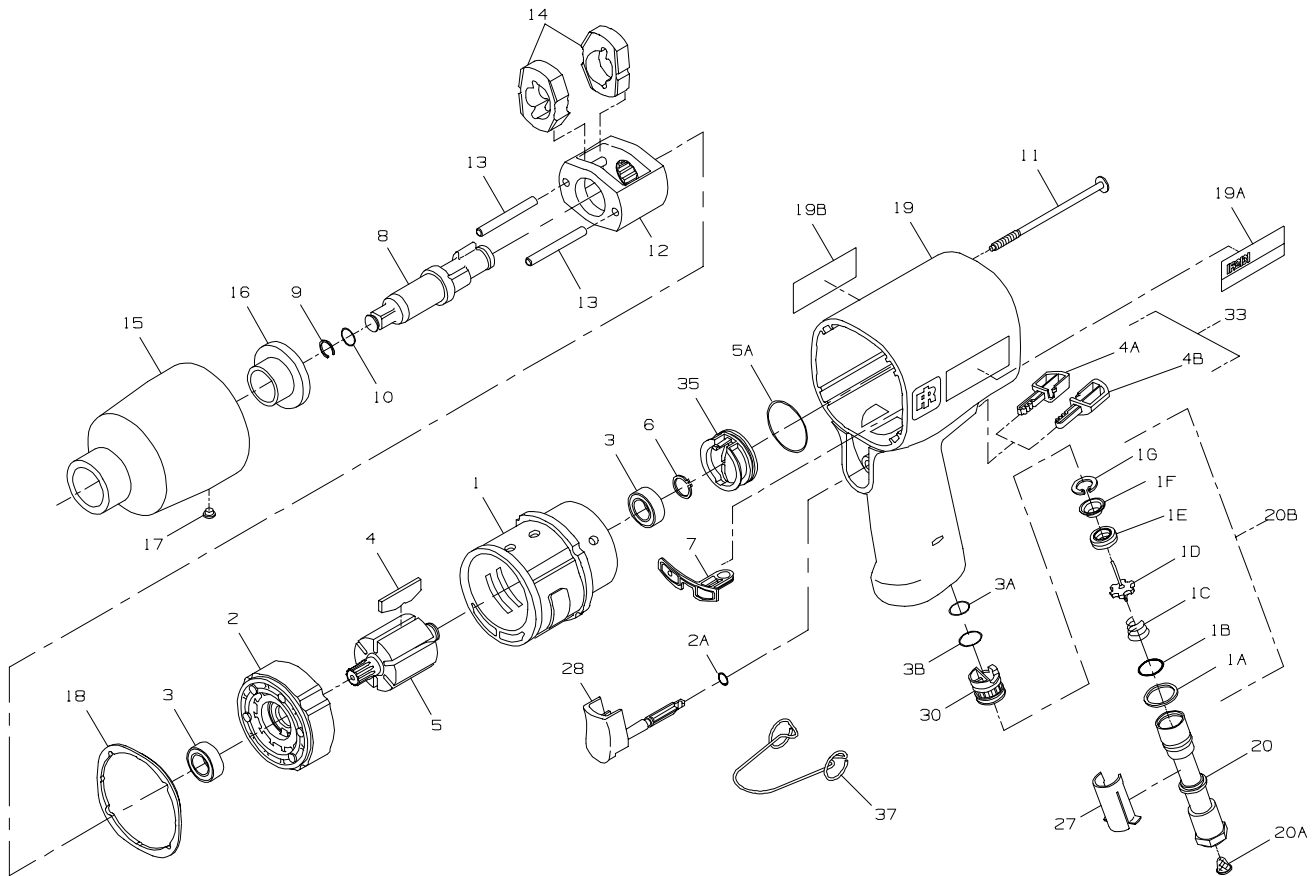
December, 1999
Date

LET WEL

DEZE INSTRUCTIES GOED BEWAREN. NIET VERNIETIGEN.

Wanneer de levensduur van het gereedschap verstreken is, wordt u aangeraden het gereedschap te demonteren en ontvetten, en de delen gescheiden naar materialen op te bergen zodat zij gerecycled kunnen worden.

MAINTENANCE INSTRUCTIONS
SECTION D'ENTRETIEN
WARTUNG
SEZIONE DI MANUTENZIONE
INSTRUCCIONES DE MANTENIMIENTO
ONDERHOUD



(TPA1452-1)



PART NUMBER FOR ORDERING
 REFERENCE POUR COMMANDE DE LA PIECE
 BESTELNUMMER
 NUMERO DEL PEZZO PER L'ORDINAZIONE
 SIMBOLO DE LA PIEZA PARA PEDIDOS
 BESTELNUMMERS

1	Cylinder	2131FRC-3	◆	20B	Inlet Parts Kit	2131-K303
2	Front End Plate	2131-11		1A	Washer	-----
◆	3 Rotor Bearing (2)	2131-97	#	1B	Inlet Bushing Seal	-----
◆◆	4 Vane Packet (set of 6 Vanes) (yellow)	2131-42A-6		1C	Tilt Valve Spring	-----
5	Rotor	2131-53		1D	Tilt Valve	-----
◆	6 Rear Rotor Bearing Retainer ..	2131-6		1E	Tilt Valve Seat	-----
#◆◆	7 Motor Gasket	2131-283		1F	Tilt Valve Seat Support	-----
+	8 Anvil Assembly (1/2" square drive) (2" extended length) ...	2131-A414-2		1G	Tilt Valve Seat Retainer	-----
◆◆	9 Socket Retainer	231-425A		27	Inlet Retainer Clip	2131-57
◆◆	10 Socket Retainer O-ring	R1A-159	•	28	Trigger Assembly	2131-A93
+	11 Hammer Case Screw (4)	2131-638	#◆	2A	Trigger O-ring	-----
	12 Hammer Frame Assembly	2131-A703		30	Reverse Valve Assembly	2131-A329
	13 Hammer Frame	2131-703	#◆	3A	Reverse Valve O-ring (top)	-----
	14 Hammer (2)	2131-724	#◆	3B	Reverse Valve O-ring (bottom) (blue)	-----
+	15 Hammer Case Assembly	2131-A727		33	Button Kit	2131-K75
	16 Hammer Case Bushing	2131-941		4A	Forward Button	-----
	17 Hammer Case Grease Fitting	D0F9-879		4B	Reverse Button	-----
#◆+	18 Hammer Case Gasket	2131-36		35	Power Management Assembly	2131-A249
	19 Housing Assembly	2131-B40	#◆	5A	Power Management Dial Seal	-----
	19A Nameplate	2131-301A		37	Inlet Clip Removal Tool	2131-322
	19B Housing Label	2131-99A				
	Inlet Bushing Assembly	2131-A565				
	20 Inlet Bushing	2131-565				
◆	20A Inlet Bushing Screen ...	5RA-61				

◆ Indicates Tune-up Kit part.

+ Indicates Hammer Kit part.

Indicates Seal 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 INSTRUCTIONS
SECTION D'ENTRETIEN
WARTUNG
SEZIONE DI MANUTENZIONE
INSTRUCCIONES DE MANTENIMIENTO
ONDERHOUD**

PART NUMBER FOR ORDERING
REFERENCE POUR COMMANDE DE LA PIECE
BESTELNUMBER
NUMERO DEL PEZZO PER L'ORDINAZIONE
SIMBOLO DE LA PIEZA PARA PEDIDOS
BESTELNUMMERS



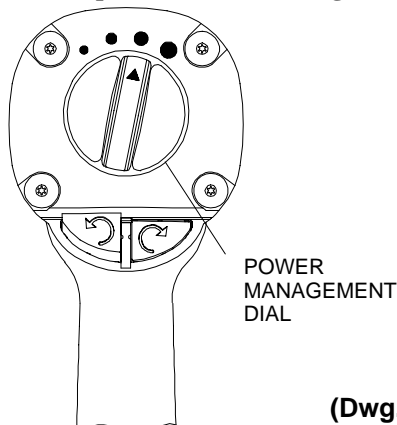
*	Grease (1 lb) (for external lubrication of the impact mechanism)	115-1LB	*	Seal Kit (includes illustrated items 1B, 2A, 3A, 3B, 5A, 7 and 18)	2131-K36
*	Grease (for lubrication when disassembling and assembling the impact mechanism)		*	Tune-up Kit (includes items 2A, 3A, 3B, 5A, 3 [2], 4 [6], 6, 7, 9, 10, 18 20A and 20B)	2131-TK2
	1 lb	105-1LB	*	Hammer Kit (for 2131-2)	
	8 lb	105-8LB		(includes illustrated items 11 [4], 14 [2], 18 and Anvil Assembly part number	
*	Protective Cover	2131-P32		2131-A414-2)	2131-THK1-2
*	Grease Gun	R000A2-228			

* Not illustrated.

USING THE POWER MANAGEMENT SYSTEM

⚠ WARNING

Impact wrenches are not torque wrenches. Connections requiring specific torque must be checked with a torque meter after fitting with an air wrench.



(Dwg. TPD1752)

Model 2131FRC-2 Impact Wrench incorporates a Power Management System that is locked into power output setting “C”. The Impact Wrench will always operate at maximum power output in the reverse direction.

NOTICE

This power setting indicator on the rear of this tool is locked in position “C”. Do not try to force the Regulator to another position. The power setting indicator indicates a power output level, is for reference only and DOES NOT denote a specific power output.

The power output can be further reduced in forward or reverse by using the variable throttle. Also, air supply systems which do not deliver adequate air pressure can affect power output at all settings.

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.

Do not test subassemblies unless they are installed in the tool with the Hammer Case (15) installed and properly secured to the Motor Housing (19). Failure to do so could result in injury.

LUBRICATION

Each time a Model 2131FRC-2 Impact Wrench is disassembled for maintenance and repair or replacement of parts, lubricate the tool as follows:

1. If the impact mechanism is not disassembled but grease needs to be added, inject Ingersoll-Rand No. 115-1LB Grease through the Hammer Case Grease Fitting (17). If the impact mechanism is disassembled, work approximately 14 cc (4.5 tsp) of Ingersoll-Rand No. 105-1LB or No. Ingersoll-Rand 105-8LB Grease into the impact mechanism. Coat the Anvil (8) lightly with grease around the Hammer Case Bushing (16).

NOTICE

Be sure to grease the lug end of the Anvil.

2. Use Ingersoll-Rand No. 50 Oil for lubricating the motor. Inject approximately 1 to 2 cc of oil into the air inlet before attaching the air hose.

DISASSEMBLY

General Instructions

1. Do not disassemble the tool any further than necessary to replace or repair damaged parts.
2. Whenever grasping a tool or part in a vise, always use leather-covered vise jaws to protect the surface of the part and help prevent distortion. This is particularly true of threaded members and housings.

NOTICE

Always use leather-covered vise jaws when clamping the handle in a vise. Leather will conform to the shape of the handle and allow the

tool to be held securely. To prevent damage to the exhaust diffuser, never clamp only the bottom of the handle.

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 Air Wrench

1. Clamp the handle of the tool in a vise with leather-covered jaws with the square driver positioned horizontally.

NOTICE

Avoid excessive clamping pressure which can damage the Housing and can cause difficulty when removing the parts.

2. Unscrew and remove the four Hammer Case Screws (11).
3. While lightly tapping on the end of the Anvil (8) with a plastic hammer, lift off the Hammer Case (15) and Hammer Case Gasket (18).

NOTICE

The Front End Plate (2) might come off during the removal of the Hammer Case. Make sure that it does not drop on the floor or strike a hard or metallic surface since it might be damaged.

4. Grasp the Hammer Frame (12) and carefully lift off the entire impact mechanism, making certain not to drop the two Hammer Pins (13).

Disassembly of the Impact Mechanism

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

NOTICE

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

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

MAINTENANCE SECTION

NOTICE

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

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

NOTICE

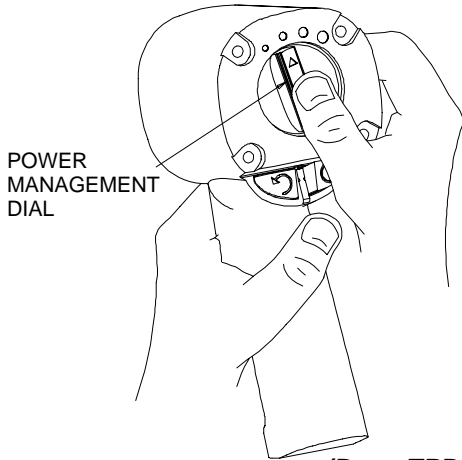
The twin hammers are now free to slide from the Hammer Frame. Be careful do not to drop them.

Disassembly of the Motor

NOTICE

When pulling, disassembling or assembling the motor, we recommend replacement of the Motor Gasket (7).

1. Remove the Motor Assembly from the Housing (19) by pushing on Power Management Dial (35) from the back of the Housing. Refer to Dwg. TPD1322.



(Dwg. TPD1322)

NOTICE

If the Motor Assembly cannot be removed from the Housing by pushing, tap the Power Management Dial lightly until the Motor Assembly is free.

2. Remove the Power Management Dial from the rear of the Cylinder (1). Remove the Power Management Dial Seal (5A) if it needs to be replaced.
3. Remove the Front End Plate (2) from the Cylinder by tapping the splined end of the Rotor (5) with a plastic hammer. If the Front End Plate does not come loose, secure a center punch in a vise with the point angled downward and outward from the vise. Grasp the Cylinder and Front End Plate in one hand and position the hole in the end of the Rotor against the punch.

NOTICE

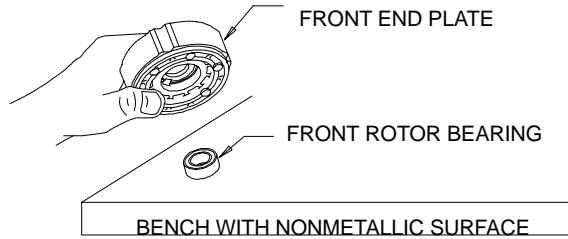
Be careful not to drop the Cylinder since it can be damaged by hitting a hard surface.

Using the other hand, tap the punch with a hammer while pressing the Rotor against the punch. After a few taps, the Front End Plate will slide off of the Cylinder.

NOTICE

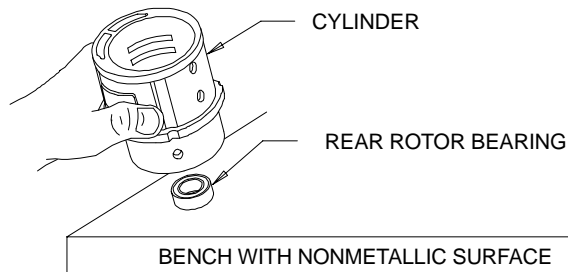
To prevent damage to the Cylinder, do not tap or strike Cylinder on a hard or metallic surface when removing the Rotor Bearings (3).

To remove the Front Rotor Bearing, hold the Front End Plate with Front Rotor Bearing down and tap the Front End Plate on a flat, nonmetallic surface such as a work bench. This will loosen the Front Rotor Bearing so that it will drop out of the Front End Plate. Refer to Dwg. TPA1323.



(Dwg. TPD1323)

4. Remove the Rear Rotor Bearing Retainer(6) from the rear of the Rotor. The Rotor can now be removed from the Cylinder. Remove the Vanes (4) from the Rotor if they need to be replaced.



(Dwg. TPD1324)

5. To remove the Rear Rotor Bearing, hold the Cylinder with the Rear Rotor Bearing down and tap the Cylinder on a flat, nonmetallic surface such as a work bench. This will loosen the Rear Rotor Bearing so that it will drop out of the Cylinder. Refer to Dwg. TPD1324.
6. Working from the rear of the Housing, push out the Motor Gasket (7).

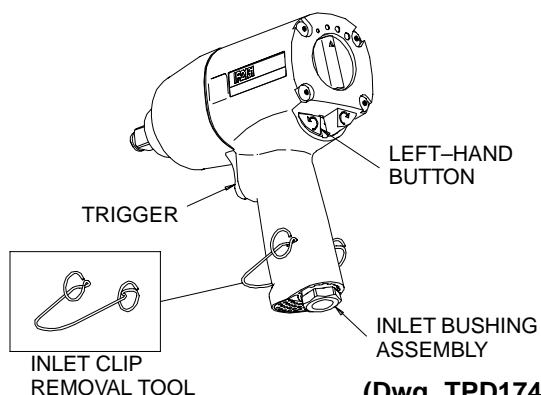
NOTICE

When removing the Motor Gasket, do not use a screwdriver or any other sharp object which could damage the Gasket and/or Housing.

Disassembly of the Throttle Mechanism

NOTICE

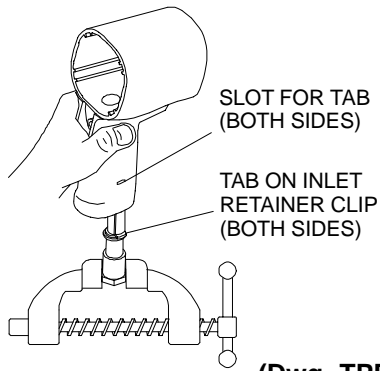
For ease of disassembly, we recommend using the Inlet Clip Removal Tool (37). Refer to Dwg. TPD1749.



(Dwg. TPD1749)

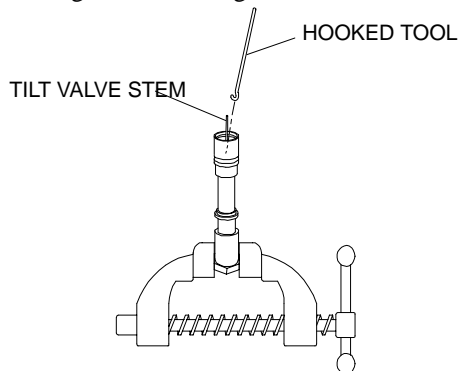
MAINTENANCE SECTION

1. Secure the Inlet Bushing in a vise. Press in both tabs of the Inlet Retainer Clip (27) and pull upward on the Housing (19). This will allow the Inlet Bushing to come free from the Handle of the Housing. Refer to Dwg. TPD1326.
2. Pull the Trigger (28) from the front of the Housing and remove the Trigger O-ring (2A).



(Dwg. TPD1326)

3. With the Inlet Bushing still in the vise, remove the Tilt Valve Seat Retainer (1G) and Tilt Valve Seat Support (1F). Use a hooked tool with no sharp edges to remove the Tilt Valve Seat (1E) from the Inlet Bushing. Refer to Dwg. TPD1327.



(Dwg. TPD1327)

4. Remove the Tilt Valve (1D) and Tilt Valve Spring (1C) if damaged.
5. Remove the Inlet Bushing Seal (1B) and Inlet Retainer Clip (27) if damaged. Remove Washer (1A).

NOTICE

Do not remove the Inlet Bushing Screen (20A) from the Inlet Bushing unless it is damaged. Clean the Inlet Bushing Screen by using a suitable cleaning solution in a well ventilated area. Disassembly of the Reverse Valve Mechanism

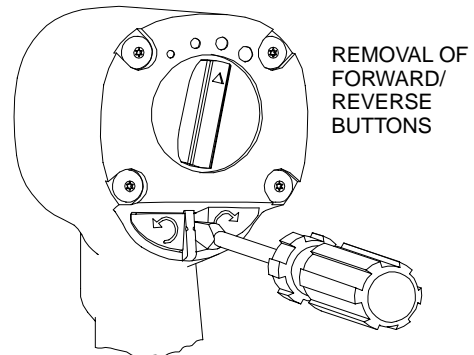
Disassembly of the Reverse Valve Mechanism

NOTICE

The Reverse Valve Assembly cannot be removed without first removing the Forward and Reverse Buttons (4A) and (4B). Therefore, it is important that the procedure below be followed exactly.

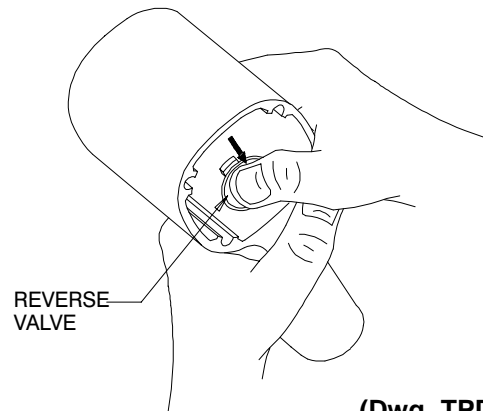
1. Notice the notches on either side of the partition. These notches indicate the correct location for insertion of a thin-bladed screwdriver used for removing the Forward and Reverse Buttons. Insert the screwdriver between the partition and the Button

which is fully extended. **Gently** pry against the Button to disengage the detent so that the Button can be removed. After the Button is removed, reach inside the Housing and rotate the Reverse Valve to extend the remaining Button. Repeat the above procedure for the remaining Button. Refer to Dwg. TPD1328.



(Dwg. TPD1328)

2. Insert thumb into the front of the Housing and push **down** on the Reverse Valve so that it can be removed through the bottom of the handle. Refer to Dwg. TPD1329.



(Dwg. TPD1329)

NOTICE

Do not try to remove the Reverse Valve by pushing upward. It can only be removed by pushing it downward and out of the bottom of the handle. If the Reverse Valve does not come free, tap the bottom of the handle lightly with a rubber hammer until it drops out.

3. Remove the Top Reverse Valve O-ring (3A) and the Bottom Reverse Valve O-ring (3B) from the Reverse Valve.

ASSEMBLY

General Instructions

1. Whenever grasping a tool or part in a vise, always use leather-covered vise jaws to protect the surface of the part and help prevent distortion. This is particularly true of threaded members and housings.

NOTICE

Always use leather-covered vise jaws when clamping the handle in a vise. Leather will conform to the shape of the handle and allow the tool to be held securely. To prevent damage to the exhaust diffuser, never clamp only the bottom of the handle.

MAINTENANCE SECTION

2. Always clean every part and wipe every part with a thin film of oil before installation.

NOTICE

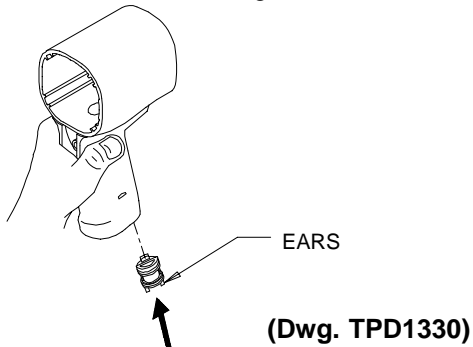
Do not remove grease from the impact mechanism or Hammer Case (15). If the impact mechanism has not been disassembled, inject Ingersoll-Rand No. 115-1LB Grease through the Hammer Case Grease Fitting (17).

When disassembling and assembling the impact mechanism, remove all grease from the impact mechanism and Hammer Case and lubricate the impact mechanism and Hammer Case Bushing (16) with Ingersoll-Rand No. 105-1LB Grease or Ingersoll-Rand No. 105-8LB Grease.

3. Apply a film of o-ring lubricant to all O-rings before final assembly.

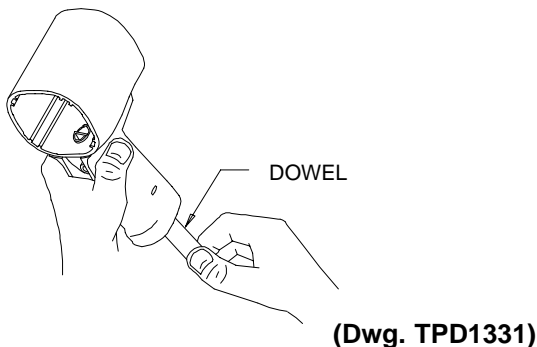
Assembly of the Reverse Valve Mechanism

1. Install the Bottom Reverse Valve O-ring (3B) (color-coded blue) and the Top Reverse Valve bring (3A) on the Reverse Valve (30).
2. Insert the Reverse Valve in the bottom of the handle making sure that two ears on the Reverse Valve are facing downward. Refer to Dwg. TPD1330.



Use a wooden dowel to push the Reverse Valve up through the handle **until the top of the Reverse Valve is flush with or slightly above the bottom of the motor bore in the Housing (19).**

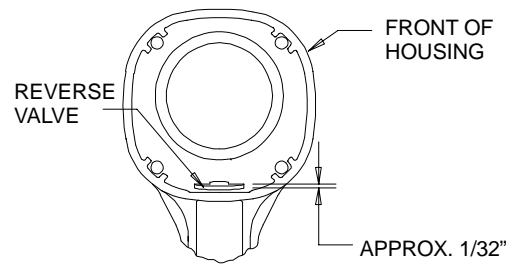
Refer to Dwg. TPD1331.



NOTICE

If the Reverse Valve is pushed up too far and becomes wedged, it will have to be pushed back down through the the handle and re-inserted from the bottom of the handle. The Reverse Valve cannot be removed by pushing it up through the handle and into the motor bore. If the Reverse Valve must be removed and re-installed, make sure that the Top and Bottom Reverse Valve O-rings have not been rolled off and are in their proper positions on the Reverse Valve.

3. When the Reverse Valve has been installed, rotate the Reverse Valve so that the tab on the Reverse Valve is at the rear of the Housing. Refer to Dwg. TPD1332.

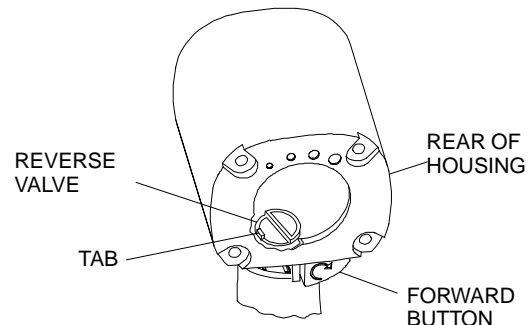


(Dwg. TPD1332)

NOTICE

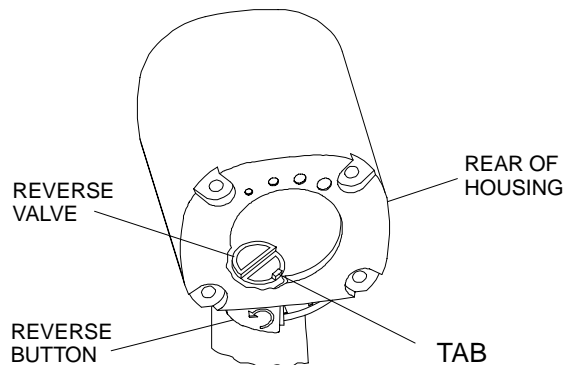
If the orientation of the Reverse Valve is not correct (tab facing the the rear of the Housing), the Trigger and the Forward and Reverse Buttons (4A) and (4B) cannot be installed.

4. Install the Trigger O-ring (2A) on the Trigger. Insert the Trigger Assembly in the front of the Housing.
5. Rotate the Reverse Valve in either direction until an ear comes up against the Trigger.
6. Look through the Housing from the **rear**. If the tab on the Reverse Valve has been rotated to the **left**, install the **right** Button in the Housing. When one Button has been installed, push the Button in. This will rotate the Reverse Valve so that the other Button can be installed. Refer to Dwg. TPD1333.



(Dwg. TPD1333)

If the tab on the reverse Valve has been rotated to the right, install the left Button. Refer to Dwg. TPD1334.



(Dwg. TPD1334)

NOTICE

If the Forward/Reverse Buttons will not install easily, move the Reverse Valve slightly higher in the handle to provide better alignment with the Buttons.

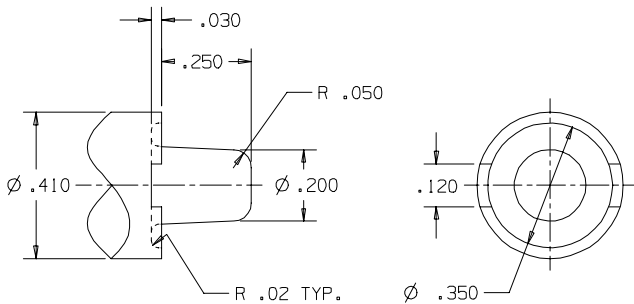
7. After the Forward/Reverse Buttons have been installed, remove the Trigger before proceeding with installation of the throttle mechanism.

MAINTENANCE SECTION

Assembly of Throttle Mechanism

- Using an Inlet Bushing Screen Installation Tool, install the Inlet Bushing Screen (20A), screened end first, in the bottom (hex end) of the Inlet Bushing (20). Insert the rounded end of the tool in the cone formed by the screen and tap the end of the tool to secure the rim of the screen in the Bushing. Refer to Dwg. TPD1473.

Inlet Bushing Screen Installation Tool



(Dwg. TPD1473)

- Install the Washer (1A), Inlet Retainer Clip (21), Inlet Bushing Seal (1B), Tilt Valve Spring (1C), Tilt Valve (1D) Tilt Valve Seat (1E) and Tilt Valve Seat Support (1F).

⚠ WARNING

The Tilt Valve Seat Retainer (1G) must be properly installed in the groove in the Inlet Bushing (20). To check for correct installation of the Retainer, insert a pin into one of the holes in the Retainer and rotate the Retainer. A correctly installed Retainer will rotate freely but with some resistance in the groove of the Inlet Bushing. An incorrectly installed Retainer will pop out of the Inlet Bushing when the Retainer is rotated.

⚠ WARNING

Do not use compressed air to check installation of the Tilt Valve Seat Retainer or Inlet Bushing Screen unless the entire Inlet Bushing Assembly is installed in the tool with the Hammer Case installed and properly secured to the Motor Housing. Failure to do so could result in injury. Install the Tilt Valve Seat Retainer.

NOTICE

When re-installing the Inlet Bushing Assembly (20), pull the Trigger (28) outward and make sure that the Reverse Button (4B) is depressed before snapping the Inlet Bushing Assembly back into the Housing.

- Install the Inlet Bushing Assembly by pushing it into the hole in the Housing until you see and hear the tabs on Inlet Retainer Clip snap into place through the slots in Housing handle.

NOTICE

The Reverse Button (left) (4B) must be pushed in before the Trigger can be installed. Otherwise, the Trigger will be damaged during installation.

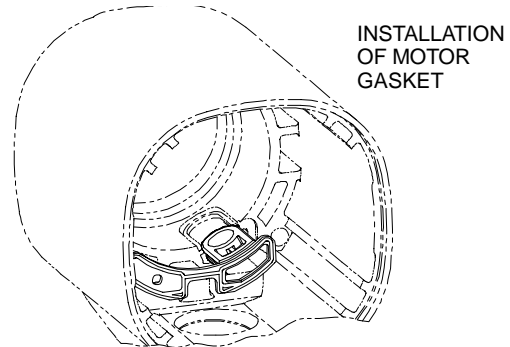
- Install the Trigger by pushing it into the handle until a click is heard indicating that it is properly engaged

Assembly of the Motor

NOTICE

When disassembling, assembling or pulling the Motor, we recommend replacement of the Motor Gasket (7).

- Install the Motor Gasket in the Housing making sure that the grooves in the tab of the Motor Gasket fit around ridge in the Housing. Refer to Dwg. TPD1336.



(Dwg. TPD1336)

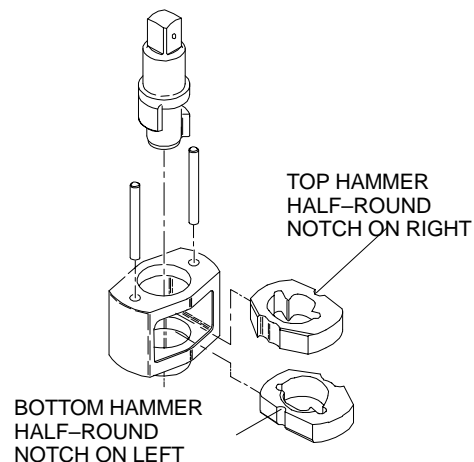
- Install the Rear Rotor Bearing (3) into the rear of the Cylinder (1).
- Install the Rotor in the Cylinder and secure with the Rear Rotor Bearing Retainer (6).
- Install Vanes (4) in the slots in the Rotor (5).
- Install the Front Rotor Bearing (3) into the Front End Plate (2). Install the Front End Plate on the Cylinder by pressing on the inner race of the front Rotor Bearing until the Bearing is seated on the Rotor Shaft.
- Install the Power Management Dial Seal (5A) on the Power Management Dial (35) and install the Dial in the end of the Cylinder.

NOTICE

The Power Management Dial is properly installed by inserting the tab on the Power Management Dial into the open space between the three balls pressed into the power selection area of the rear of the Cylinder. When installed in this manner, the Dial can not be moved. If it is not properly installed, the Power Management Dial will not fit into the rear of the Cylinder.

- Insert the Motor Assembly into the Housing (19), Power Management Dial end first.

Assembly of the Impact Mechanism



(Dwg. TPD1535)

- Coat the Hammers (14) with a light film of No. Ingersoll-Rand 105-1LB Grease or Ingersoll-Rand No. 105-8LB Grease.

MAINTENANCE SECTION

2. Apply a heavy coat of Ingersoll-Rand No. 105-1LB Grease or Ingersoll-Rand No. 105-8LB Grease to the jaws of the Anvil (8).
3. Replace the Hammers in the Hammer Frame (12) exactly as they were when you marked them prior to disassembly.

NOTICE

If you are installing new Hammers or want to change the location of the existing Hammers to utilize both impacting surfaces, slide the Hammers in the Hammer Frame so that the half-round notch on one Hammer is located on one side of the Frame and the half-round notch on the other Hammer is located on the other side of the Frame.

4. Replace the Hammer Pins (13).
5. Examine the base of the Anvil (8) and note its contour. While looking down through the Hammer Frame, swing the top Hammer to its full extreme one way or another until you can match the contour of the Anvil. Enter the Anvil into the Hammer Frame and through the first Hammer. Swing the bottom Hammer in the opposite direction from the top Hammer and maneuver the Anvil slightly until it drops into the bottom Hammer. Refer to Dwg. TPD1535.

Assembly of the Air Wrench

1. Position the Motor Housing (19) in leather-covered vise jaws with the splined shaft of the Rotor in a horizontal position.
2. Place the assembled impact mechanism down onto the splined hub of the Rotor.

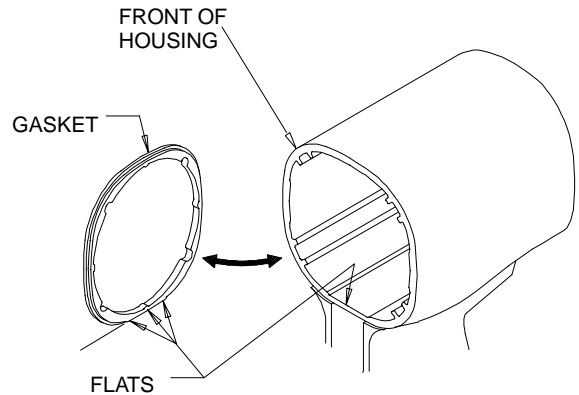
3. Position the Hammer Case Gasket (18) against the face of the Motor Housing.

NOTICE

Be sure that the flat on the bottom of the Hammer Case Gasket is installed in the corresponding flat in the Housing. If the Hammer Case Gasket is not installed correctly, the Air Wrench will not function properly.

Refer to Dwg. TPD1335-1.

4. Apply a thin film of Ingersoll-Rand No. 105-1LB Grease or Ingersoll-Rand 105-8LB Grease on inside surface of the Hammer Case Bushing (16), and place the Hammer Case (15) down over the Anvil and against the Motor Housing.



(Dwg. TPD1335-1)

5. Install the Hammer Case Screws (11) and tighten them to 25 in-lb (2.8 Nm) torque.

MAINTENANCE SECTION

TROUBLESHOOTING GUIDE

Trouble	Probable Cause	Solution
Low power	Dry Motor	Daily , inject 3 cc of Ingersoll–Rand No. 50 Oil into the inlet and run the tool to lubricate the motor.
	Inadequate air supply	Install proper air supply and connection. Refer to Dwg. TPD905–1 and Dwg. TPD1674–1 on pages 2 and 3.
	Dirty Inlet bushing Screen	Using a clean, suitable, cleaning solution in a well ventilated area, clean the Inlet Bushing Screen.
	Worn or broken Vanes	Replace a complete set of Vanes
	Worn or broken Cylinder and/or scored End Plates	Examine Cylinder. Check outside and ends for wear or damage and inside for scored or wavy bore. Replace Cylinder if any of these conditions exist. Replace End Plates if they are scored.
	Dirty motor parts.	Disassemble the Tool and clean in a clean, suitable, cleaning solution in a well ventilated area. Assemble the Tool and inject 3 cc of the recommended oil into Inlet and run Tool to lubricate internal parts.
	Damaged Reverse Valve	Replace Reverse Valve. Refer to Installation of Reverse Valve .
Motor will not run	Incorrect assembly of motor	Disassemble motor and replace worn or broken parts and reassemble. Refer to Assembly of the Motor .
	Insufficient lubricant in impact mechanism.	Lubricate impact mechanism through Hammer Case Grease Fitting using the recommended grease.
Tool will not impact	Broken or worn impact mechanism parts	Remove Hammer Case Assembly and examine impact mechanism parts. Replace any worn or broken parts.
	Impact mechanism assembled incorrectly.	Refer to Assembly of Impact Mechanism .

NOTICE

SAVE THESE INSTRUCTIONS. DO NOT DESTROY.

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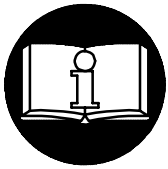
VEJLEDNING TIL ULTRASTÆRKE SLAGNØGLER TIL AUTOBRANCHEN, MODEL 2131FRC-2

BEMÆRK

Slagnøgler model 2131FRC-2 er designet til brug ved almindeligt forekommende reparationsarbejde inden for autobranche, herunder dækskifte, samt ekstra krævende arbejde på større vognparker.

Ingersoll-Rand påtager sig intet ansvar for eventuelle ændringer af værktøjer udført af brugeren i forbindelse med anvendelsesområder, som Ingersoll-Rand ikke på forhånd er blevet konsulteret om.

⚠ ADVARSEL!



INDEHOLDER VIGTIG SIKKERHEDSINFORMATION.
DENNE VEJLEDNING SKAL LÆSES FØR BETJENING AF VÆRKTØJET.
DET ER ARBEJDSGIVERENS ANSVAR AT SØRGE FOR, AT INDHOLDET
AF DENNE VEJLEDNING BRINGES TIL OPERATØRENS KUNDSKAB.

MANGLENDE IAGTTAGELSE AF DISSE ADVARSLER KAN RESULTERE I PERSONSKADE.

IBRUGTAGNING AF VÆRKTØJET

- Dette værktøj skal altid betjenes, kontrolleres og vedligeholdes i overensstemmelse med de gældende lokale og nationale regler for manuelle trykluftværktøjer.
- Af sikkerhedshensyn og for at opnå den bedst mulige ydelse og levetid for værktøjskomponenterne, skal værktøjet bruges ved et maksimalt indgangslufttryk på 6,2 bar og med en lufttilførselsslange, der har en indvendig diameter på 10 mm.
- Der skal altid lukkes for lufttilførslen, og lufttilførselsslangen skal afmonteres før installation, afmontering eller justering af tilbehør til dette værktøj, eller før der udføres vedligeholdelsesarbejde på værktøjet.
- Der må ikke bruges beskadigede, flossede eller nedslidte luftslanger og tilbehør.
- Det skal sikres, at alle slanger og alt tilbehør er af den korrekte størrelse og er sikkert monteret. Se tegning TPD905-1, som viser en typisk rørføring.
- Der skal altid bruges ren, tør luft ved et maksimalt lufttryk på 6,2 bar. Støv, korroderende dampe og/eller for høj fugtighed kan ødelægge motoren i et trykluftværktøj.
- Værktøjer må ikke smøres med brændbare eller flygtige væsker så som petroleum, dieselolie eller flybrændstof.
- Mærkater må ikke fjernes. Eventuelt beskadigede mærkater skal udskiftes.
- Det anbefales af bruge en slangeafstiver. Montering af kobling direkte på lufttilslutningen gør værktøjet tungere og mindre håndterligt.
- Dette værktøj skal altid bruges med en lufttilførselsslange, der har en indvendig diameter på 10 mm. For at opnå den bedst mulige værktøjsydelse, skal koblingen på væggen være én størrelse større end koblingen på værktøjet. Koblingen tættest på værktøjet bør ikke være mindre end den korrekte luftslanges størrelse.

ANVENDELSE AF VÆRKTØJET

- Der skal altid bruges beskyttelsesbriller under betjening eller vedligeholdelse af dette værktøj.
- Der skal altid bruges høreværn under betjening af dette værktøj.
- Hænder, løstsiddende tøj og langt hår skal holdes borte fra den roterende ende af værktøjet.
- Omskifterhåndtagets placering skal altid noteres før betjening af værktøjet, så man ved hvilken retning værktøjet roterer i, når det startes.
- Under opstart og betjening af trykluftværktøjer, skal man forsøge at forudse og være særligt opmærksom over for pludselige bevægelsesændringer.
- Der skal hele tiden holdes en kroppsstilling med god balance og godt fodgreb. Som operatør skal man undgå at strække sig for langt under brug af dette værktøj. Der kan forekomme voldsomme reaktionsmomenter ved eller under det anbefalede lufttryk.
- Værktøjets aksel kan fortsætte med at rotere et kort stykke tid, efter man har sluppet håndtaget.
- Trykluftværktøjer kan vibrere under brug. Vibration, hyppigt gentagne bevægelser og ubekvemme stillinger kan være skadelige for operatørens hænder og arme. Brug af værktøjet bør ophøre, hvis man føler nogen form for gener, en snurrende fornemmelse i kroppen eller smerter. Der skal søges lægehjælp, før brug af værktøjet genoptages.
- Der må kun bruges tilbehør, som anbefales af Ingersoll-Rand.
- Der må kun bruges krafttoppe og tilbehør. Der må ikke bruges (krom)toppe eller tilbehør til manuel betjening.
- En slagnøgle er ikke en momentnøgle. Tilspændinger, der kræver et bestemt moment, skal efter montering med en slagnøgle kontrolleres ved hjælp af en momentmåler.
- Dette værktøj er ikke designet til brug i eksplosive arbejdsmiljøer.
- Dette værktøj er ikke isoleret mod elektriske stød.

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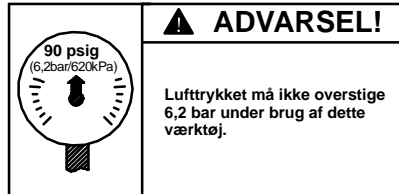
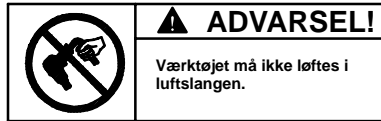
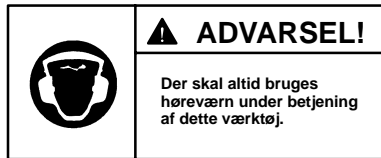
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⚠ ADVARSEL!

MANGLENDE IAGTTAGELSE AF DISSE ADVARSLER KAN RESULTERE I PERSONSKADE.



IBRUGTAGNING AF VÆRKTØJET

SMØRING



Ingersoll-Rand nr. 50



Ingersoll-Rand nr. 115-1LB bør bruges til rutinemæssig smøring af hammermekanismen via smøreanordningen i hammerhuset.

Ingersoll-Rand nr. 105-1LB eller Ingersoll-Rand nr. 105-8LB bør bruges i forbindelse med demontering og genmontering af hammermekanismen.

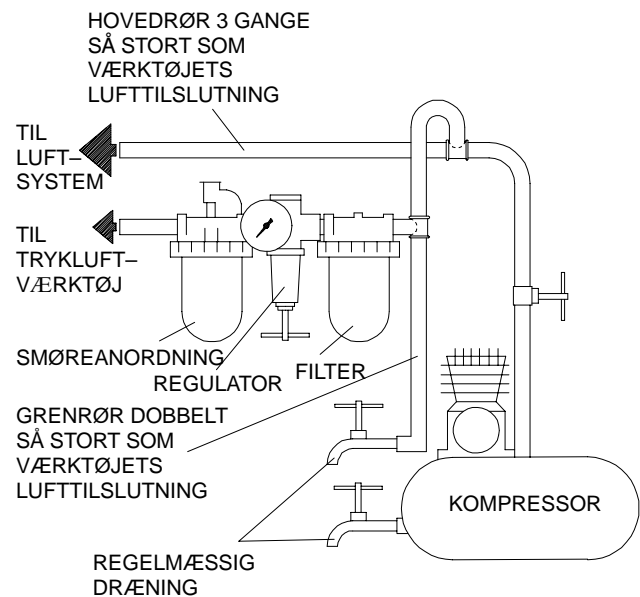
Der skal altid bruges luftledningssmøring til disse værktøjer.

Vi anbefaler følgende filter-, smøreanordnings- og reguleringsenhed:

I USA – nr. C18-03-FKG0-28
Internationalt – nr. C18-C3-FKG0

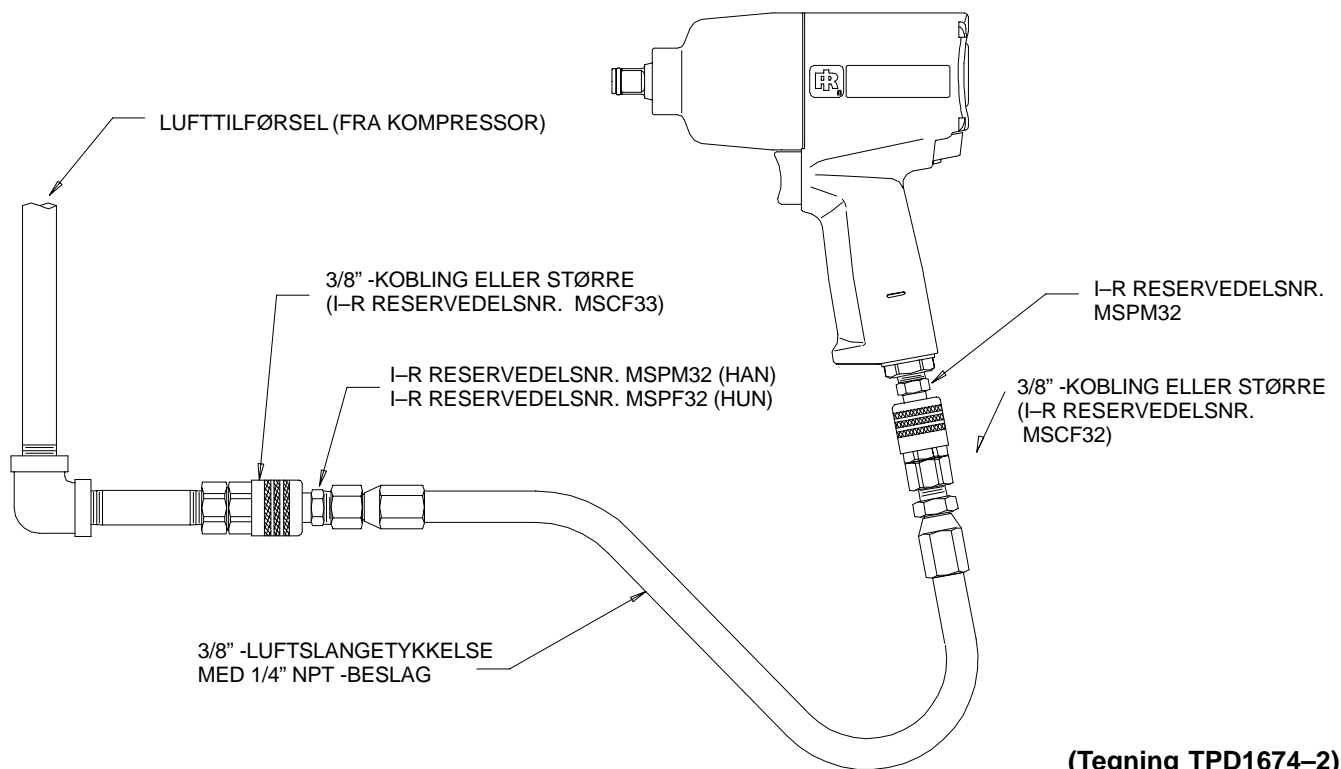
FORSIGTIG

Der må ikke sættes kundeidentifikationsmærker på de af værktøjets overflader, der ikke er af metal. Dette kan forringe værktøjets levetid.



(Tegning TPD905-1)

IBRUGTAGNING AF VÆRKTØJET



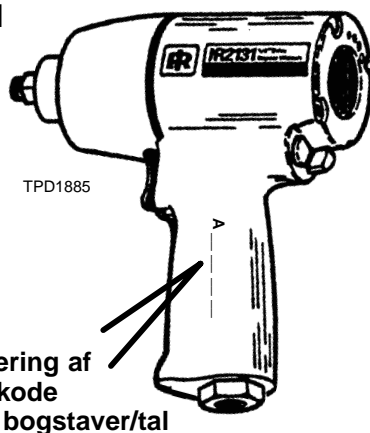
SPECIFIKATIONER

Model	Håndtags- type	Firkant	Slag/min.	Anbefalet momentområde		■ Lydniveau dB (A)		◆ Vibrations- niveau
				Frem ft-lb (Nm)	Bak ft-lb (Nm)	Tryk	Effekt	m/s ²
2131FRC-2	pistolgreb	1/2" (2"-forlænger)	1.250	*	550 (maks. 600) 746 (maks. 813)	95,5	108,5	5,7

* Trykluftregulatoren på model 2131FRC-2 er låst i en bestemt position og kan ikke justeres. Arbejdsmomentet skal kontrolleres ved hjælp af en momentmåler, når værktøjet bruges under almindelige værkstedsforhold.

- Afprøvet i overensstemmelse med PNEUROP PN8NTC1.2
- ◆ Afprøvet i overensstemmelse med ISO8662-1

2131



FABRIKATIONSERKLÆRING

Vi _____ *Ingersoll-Rand, Co.* _____
(leverandørens navn)

_____ *78192 Trappes Cedex France* _____
(adresse)

erklærer som eneansvarlig, at nedenstående produkt,

_____ *Ultrastærke slagnøgler til autobranchen, model 2131FRC-2* _____

som denne erklæring vedrører, overholder bestemmelserne i følgende direktiver,

_____ *98/37/EF* _____

ved at være i overensstemmelse med følgende hovedstandard(er):

_____ *ISO8662, PNEUROP PN8NTC1* _____

Serienr. _____ *(1999 →) A99M XXXXX →* _____



D. Vose
Ansvarliges navn og underskrift



Kevin R. Morey
Ansvarliges navn og underskrift

_____ *December, 1999* _____

Dato

_____ *December, 1999* _____

Dato

BEMÆRK

DENNE VEJLEDNING BØR GEMMES. MÅ IKKE DESTRUERES.

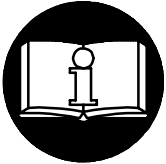
Efter værktøjets levetid anbefales det at demontere og affedte værktøjet, og opdele de adskilte komponenter ud fra materialetypen, så de kan genbruges.

INSTRUKTIONER FÖR MUTTEREDRAGARE MED SLAGMEKANISM, MODELL, 2131FRC-2

OBS!

Mutterdragare, modell 2131FRC-2 med slagmekanism är konstruerade för användning på bilverkstäder, däckverkstäder och för underhåll av tunga fordon.

Ingersoll-Rand är inte ansvarigt för verktyg som har modifierats av kunden för att anpassas till andra användningar, om inte kunden har konsulterat Ingersoll-Rand.



⚠ VARNING

**VIKTIG SÄKERHETSINFORMATION MEDFÖLJER.
LÄS DENNA HANDBOK INNAN VERKTYGET ANVÄNDS.**

DET ÅLIGGER ARBETSGIVAREN ATT SE TILL ATT DE ANSTÄLLDA SOM SKALL ANVÄNDA VERKTYGEN ÄR FÖRTROGNA MED HANDBOKENS INNEHÅLL.

**UNDERLÅTELSE ATT IAKTTAGA FÖLJANDE VARNINGAR KAN MEDFÖRA PERSONSKADA.
INNAN VERKTYGET ANVÄNDS**

- Användning, inspektion och underhåll av verktyget skall alltid ske i enlighet med på användningsplatsen rådande myndigheters gällande regler för handhållna mutterdragare.
- För säkerhet, bästa effektivitet och maximal livslängd bör detta verktyg användas med ett maximalt lufttryck på 6,2 bar/620 kPa (90 psi) vid intaget och med en matarslang med en innerdiameter på 10 mm (3/8 tum).
- Stäng alltid av lufttillförseln och koppla bort matarslangen innan du monterar, avlägsnar eller justerar några tillbehör till detta verktyg och innan du utför service på verktyget.
- Använd aldrig skadade, slitna eller trasiga luftslangar och kopplingar.
- Se till att alla slangar och kopplingar är av rätt storlek och ordentligt fastsatta. Se bild TPD905-1 för en typisk installation.
- Använd alltid ren, torr luft och ett maximalt lufttryck på 6,2 bar (90 psi). Damm, frätande ångor och/eller för hög fuktighet kan förstöra motorn på en mutterdragare.
- Smörj aldrig verktygen med lättantändliga eller flyktiga vätskor, som t.ex. fotogen, diesel- eller flygbränsle.
- Avlägsna ej etiketterna. Byt ut skadade etiketter.
- Användning av slangsockel rekommenderas. Om kopplingen ansluts direkt till luftslangen ökar verktygets vikt och dess manöverbarhet minskar.
- Använd alltid verktyget med 10 mm (3/8") luftslang. För maximal prestanda ska kopplingen på väggen vara en dimension större än på verktyget. Den koppling som sitter närmast verktyget bör inte ha mindre dimension än den angivna dimensionen på luftslangen.

VERKTYGETS ANVÄNDNING

- Använd alltid skyddsglasögon när du använder eller utför service på detta verktyg.
- Använd alltid hörselskydd när du använder detta verktyg.
- Håll händer, lösa kläder och långt hår på avstånd från den roterande verktygsdelen.
- Lägg märke till vilket läge reverseringsvredet har innan verktyget startas, så att du vet åt vilket håll verktyget roterar när du öppnar ventilen.
- Förutse och var uppmärksam på plötsliga rörelseförändringar vid start och drift av alla motordrivna verktyg.
- Stå stadigt, med god balans. Sträck dig inte för långt över verktyget när du arbetar. Höga reaktionsvridmoment kan inträffa vid det rekommenderade lufttrycket.
- Verktyget kan fortsätta rotera en liten stund efter att du har stängt ventilen.
- Tryckluftsdrivna verktyg kan vibrera under användningen. Vibrationer, monotona rörelser eller en obehaglig ställning kan vara skadligt för händer och armar. Upphör att använda ett verktyg om det börjar sticka eller värka i händer och armar. Sök läkare innan du åter använder verktyget.
- Använd sådana tillbehör som rekommenderats av Ingersoll-Rand.
- Använd endast krafthylsor och -tillbehör. Använd inte handverktygshylsor eller -tillbehör (förkromade).
- Slagverktyg är inga momentverktyg. Förbindningar som ska dras till angivna moment måste kontrolleras med en momentmätare efter åtdragning med slagverktyg.
- Detta verktyg är ej avsett att användas i explosiv atmosfär.
- Detta verktyg är ej isolerat mot elektrisk chock.

OBS!

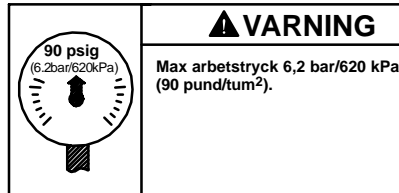
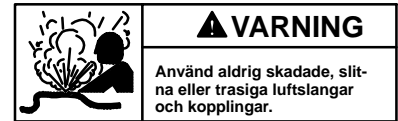
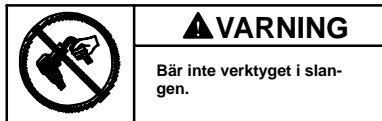
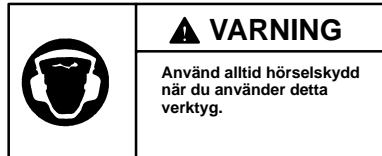
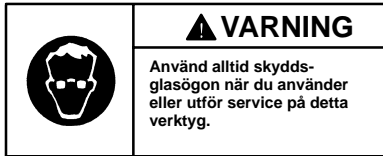
Om andra reservdelar än de från Ingersoll-Rand används, kan detta medföra en säkerhetsrisk, minskad verktygsprestanda och ett ökat servicebehov. Det kan dessutom få till följd att alla garantier blir ogiltiga.

Reparationer får endast utföras av legitimerad, utbildad personal. Rådfråga närmaste legitimerade Ingersoll-Rand servicecenter.

IDENTIFIERING AV VARNINGSETIKETTER

⚠ VARNING

UNDERLÅTELSE ATT IAKTTAGA FÖLJANDE VARNINGAR KAN MEDFÖRA PERSONSKADA.



INNAN VERKTYGET ANVÄNDS

SMÖRJNING



Ingersoll-Rand nr. 50



Använd Ingersoll-Rand nr. 115-1LB för daglig smörjning av slagmekanismen via smörjnippeln på hammarhuset.

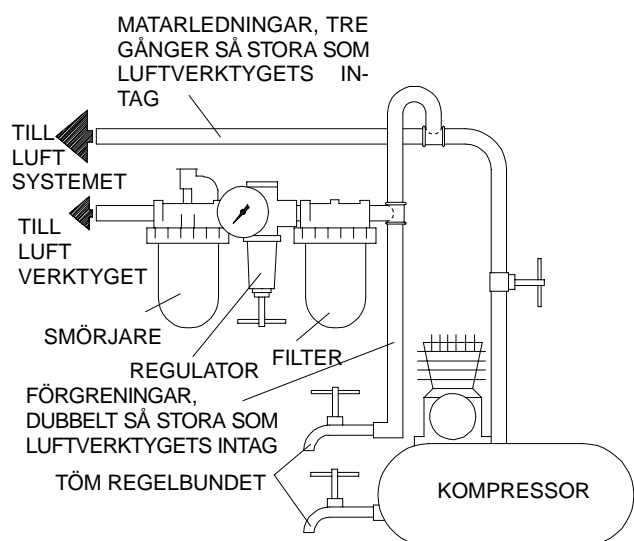
Använd Ingersoll-Rand nr. 105-1LB eller 105-8LB vid demontering och montering av slagmekanismen.

Använd alltid tryckluftsmörjare med dessa verktyg. Vi rekommenderar följande enhet som filtersmörjarregulator:

I USA: nr. C18-03-FKG0-28
Internationellt: nr. C18-C3-FKG0

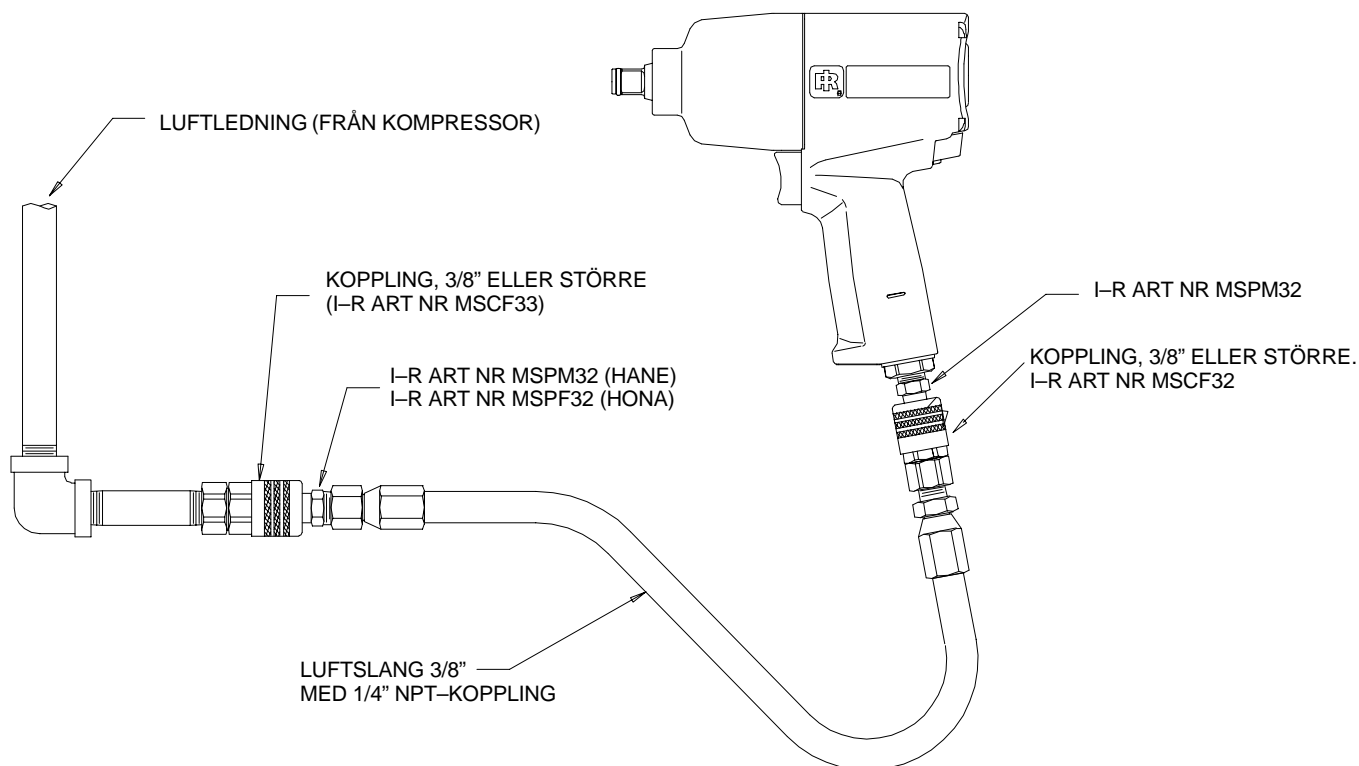
OBS!

Inga av detta verktygs icke-metalliska ytor får märkas med kundens identifieringskod. Detta kan medföra att verktygets funktion påverkas.



(Bild. TPD905-1)

INNAN VERKTYGET ANVÄNDS



(Bild. TPD1674-2)

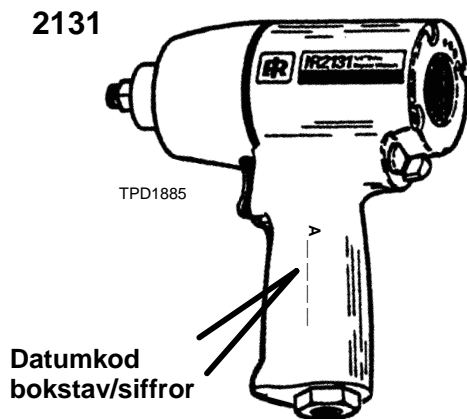
SPECIFIKATIONER

Modell	Handtag	Fyrkantstapptum	Fri hastighet	Rekommenderat momentområde		Ljudtrycksnivå dB(A)		Vibrationsnivå
				Framåt ft.lbs (Nm)	Bakåt ft.lbs (Nm)	Tryck	Effekt	
2131FRC-2	Pistogrepp	1/2" (2" förl.)	1 250	*	550 (600 Max.) 746 (813 Max.)	95,5	108,5	5,7

* Effektregulatorn på modell 2131FRC-2 är fixerad i ett läge och kan inte justeras. Kontrollera utgående moment med en momentmeter när verktyget används under normala arbetsförhållanden.

■ Testad i enlighet med PNEUROP PN8NTC1.2

◆ Testad i enlighet med ISO 8662-1



FÖRSÄKRAN OM ÖVERENSSTÄMMELSE

Vi Ingersoll-Rand, Co.
(leverantörens namn)

78192 Trappes Cedex France

(adress)

intygar härmed, i enlighet med vårt fullständiga ansvar, att produkten,

Mutteredragare med slagmekanism, modell 2131FRC-2

som detta intyg avser, uppfyller kraven i

98/37/EG Direktiven.

Genom att använda följande principstandard: ISO8662, PNEUROP PN8NTC1

Serienummer, mellan: (1999 →) A99M XXXXX →

D. Vose

Auktoriserade personers namn och underskrift

Kevin R. Morey

Auktoriserade personers namn och underskrift

December, 1999

Datum

December, 1999

Datum

OBS!

SPARA ANVISNINGARNA. FÅR EJ FÖRSTÖRAS.

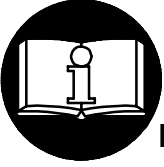
Då verktyget är utslitet, rekommenderar vi att det tas isär och avfettas,
samt att de olika delarna sorteras för återvinning.

INSTRUKSJONER FORMODELL 2131FRC-2 KRAFTIG MUTTERTREKKERE

MERK

Modell 2131FRC-2 muttertrekkere er utformet for bruk innen generell autoreparasjon, dekk-service og ekstra kraftig bruk for bilpark.

Ingersoll-Rand er ikke ansvarlig for verktøymodifikasjoner som utføres av kunden hvor Ingersoll-Rand ikke er rådspurt.



⚠ ADVARSEL

INNEHOLDER VIKTIGE SIKKERHETSINFORMASJONER.
LES DENNE INSTRUKSJONSHÅNDBOKEN FØR VERKTØYET TAS I BRUK.

DET ER ARBEIDSGIVERENS PLIKT Å GI INFORMASJONENE I DENNE
INSTRUKSJONSBOKEN TIL BRUKEREN.

ALVORLIGE PERSONSKADER KAN OPPSTÅ HVIS IKKE FØLGENDE ADVARSLER BLIR
TATT TIL FØLGE.

FØRSTEGANGSBRUK AV VERKTØY

- Bruk, inspiser og vedlikehold alltid dette verktøyet i følge eksisterende lokale og nasjonale forskrifter for håndholdt trykkluftverktøy.
- For best sikkerhet, topp ytelse og maksimal levetid på deler bør dette verktøyet brukes ved maksimalt lufttrykk på 6,2 bar/620 kPa (90 psig) målt ved luftinntaket når en 10 mm (3/8") innvendig diameter trykkslange brukes.
- Steng alltid av lufttilførselen og koble fra lufttilførselslangen før installering, fjerning eller justering av tilbehør, eller før vedlikehold blir utført på dette verktøyet.
- Bruk ikke en skadet, sprukket eller slitt luftslange/kobling.
- Sørg for at alle slanger og koblinger er av riktig størrelse og er tette. Se tegning TPD905-1 for et typisk koblingsarrangement.
- Bruk alltid ren, tørr luft ved 90 psig maksimalt lufttrykk. Støv, etsende gasser og/eller for mye fuktighet kan ødelegge motoren på et trykkluftverktøy.
- Smør ikke verktøyene med brennbare eller ustabile væsker som parafin, diesel eller flybensin.
- Ikke fjern noen merkelapper. Skift ut eventuelle skadede merkelapper.
- Det anbefales å bruke en forsterket slange. En kopling direkte på luftinntaket øker verktøyets omfang og reduserer manøvreringsevnen.
- Bruk alltid verktøyet med en lufttilførsel-slange med en indre diameter på 10 mm. For maksimum yteevne bør koplingen på veggen være en størrelse større enn koplingen som benyttes på verktøyet. Koplingen som er nærmest verktøyet bør ikke være mindre enn den riktige størrelsen på lufttilførsel-slangen.

BRUK AV VERKTØY

- Bruk alltid vernebriller under arbeid med eller vedlikehold av dette verktøy.
- Bruk alltid hørselvern under arbeid med dette verktøy.
- Hold hender, løse klær og langt hår unna rotasjonsdelen på verktøyet.
- Vær oppmerksom på innstillingen på reverseringsknappen før verktøyet tas i bruk slik at man er klar over i hvilken retning verktøyet roterer når man bruker trottelen.
- Forutse, og vær forberedt på plutselige bevegelsesforandringer ved oppstart og bruk av ethvert trykkluftverktøy.
- Hold kroppen i en balansert og fast stilling. Len deg ikke for langt forover under bruken av dette verktøyet. Høye reaksjonsmomenter kan forekomme ved lavere lufttrykk enn det som er anbefalt.
- Verktøyets aksel kan fortsette å rotere en kort stund etter trottelen er frigjort.
- Trykkluftverktøy kan vibrere under bruk. Vibrasjon, gjentatte bevegelser eller ubekvemme stillinger kan være skadelig for hender og armer. Stans bruken av ethvert verktøy ved ubehag, stikkende følelser eller hvis du får smerter. Søk råd fra lege før videre arbeid gjenopptas.
- Bruk tilbehør som er anbefalt av Ingersoll-Rand.
- Bare benytt kraftpiper og tilbehør. Ikke bruk piper (krom) eller tilbehør.
- Muttertrekkere er ikke momentnøkler. Tilkoplinger som trenger spesielt dreiemoment må sjekkes med et momentmeter etter at de er montert med en muttertrekkere.
- Dette verktøyet er ikke beregnet til bruk på steder der det er fare for eksplosjon.
- Dette verktøyet er ikke isolert mot elektriske støt.

MERK

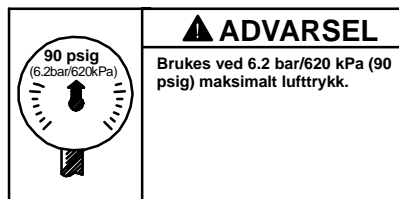
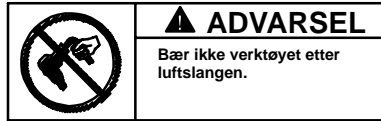
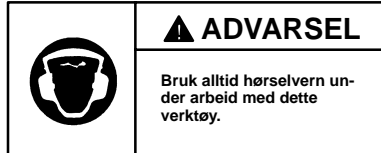
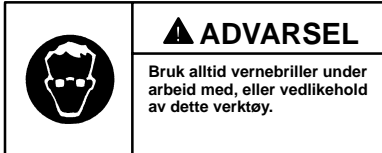
Bruk av andre deler enn originale Ingersoll-Rand reservedeler kan føre til sikkerhetsrisiko, redusert verktøyytelse og økt vedlikehold, og vil føre til at garantien blir ugyldig.

Reparasjoner bør bare utføres av autorisert personell. Konsulter nærmeste autoriserte Ingersoll-Rand servicesenter.

VARSELSYMBOLER

⚠ ADVARSEL

ALVORLIGE PERSONSKADER KAN OPPSTÅ HVIS IKKE FØLGENDE ADVARSLER BLIR TATT TIL FØLGE.



FØRSTEGANGSBRUK AV VERKTØY

SMØRING



Ingersoll–Rand nr. 50



Bruk Ingersoll–Rand nr. 115–1LB for rutinemessige eksterne smøringer av støtmekanismen gjennom hammerhusets smøreanordning.

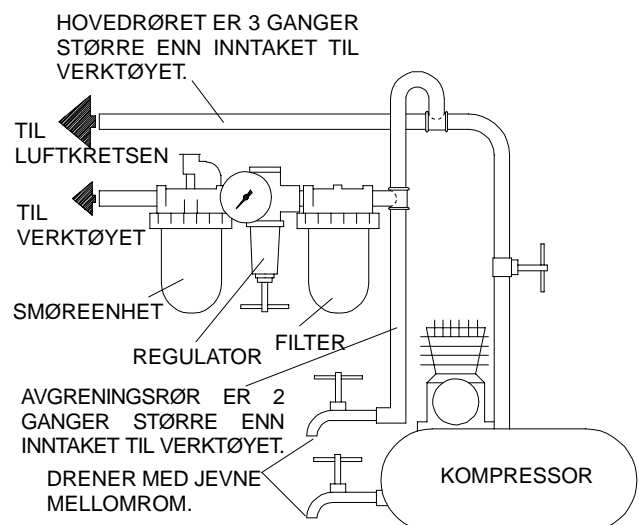
Bruk Ingersoll–Rand nr. 105–1LB eller Ingersoll–Rand 105–8LB når støtmekanismen demonteres og monteres.

Bruk alltid en smørepotte sammen med disse verktøyene. Vi anbefaler følgende filter–smøre–regulator enhet:

For USA – nr. C18–03–FKG0–28
Internasjonalt – C18–C3–FKG0

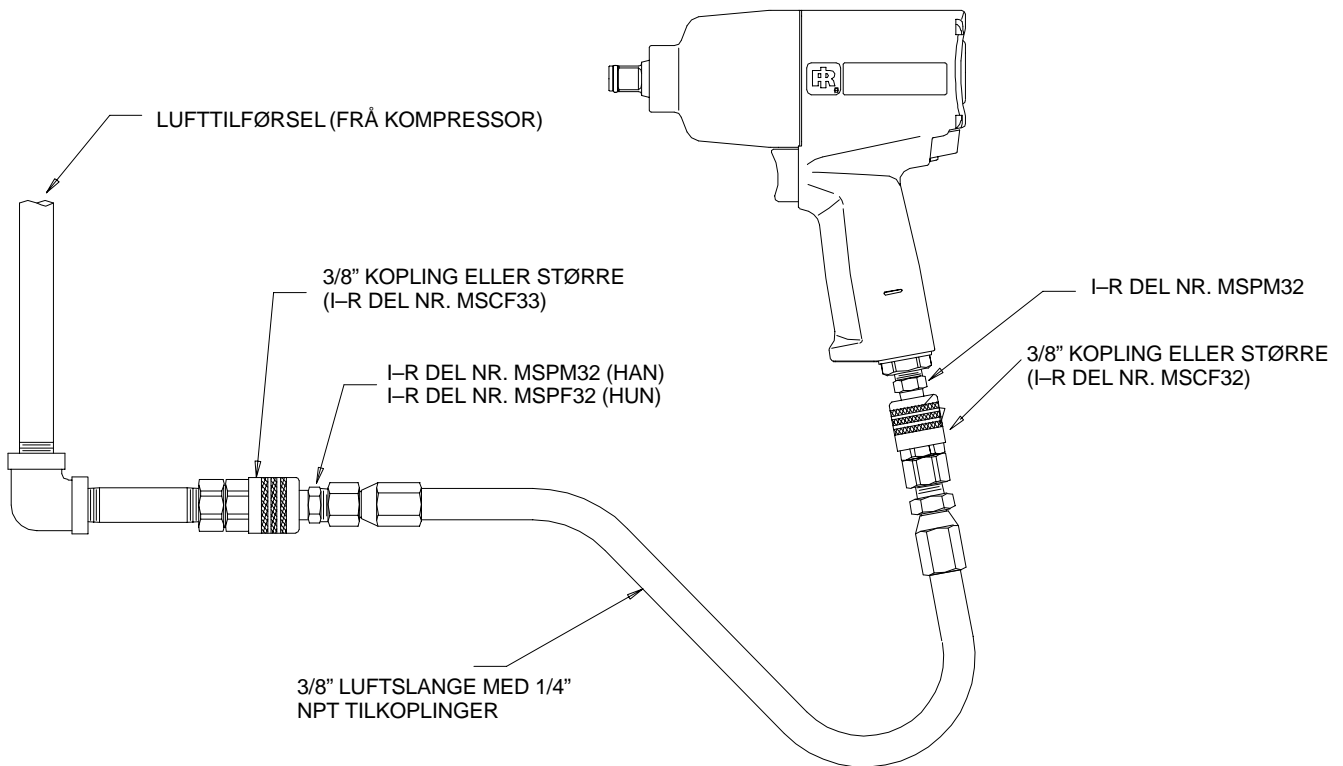
OBS

Sett ikke noe kundeidentifikasjoner på noen del av dette verktøyet som ikke er metall. Hvis det gjøres kan dette virke inn på ytelsen av verktøyet.



(Tegning TPD905–1)

FØRSTEGANGSBRUK AV VERKTØY



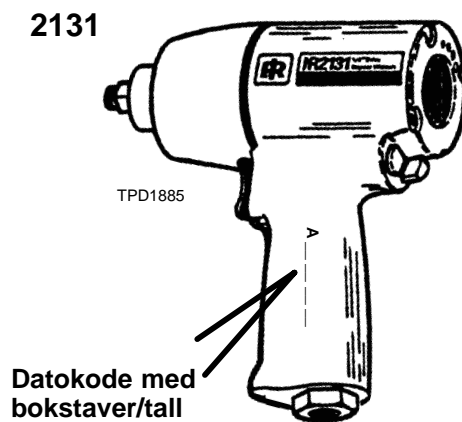
(Tegning TPD1674-2)

SPESIFIKASJONER

Modell	Type håndtak	Firkant tapp	Fri hastighet	Anbefalt momentområde		■ Lydnivå dB (A)		◆ Vibrasjonsnivå
				Forover ft-lb (Nm)	Revers ft-lb (Nm)	Trykk	Effekt	m/s ²
2131FRC-2	Pistol-grep	1/2" (2" forl)	1 250	*	550 (600 maks.) 746 (813 maks.)	95,5	108,5	5,7

* Styrkeregulatoren på modell 2131FRC-2 er fast innstilt og kan ikke justeres. Sjekk dreiemomentet med en momentnøkkel mens verktøyet arbeider under normale driftsforhold.

- Testet i henhold til PNEUROP PN8NTC1.2
- ◆ Testet i henhold til ISO8662-1



KONFORMITETSERKLÆRING

Vi Ingersoll-Rand, Co.
(leverandørens navn)

78192 Trappes Cedex France
(adresse)

erklærer på ære og samvittighet at produktet,

Modell 2131FRC-2 Kraftig Muttertrekkere

som denne erklæringen gjelder for, oppfyller bestemmelsene i
98/37/CE direktivene.

ved å bruke følgende prinsipielle standarder: ISO8662, PNEUROP PN8NTC1

Serienr.: (1999 →) A99M XXXXX →


D. Vose
Navn og underskrift til autoriserte personer


Kevin R. Morey
Navn og underskrift til autoriserte personer

Desember, 1999
Dato

Desember, 1999
Dato

MERK

OPPBEVAR DISSE INSTRUKSJONENE. ØDELEGG DEM IKKE.

Når verktøyet ikke lenger er brukbart, anbefales det at verktøyet blir demontert, rengjort for olje og sortert etter materialer i gjenvinningsøyemed.

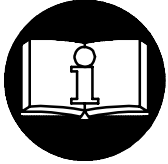
ERITTÄIN SUURITEHOINEN AUTOALAN MUTTERINVÄÄNNIN MALLIT 2131FRC-2 KÄYTTÖOHJEET

HUOMAA

Nämä mutterinvääntimet, mallit 2131FRC-2 on tarkoitettu sekä yleisiin töihin autokorjaamoissa että rengashuoltoon.

Ingersoll-Rand ei ole vastuussa työkalujen mahdollisista modifikaatioista muihin sovelluksiin, joista Ingersoll-Randille ei ole tiedoitettu.

VAROITUS



**OHJEISSA ON MUKANA TÄRKEITÄ TURVAOHJEITA.
LUE TÄMÄ OHJEKIRJA ENNENKUIN ALAT KÄYTTÄÄ TYÖKALUJA.
TYÖNANTAJAN VELVOLLISUUS ON SAATTAA TÄMÄ
OHJEKIRJA TYÖNTEKIJÖIDEN TIETOOIN.**

SEURAAVIEN VAROITUSTEN LAIMINLYÖMINEN SAATTAA JOHTAA VAMMAUTUMISEEN.

TYÖKALUJEN KÄYTTÖNOTTO

- Käytä, tarkasta ja huolla tätä työkalua aina kaikkien käsikäyttöisiin ilmanpaineella toimiviin työkaluihin liittyvien säännösten mukaisesti (Työturvallisuuslaitoksen määräykset yms.)
- Käytä työkalua enintään 6,2 barin työpaineella ja liitä se 10 mm (3/8") paineilmaletkuun, jotta työkalu toimisi mahdollisimman tehokkaasti, turvallisesti ja pitkäikäisesti.
- Kytke paineilma aina pois päältä ja irroita paineilmaletku ennen kuin asennat, poistat tai säädät mitään tämän työkalun lisälaitetta tai ennen kuin alat huoltaa työkalua.
- Älä käytä vahingoittuneita, hankautuneita tai kuluneita paineilmaletkuja tai -liittimiä.
- Varmistu, että kaikki paineilmaletkut ja -liittimet ovat oikeaa kokoa ja ne ovat tiiviisti kiinni. Katso kuvasta TPD905-1 kaaviota tavanomaisesta paineilmakytkenästä.
- Käytä aina puhdasta, kuivaa paineilmaa, jonka paine on enintään 6,2 bar. Pöly, ruostehöyryt ja/tai liika kosteus saattavat vahingoittaa työkalun paineilmamootoria.
- Älä voitele työkalua tulenaroilla tai helposti haihtuvilla nesteillä, kuten dieselöljyllä, kerosiinilla tai Jet-A-polttoaineella.
- Älä poista mitään työkalussa olevia tarroja. Vaihda vahingoittuneet tarrat.
- Suosittelemme käyttöön letkun tukilaitetta, joka estää letkua kiertymästä mutkalle. Suoraan ilman sisääntuloaukkoon kytketty liitin lisää työkalun massaa ja vaikeuttaa työkalun käsittelyä.
- Mahdollisimman tehokkaan toiminnan varmistamiseksi seinään kiinnitetyn liittimen pitää olla kooltaan yhtä kokoa suurempi kuin työkaluun kytketyn liittimen. Työkalua lähimmäksi kytketty liitin ei saa olla kooltaan asianmukaista ilmansyöttöletkua pienempi.

TYÖKALUN KÄYTTÖ

- Käytä aina suojalaseja työkalua käyttäessäsi tai huoltaessasi.
- Käytä aina kuulosuojaimia työkalua käyttäessäsi.
- Pidä kädet, irtonainen vaatetus ja hiukset loitolla työkalun pyörivästä päästä.
- Pistä merkille suunnanvaihtokytkimen asento ennen kuin käytät käynnistysvipua jotta voit ennakoita kumpaan suuntaan työkalu alkaa pyöriä.
- Ennakoi ja varo työkalun käynnistyksen ja käytön aikana työkalun liikkeiden ja voimien äkkinäisiä muutoksia.
- Seiso tukevassa asennossa hyvässä tasapainossa. Älä kurkota käyttäessäsi työkalua. Työkaluun saattaa yllättäen tulla voimakkaita vääntöliikkeitä sekä suositellulla ilmanpaineella että sitä pienemmällä paineella toimittaessa.
- Työkalun akseli saattaa pyöriä vielä hetken aikaa käynnistysvivusta irtipäästämisen jälkeenkin.
- Paineilmatyökalut voivat tärinästä toimissaan. Tärinä, toistuvat liikesarjat tai epämiellyttävät asennot saattavat olla vahingollisia käsillesi ja käsivarsillesi. Lopeta työkalun käyttö, jos alat tuntea kihelmöintiä ja kipua. Käänny lääkärin puoleen ennen kuin jatkat työkalun käyttöä.
- Käytä Ingersoll-Randin suosittelemia lisälaitteita.
- Käytä ainoastaan iskutyökaluihin tarkoitettuja hylsyjä ja lisäosia. Älä käytä käsityökaluihin tarkoitettuja (kromattuja) hylsyjä ja lisäosia.
- Iskutyökalut eivät ole momenttityökaluja. Liitokset, jotka vaativat tiettyä kirstystävääntömomenttia tulee tarkastaa momenttiavaimella iskutyökalulla tehdyn esikiristyksen jälkeen.
- Tämä työkalu ei ole suunniteltu käytettäväksi räjähdysalttiissa ympäristöissä.
- Tämä työkalu ei ole eristetty sähköiskujen varalta.

HUOMAA

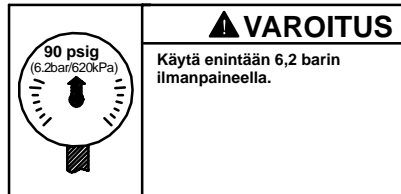
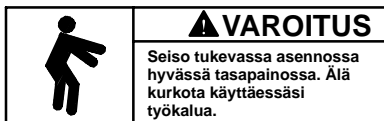
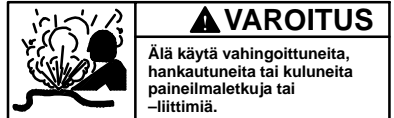
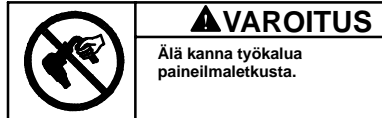
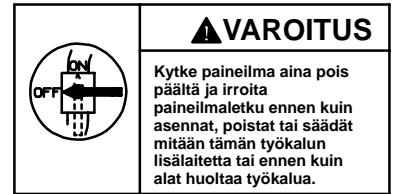
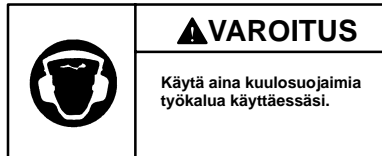
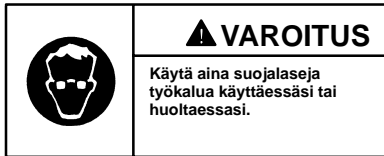
Muiden kuin Ingersoll-Randin alkuperäisvaraosien käyttö saattaa johtaa vaaratilanteisiin, heikentyneisiin työkalun suoritusarvoihin, kasvavaan huollontarpeeseen ja se saattaa mitätöidä kaikki takuut.

Ainostaan valtuutetun, koulutetun henkilöstön tulisi korjata työkalua. Lisätietoja saat lähimmästä Ingersoll-Randin merkkihuoltokeskuksesta.

VAROITUSTARROJEN TULKINTAOHJEITA

VAROITUS

SEURAAVIEN VAROITUSTEN LAIMINLYÖMINEN SAATTAA JOHTAA VAMMAUTUMISEEN.



TYÖKALUN KÄYTTÖÖNOTTO

VOITELU



Ingersoll-Rand nro. 50



Ingersoll-Rand nro. 115-1LB on tarkoitettu iskumekanismin ulkopuoliseen voiteluun työkalun rungossa olevan voitelunipan kautta.

Käytä iskumekanismin purkamiseen ja kokoamiseen Ingersoll-Rand nro. 105-1LB tai Ingersoll-Rand nro. 105-8LB -tuotteita.

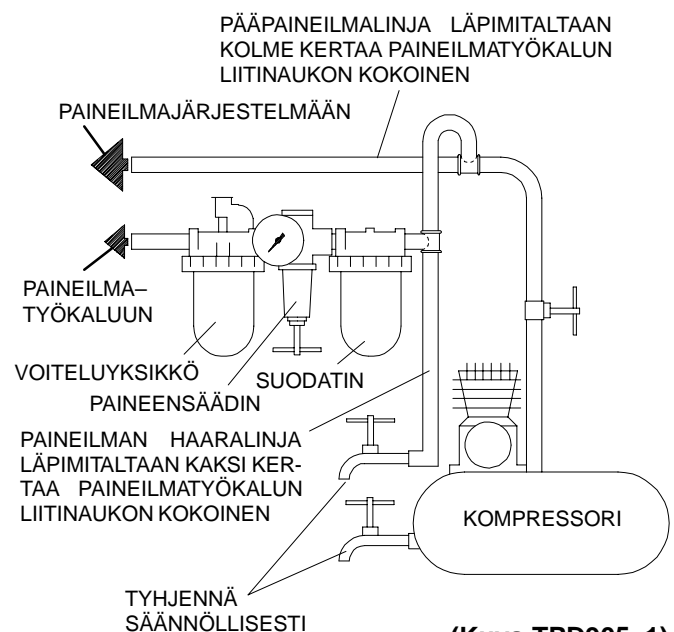
Käytä aina paineilma-voitelua työkalujen yhteydessä. Suosittelemme seuraavaa suodatin-voitelu-paineensäätö-yhdistelmälaitetta:

Käytössä Amerikan Yhdysvalloissa – nro. C18-03-FKG0-28

Kansainvälisessä käytössä – nro. C18-C3-FKG0

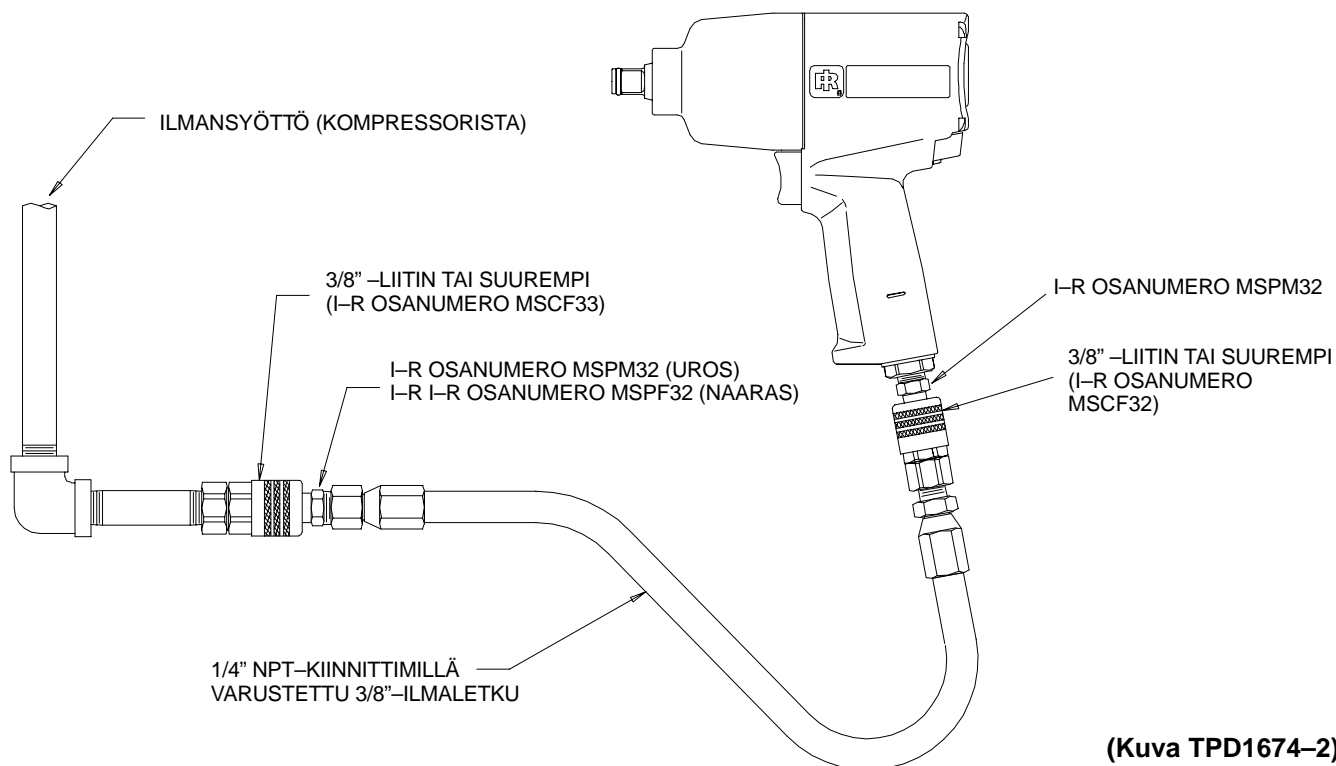
VAROITUS

Älä tee mihinkään tämän työkalun epämetallisista materiaaleista valmistettuun pintaan merkintöjä (esim. syövytetyt tai kaiverretut asiakastunnukset). Tällaisilla merkinnöillä saattaa olla vaikutus työkalun suoritusarvoihin.



(Kuva TPD905-1)

TYÖKALUN KÄYTTÖNOTTO



(Kuva TPD1674-2)

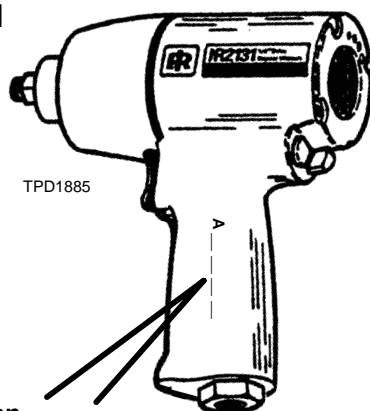
ERITTELY

Malli	Kädensija- tyyppi	Vääntö	Iskuja/ minuutti	Suositeltu vääntömomenttialue		■ Äänivoimak- kuustaso dB (A)		◆ Värinä
				Eteenpäin ft-lb (Nm)	Taaksepäin ft-lb (Nm)	Paine	Teho	m/s ²
2131FRC-2	Pistooli	1/2" neliö ja pitkä alasin	1 250	*	550 (600 maks.) 746 (813 maks.)	95,5	108,5	5,7

* Mallin 2131FRC-2 virtaussäädin on kytketty kiinteästi yhteen asentoon ja sitä ei voida säätää. Tarkasta vääntövoiman suuruus momenttimittarilla, kun työkalu on toiminnassa normaaleissa työolosuhteissa.

- Testattu PNEUROP PN8NTC1.2:n vaatimusten mukaisesti
- ◆ Testattu ISO8662-1:n vaatimusten mukaisesti

2131



Kirjan-
numeropäiväystöodin
paikka

VAKUUTUS NORMIEN TÄYTTÄMISESTÄ

Me _____ *Ingersoll-Rand, Co.*

(toimittajan nimi)

_____ *78192 Trappes Cedex France*

(osoite)

vakuutamme ja kannamme yksin täyden vastuun siitä, että tuote

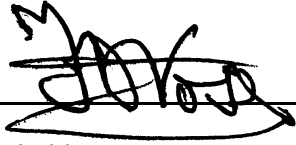
_____ *Erittäin suuritehoinen autoalan mutterinväännin mallit 2131FRC-2*

johon tämä vakuutus viittaa, täyttää direktiiveissä

_____ *98/37/EY*

esitetty vaatimukset seuraavia perusnormeja käytettäessä: *ISO8662, PNEUROP PN8NTCI*

Sarjanumerot: _____ *(1999 →) A99M XXXXX →*



D. Vose

Auktorisoidun henkilön nimi ja asema



Kevin R. Morey

Auktorisoidun henkilön nimi ja asema

_____ *Joulukuu, 1999*

Päiväys

_____ *Joulukuu, 1999*

Päiväys

HUOMAA

SÄÄSTÄ NÄMÄ OHJEET. ÄLÄ TUHOA NIITÄ.

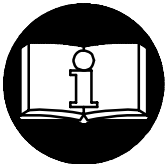
Kun tämä työkalun käyttöikä on loppunut, suosittelemme työkalun purkamista, puhdistusta rasvasta ja eri materiaalien erittelyä kierrätystä varten.

INSTRUÇÕES PARA CHAVES DE PERCUSSÃO PARA AUTOMÓVEIS PARA TRABALHO ULTRA PESADO MODELO 2131FRC-2

AVISO

As Chaves de Percussão Para Automóveis Modelo 2131FRC-2 são concebidas para utilização em reparações gerais de automóveis, manutenção de pneus e aplicações de trabalho pesado de frota de automóveis.

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 OBEDEIÊNCIA ÀS ADVERTÊNCIAS SEGUINTE PODERÁ RESULTAR EM
LESÕES PESSOAIS.**

COLOCAÇÃO DA FERRAMENTA EM SERVIÇO

- Opere, inspecione e faça manutenção nesta ferramenta sempre de acordo com todos os regulamentos (locais, estatais, federais e nacionais) que possam ser aplicáveis a ferramentas pneumáticas de mão/funcionamento manual.
- 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 3/8 pol. (10 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.
- Recomenda-se utilizar um reforço de mangueira. Um acoplador ligado directamente à admissão do ar aumenta o volume da ferramenta e diminui a capacidade de manobra da mesma.
- Sempre opere esta ferramenta com uma mangueira de alimentação de ar com diâmetro interno de 3/8 pol. (10 mm). Para obter o desempenho máximo, o acoplador na parede deve ser um tamanho maior do que o acoplador utilizado na ferramenta. O acoplador mais próximo à ferramenta não deve ser menor do que o tamanho correcto da mangueira de alimentação de ar.

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 formigueiro 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 dinâmométricas. 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 à 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.

© Ingersoll-Rand Company 1999

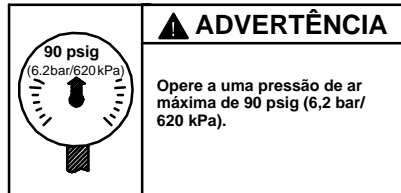
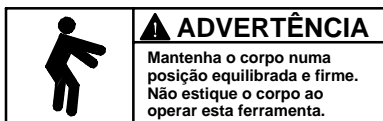
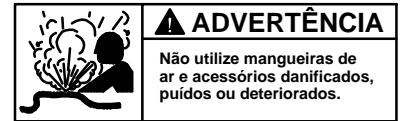
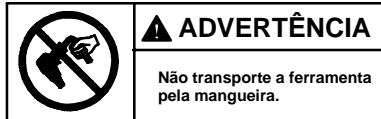
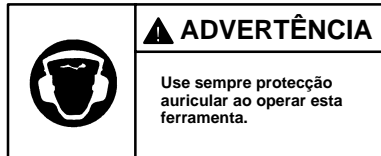
Impresso nos E.U.A.

INGERSOLL-RAND®
PROFESSIONAL TOOLS

IDENTIFICAÇÃO DAS ETIQUETAS DE ADVERTÊNCIA

⚠ ADVERTÊNCIA

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



COLOCAÇÃO DA FERRAMENTA EM SERVIÇO

LUBRIFICAÇÃO



Ingersoll-Rand Nº 50



Ingersoll-Rand Nº 115-1LB para lubrificação externa rotineira do mecanismo de percussão através do Copo de Massa da Caixa do Martelo.

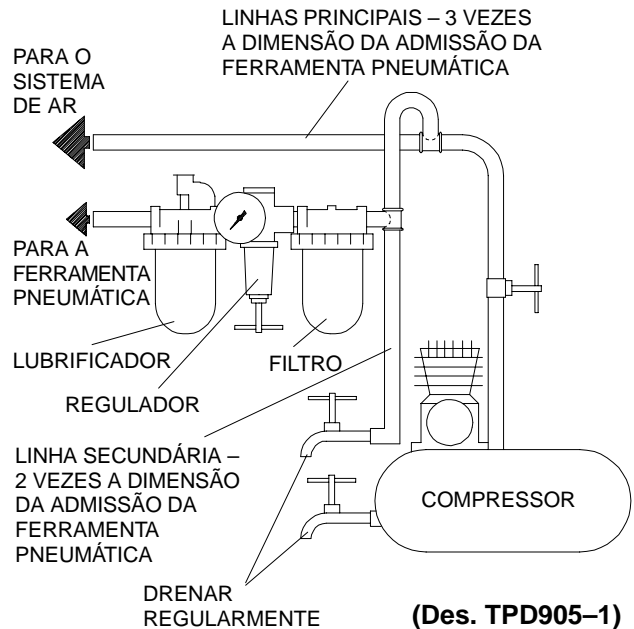
Ingersoll-Rand Nº 105-1LB ou **Ingersoll-Rand Nº 105-8LB** ao desmontar e montar o mecanismo de percussão.

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

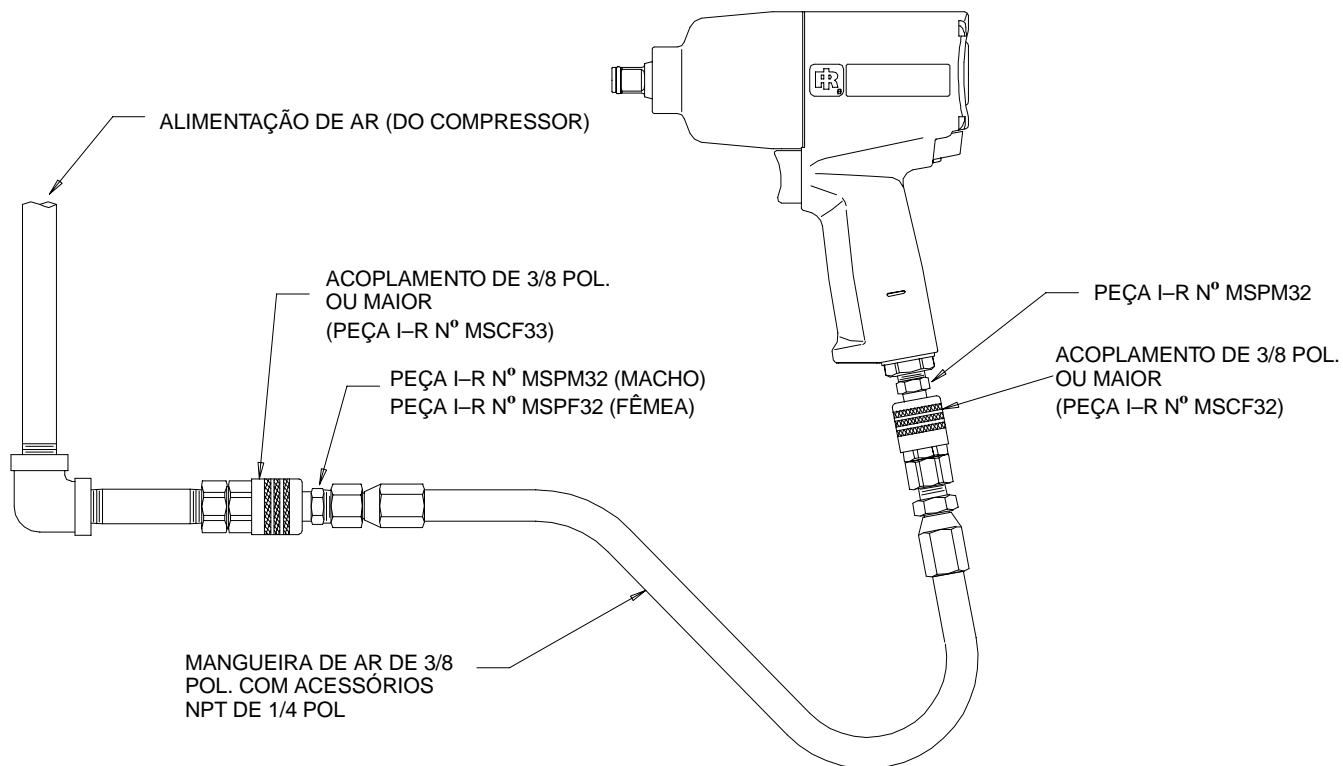
Para EUA – Nº. C18-03-FKG0-28
Para Internacional – Nº. C18-C3-FKG0

CUIDADO

Não marque nenhuma superfície não metálica desta ferramenta com códigos de identificação do cliente. Isto poderia afectar o desempenho da ferramenta.



COLOCAÇÃO DA FERRAMENTA EM SERVIÇO



(Des. TPD1674-2)

ESPECIFICAÇÕES

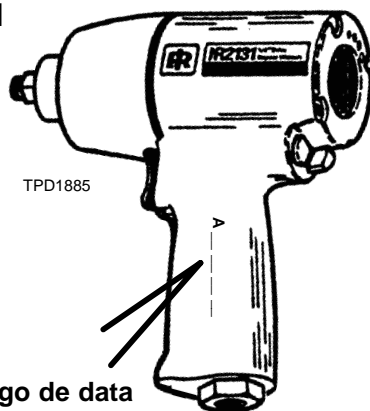
Modelo	Tipo de Pega	Accionamento	Impactos por min.	Gama de Binário Recomendada		Nível de Som dB (A)		Nível de Vibrações m/s ²
				Dir. de Avanço ft-lb (Nm)	Dir. Inversa ft-lb (Nm)	Pressão	Potência	
2131FRC-2	pistola	1/2 pol (2 pol. ext.)	1.250	*	550 (Máx. 600)	95,5	108,5	5,7

* O Regulador de Potência do Modelo 2131FRC-2 é fixo numa posição e não pode ser ajustado. Verifique o valor de binário com um dinamómetro quando a ferramenta estiver a operar em condições normais de oficina.

▪ Testada de acordo com PNEUROP PN8NTC1.2

♦ Testada de acordo com ISO8662-1

2131



O código de data com letras/números

ΟΔΗΓΙΕΣ ΓΙΑ ΜΟΝΤΕΛΑ 2131FRC–2 ΑΕΡΟΚΛΕΙΔΑ ΥΠΕΡΙΣΧΥΡΑ ΓΙΑ ΕΡΓΑΣΙΕΣ ΕΠΙ ΤΡΟΧΟΦΟΡΩΝ

ΠΡΟΣΟΧΗ

Τα μοντέλα 2131FRC–2 Αερόκλειδα σχεδιάστηκαν για χρήση σε γενικές επισκευές τροχοφόρων, συντήρηση τροχών και σε εφαρμογές επί στόλων τροχοφόρων.

Η Ingersoll–Rand δεν ευθύνεται για μετατροπές των εργαλείων από τον πελάτη, για εφαρμογές για τις οποίες δεν συμβουλευθήκαν την Ingersoll–Rand.



▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ

**ΣΗΜΑΝΤΙΚΕΣ ΠΛΗΡΟΦΟΡΙΕΣ ΠΕΡΙΕΧΟΝΤΑΙ ΣΤΟ ΕΓΧΕΙΡΙΔΙΟ
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ΑΥΤΟΥ ΤΟΥ ΕΓΧΕΙΡΙΔΙΟΥ ΥΠ'ΟΨΗΝ ΤΟΥ ΧΕΙΡΙΣΤΗ.
Η ΠΑΡΑΛΕΙΨΗ ΤΗΡΗΣΗΣ ΤΩΝ ΑΚΟΛΟΥΘΩΝ ΠΡΟΕΙΔΟΠΟΙΗΣΕΩΝ
ΜΠΟΡΕΙ ΝΑ ΟΔΗΓΗΣΕΙ ΣΕ ΤΡΑΥΜΑΤΙΣΜΟ.**

ΘΕΣΗ ΕΡΓΑΛΕΙΟΥ ΣΕ ΛΕΙΤΟΥΡΓΙΑ

- Πάντοτε να χειρίζεστε, να επιθεωρείτε και να συντηρείτε το εργαλείο αυτό σύμφωνα με όλους τους κανονισμούς (τοπικούς, περιφερειακούς, κρατικούς) που προσδιορίζουν την κατάλληλη χρήση των εργαλείων αέρος χειρός.
- Για την ασφάλεια, υψηλή απόδοση και μέγιστη ανθεκτικότητα των διαφόρων εξαρτημάτων, λειτουργείτε το εργαλείο αυτό με μέγιστη πίεση αέρος 90 psig (6.2 bar/620 kPa) και με 3/8" (10 χιλ.) εσωτερική διάμετρο σωλήνος παροχής αέρος.
- Διακόπτετε πάντα την παροχή αέρος και αποσυνδέετε το σωλήνα παροχής αέρος πριν την τοποθέτηση, αφαίρεση ή ρύθμιση οποιουδήποτε εξαρτήματος σ' αυτό το εργαλείο, ή πριν την εκτέλεση οποιασδήποτε συντήρησης σ' αυτό το εργαλείο.
- Μη χρησιμοποιείτε σωλήνες και προσαρτήματα με ζημιά, ξεφτισμένα ή φθαρμένα.
- Βεβαιωθείτε ότι όλοι οι σωλήνες και τα προσαρτήματα έχουν το σωστό μέγεθος και είναι στερεά ασφαλισμένα. Βλέπετε σχ. TPD905-1 για μια τυπική διαδικασία σωλήνωσης.
- Χρησιμοποιείτε πάντοτε καθαρό, ξηρό αέρα μεγίστης πίεσεως 90 psig. Η σκόνη, οι διαβρωτικές αναθυμιάσεις και/ή η υπερβολική υγρασία μπορούν να καταστρέψουν τον αεροκινητήρα ενός εργαλείου αέρος.
- Μη λυπαίνετε τα εργαλεία με εύφλεκτα ή πτητικά υγρά όπως η κηροζίνη, το νήζελ ή καύσιμο τζετ.
- Μη αφαιρείτε οποιαδήποτε πινακίδες. Αντικαταστήστε οποιαδήποτε κατεστραμμένη πινακίδα.
- Η χρήση ενός επάρτου για τον σωλήνα συνιστάται. Ένας ζευκτήρας (κόπλερ) συνδεδεμένος κατ' ευθείαν στην εισαγωγή αέρος αυξάνει τον όγκο του εργαλείου και ελαττώνει την ευρηστία του.
- Πάντα λειτουργείτε το εργαλείο αυτό με 3/8" (10 χιλ.) εσωτερική διάμετρο σωλήνος παροχής αέρος. Για μέγιστη απόδοση, ο ζευκτήρας (κόπλερ) στον τοίχο θα πρέπει να είναι ένα μέγεθος μεγαλύτερος από τον ζευκτήρα (κόπλερ) που χρησιμοποιείται στο εργαλείο. Ο ζευκτήρας κοντήτερα στο εργαλείο δεν θα πρέπει να είναι μικρότερος από το κατάλληλο μέγεθος του σωλήνα παροχής αέρα.

ΧΡΗΣΙΜΟΠΟΙΗΣΗ ΤΟΥ ΕΡΓΑΛΕΙΟΥ

- Φοράτε πάντα προστατευτικά των ματιών όταν λειτουργείτε ή εκτελείτε συντήρηση αυτού του εργαλείου.
- Φοράτε πάντα προστατευτικά ακοής όταν λειτουργείτε αυτό το εργαλείο.
- Κρατάτε τα χέρια σας, χαλαρά ενδύματα και μακρυνά μαλλιά σε απόσταση από την άκρη περιστροφής του εργαλείου.
- Σημειώστε την θέση του μοχλού αναστροφής πριν χειριστείτε το εργαλείο έτσι ώστε να είστε ενήμεροι της φοράς περιστροφής όταν χρησιμοποιείτε το χειριστήριο.
- Προβλέψτε και να είστε έτοιμοι για τις ξαφνικές αλλαγές στην κίνηση κατά το ξεκίνημα και τη λειτουργία κάθε μηχανοκίνητου εργαλείου.
- Διατηρείτε το σώμα σας σε στάση ισορροπίας και σταθερά. Μην υπερβαίνετε τη θέση ισορροπίας όταν λειτουργείτε αυτό το εργαλείο. Υψηλές ροπές στρέψεως μπορεί να συμβούν στις συνιστώμενες πιέσεις λειτουργίας ή και σε χαμηλότερες.
- Το εξάρτημα του εργαλείου ενδέχεται να συνεχίσει τις περιστροφές για λίγο μετά την αποδέσμευση της δικλίδας αέρος.
- Όλα τα μηχανοκίνητα εργαλεία αέρος δυνατόν να δονούνται κατά τη χρήση τους. Κραδασμοί, επαναλαμβανόμενες κινήσεις και άβολες θέσεις δυνατόν να προκαλέσουν βλάβη στα χέρια και στους βραχίονες σας. Σταματήστε τη χρήση κάθε εργαλείου αν αισθανθείτε στενοχώρια, σουβλιές ή πόνο. Ζητήστε ιατρική συμβουλή πριν επαναλάβετε τη χρήση.
- Χρησιμοποιείτε εξαρτήματα που συνιστά η Ingersoll–Rand.
- Χρησιμοποιείτε μόνο υποδοχείς και εξαρτήματα κρούσεως. Μη χρησιμοποιείτε υποδοχείς και εξαρτήματα χειρός (χρωμίου).
- Τα αερόκλειδα δεν είναι κλειδές ροπής. Συνδέσεις που απαιτούν ειδικές ροπές πρέπει να ελέγχονται με εργαλείο μέτρησης ροπής μετά την εφαρμογή τους με ένα αερόκλειδο.
- Το εργαλείο αυτό δεν είναι σχεδιασμένο να λειτουργεί σε εκρηκτικές ατμόσφαιρες.
- Το εργαλείο αυτό δεν είναι μονωμένο έναντι ηλεκτρικού σοκ.


ΠΡΟΣΟΧΗ


Η χρήση άλλων εκτός των αυθεντικών ανταλλακτικών της Ingersoll–Rand μπορεί να οδηγήσει σε κίνδυνο για την ασφάλεια, να επιφέρει μείωση της απόδοσης του εργαλείου και επαύξηση της συντήρησης και ενδέχεται να ακυρώσει όλες τις εγγυήσεις. Οι επισκευές πρέπει να γίνονται μόνο από εξουσιοδοτημένο εκπαιδευμένο προσωπικό. Συμβουλευτείτε το πλησιέστερο σας Εξουσιοδοτημένο Κέντρο Εξυπηρέτησης (Servicenter) της Ingersoll–Rand.


ΑΝΑΓΝΩΡΗΣΗ ΠΡΟΕΙΔΟΠΟΙΗΤΙΚΩΝ ΠΙΝΑΚΙΔΩΝ


▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ


Η ΠΑΡΑΛΕΙΨΗ ΤΗΡΗΣΗΣ ΤΩΝ ΑΚΟΛΟΥΘΩΝ ΠΡΟΕΙΔΟΠΟΙΗΣΕΩΝ ΜΠΟΡΕΙ ΝΑ ΟΔΗΓΗΣΕΙ ΣΕ ΤΡΑΥΜΑΤΙΣΜΟ.


	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Φοράτε πάντα προστατευτικά ματιών όταν λειτουργείτε ή εκτελείτε συντήρηση αυτού του εργαλείου.
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	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Φοράτε πάντα προστατευτικά ακούης όταν λειτουργείτε αυτό το εργαλείο.
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	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Διακόπτετε πάντα την παροχή αέρος και αποσυνδέετε το σωλήνα παροχής αέρος πριν την τοποθέτηση, αφαίρεση ή ρύθμιση οποιουδήποτε εξαρτήματος σ' αυτό το εργαλείο, ή πριν την εκτέλεση οποιασδήποτε συντήρησης σ' αυτό το εργαλείο.
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	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Όλα τα μηχανοκίνητα εργαλεία δυνατόν να κραδάζονται κατά τη χρήση τους. Κραδασμοί, επαναλαμβανόμενες κινήσεις και άβολες θέσεις δυνατόν να προκαλέσουν βλάβη στα χέρια και στους βραχίονες σας. Σταματήστε τη χρήση κάθε εργαλείου αν αισθανθήτε στεναχωρία, σουβλιές ή πόνο. Ζητήστε ιατρική συμβουλή πριν επαναλάβετε τη χρήση.
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	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Μη μεταφέρετε το εργαλείο κρατώντας το από το σωλήνα.
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	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Μη χρησιμοποιείτε κατεστραμμένους, λειωμένους ή φθαρμένους σωλήνες και προσαρτήματα.
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	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Διατηρείτε το σώμα σας σε στάση ισορροπίας και σταθερό. Μην υπερβείτε τη θέση ισορροπίας όταν λειτουργείτε αυτό το εργαλείο.
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	▲ ΠΡΟΕΙΔΟΠΟΙΗΣΗ Λειτουργείτε με Μέγιστη πίεση αέρος 90 psig (6,2 bar/620 kPa).
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ΘΕΣΗ ΕΡΓΑΛΕΙΟΥ ΣΕ ΛΕΙΤΟΥΡΓΙΑ

ΛΙΠΑΝΣΗ



Ingersoll-Rand No. 50



Ingersoll-Rand No. 115-1LB για συνηθισμένη (ρουτίνα) εξωτερική λίπανση του μηχανισμού κρούσης δια μέσου του Γρασσαδόρου στο Περιβλήμα της Σφύρας.

Χρησιμοποιείτε **Ingersoll-Rand No. 105-1LB** ή **Ingersoll-Rand 105-8LB** όταν αποσυναρμολογείτε και συναρμολογείτε τον μηχανισμό κρούσης.

Χρησιμοποιείτε πάντα ένα λιπαντήρα γραμμής αέρος με αυτά τα εργαλεία. Εμείς συνιστούμε την ακόλουθη Μονάδα Φίλτρου-Λιπαντήρα-Ρυθμιστή:

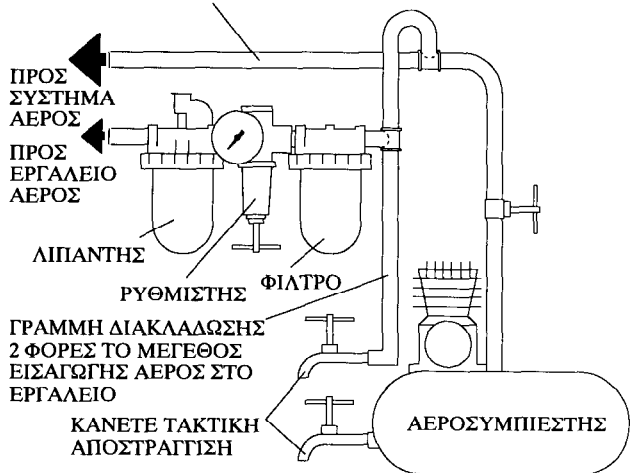
Για τις ΗΠΑ – No. C18-03-FKG0-28

Για Διεθνή – No. C18-C3-FKG0

ΣΗΜΕΙΩΣΗ

Μη μαρκάρετε οποιαδήποτε μη μεταλλική επιφάνεια αυτού του εργαλείου με κωδικούς αναγνώρισης του πελάτη. Τέτοιες ενέργειες μπορεί να βλάψουν την απόδοση του εργαλείου..

ΚΥΡΙΕΣ ΓΡΑΜΜΕΣ 3 ΦΟΡΕΣ ΤΟ ΜΕΓΕΘΟΣ ΤΗΣ ΕΙΣΑΓΩΓΗΣ ΑΕΡΟΣ ΣΤΟ ΕΡΓΑΛΕΙΟ



(Σχ. TPD905-1)

ΔΗΛΩΣΗ ΕΓΚΥΡΟΤΗΤΑΣ

Εμείς Ingersoll-Rand, Co.
(όνομα κατασκευαστή)

78192 Trappes Cedex France

(διεύθυνση)

δηλώνουμε με τη δική μας ευθύνη ότι τα παρακάτω κατασκευάσματα,

Μοντέλα 2131FRC-2

Αερόκλειδα Υπερισχυρά Για Εργασίες Επί Τροχοφόρων

με τα οποία σχετίζεται αυτή η δήλωση συμβιβάζονται με τις παρακάτω συστάσεις

98/37/ΕΚ

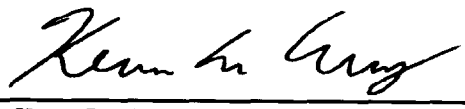
και διευκρινήσεις.

Δια χρησιμοποίησεως των επόμενων Τυπικών Αρχών: IS08662, PNEUROP PN8NTCI

Περίοδος Αριθμού Σειράς (1999 →) A99M XXXXX →


D. Vose

Όνομα και υπογραφή εξουσιοδοτημένων προσώπων


Kevin R. Morey

Όνομα και υπογραφή εξουσιοδοτημένων προσώπων

Δεκέμβριος, 1999

Ημερομηνία

Δεκέμβριος, 1999

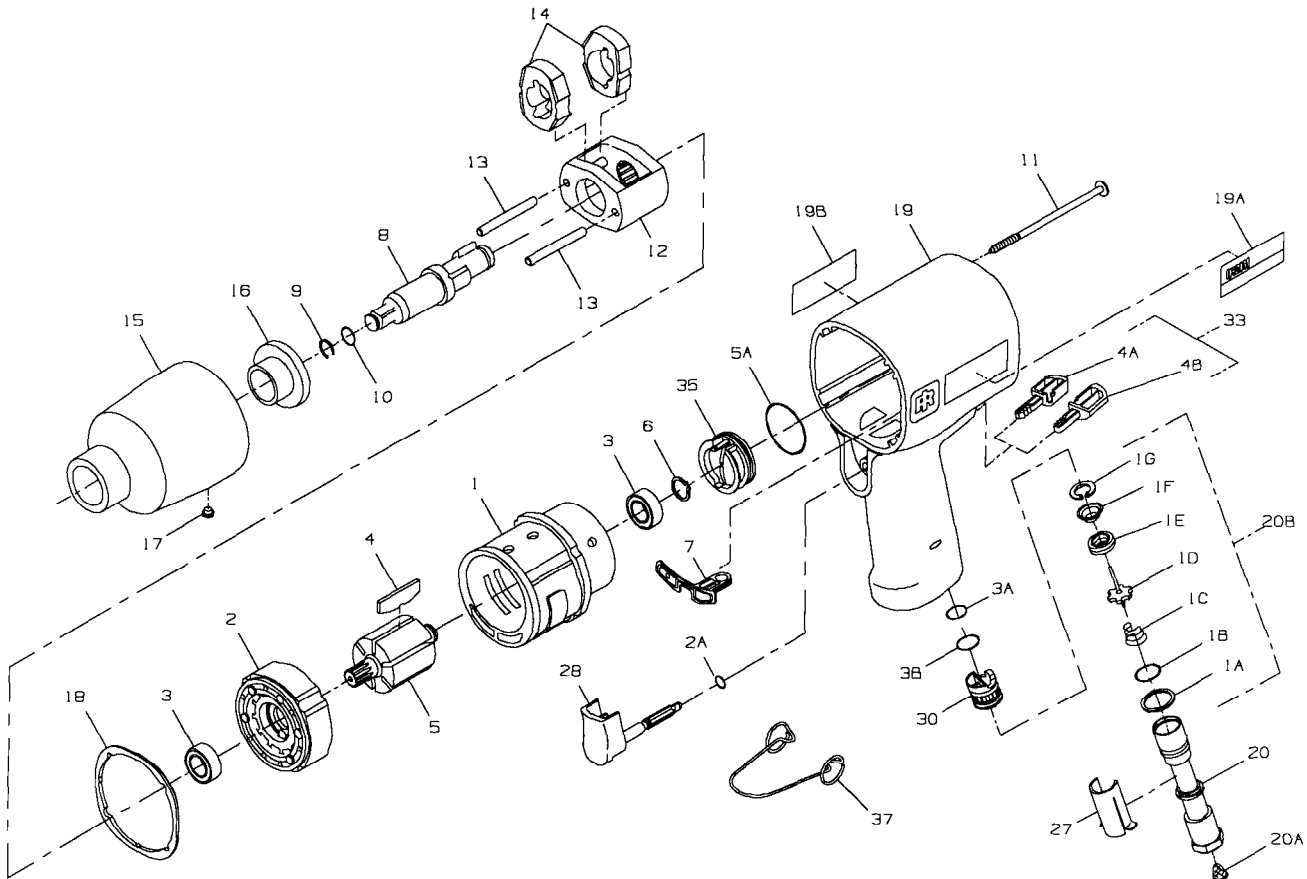
Ημερομηνία

ΠΡΟΣΟΧΗ

ΦΥΛΑΞΤΕ ΑΥΤΕΣ ΤΙΣ ΟΔΗΓΙΕΣ. ΜΗΝ ΤΙΣ ΚΑΤΑΣΤΡΕΨΕΤΕ.

Όταν η προβλεπόμενη περίοδος κανονικής ζωής του εργαλείου έχει λήξει, συνιστάται η αποσυναρμολόγηση του εργαλείου, η απολίπανση και ο διαχωρισμός των ανταλλακτικών κατά υλικό για να μπορέσουν να ανακυκλωθούν.

**VEDLIGEHOELSESVEJLEDNING
SKÖTSELRÅD
VEDLIKEHOLDSINSTRUKSJONER
HUOLTO-OHJEET
INSTRUÇÕES DE MANUTENÇÃO
ΟΔΗΓΙΕΣ ΣΥΝΤΗΡΗΣΕΩΣ**



(TPA1452-1)



BESTILLINGSNUMMER
BESTÄLLNINGSNUMMER
BESTILLINGSNUMMER
OSANUMERO TILAUSTA VARTEN
NÚMERO DA PEÇA PARA ENCOMENDAS
ΑΡΙΘΜΟΙ ΠΑΡΑΓΓΕΛΙΑΣ ΕΞΑΡΤΗΜΑΤΩΝ

1	Cylinder	2131FRC-3	◆	20B	Inlet Parts Kit	2131-K303	
2	Front End Plate	2131-11	#	1A	Washer	----	
◆	3	Rotor Bearing (2)	◆◆	1B	Inlet Bushing Seal	----	
◆◆	4	Vane Packet (set of 6 Vanes) (yellow)	◆◆◆	1C	Tilt Valve Spring	----	
◆◆◆	5	Rotor	◆◆◆◆	1D	Tilt Valve	----	
◆◆◆◆	6	Rear Rotor Bearing Retainer	◆◆◆◆◆	1E	Tilt Valve Seat	----	
◆◆◆◆◆	7	Motor Gasket	◆◆◆◆◆◆	1F	Tilt Valve Seat	----	
◆◆◆◆◆◆	8	Anvil Assembly (1/2" square drive) (2" extended length)	◆◆◆◆◆◆◆	1G	Tilt Valve Seat	----	
◆◆◆◆◆◆◆	9	Socket Retainer	◆◆◆◆◆◆◆◆	Retainer	----		
◆◆◆◆◆◆◆◆	10	Socket Retainer O-ring	◆◆◆◆◆◆◆◆◆	27	Inlet Retainer Clip	2131-57	
◆◆◆◆◆◆◆◆◆	11	Hammer Case Screw (4)	◆◆◆◆◆◆◆◆◆◆	•	28	Trigger Assembly	2131-A93
◆◆◆◆◆◆◆◆◆◆	12	Hammer Frame Assembly	◆◆◆◆◆◆◆◆◆◆◆	#◆	2A	Trigger O-ring	----
◆◆◆◆◆◆◆◆◆◆◆	13	Hammer Frame	◆◆◆◆◆◆◆◆◆◆◆◆	#◆	30	Reverse Valve Assembly	2131-A329
◆◆◆◆◆◆◆◆◆◆◆◆	14	Hammer (2)	◆◆◆◆◆◆◆◆◆◆◆◆◆	#◆	3A	Reverse Valve O-ring (top)	----
◆◆◆◆◆◆◆◆◆◆◆◆◆	15	Hammer Case Assembly	◆◆◆◆◆◆◆◆◆◆◆◆◆◆	#◆	3B	Reverse Valve O-ring (bottom)	----
◆◆◆◆◆◆◆◆◆◆◆◆◆◆	16	Hammer Case Bushing	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	#◆	3B	Reverse Valve O-ring (blue)	----
◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	17	Hammer Case Grease Fitting	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	33	Button Kit	2131-K75	
◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	18	Hammer Case Gasket	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	4A	Forward Button	----	
◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	19	Housing Assembly	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	4B	Reverse Button	----	
◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	19A	Nameplate	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	35	Power Management Assembly	2131-A249	
◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	19B	Housing Label	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	#◆	5A	Power Management Dial Seal	----
◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	20	Inlet Bushing	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	37	Inlet Clip Removal Tool	2131-322	
◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	20A	Inlet Bushing Screen	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆				

◆ Indicates Tune-up Kit part.

+ Indicates Hammer Kit part.

Indicates Seal 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.

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* Grease (1 lb) (for external lubrication of the impact mechanism)	115-1LB	* Seal Kit (includes illustrated items 1B, 2A, 3A, 3B, 5A, 7 and 18)	2131-K36
* Grease (for lubrication when disassembling and assembling the impact mechanism)		* Tune-up Kit (includes items 2A, 3A, 3B, 5A, 3 [2], 4 [6], 6, 7, 9, 10, 18 20A and 20B)	2131-TK2
1 lb	105-1LB	* Hammer Kit (for 2131-2)	
8 lb	105-8LB	(includes illustrated items 11 [4], 14 [2], 18 and Anvil Assembly part number	
* Protective Cover	2131-P32	2131-A414-2)	2131-THK1-2
* Grease Gun	R000A2-228		

* Not illustrated.