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# SALES AND ENGINEERING DATA

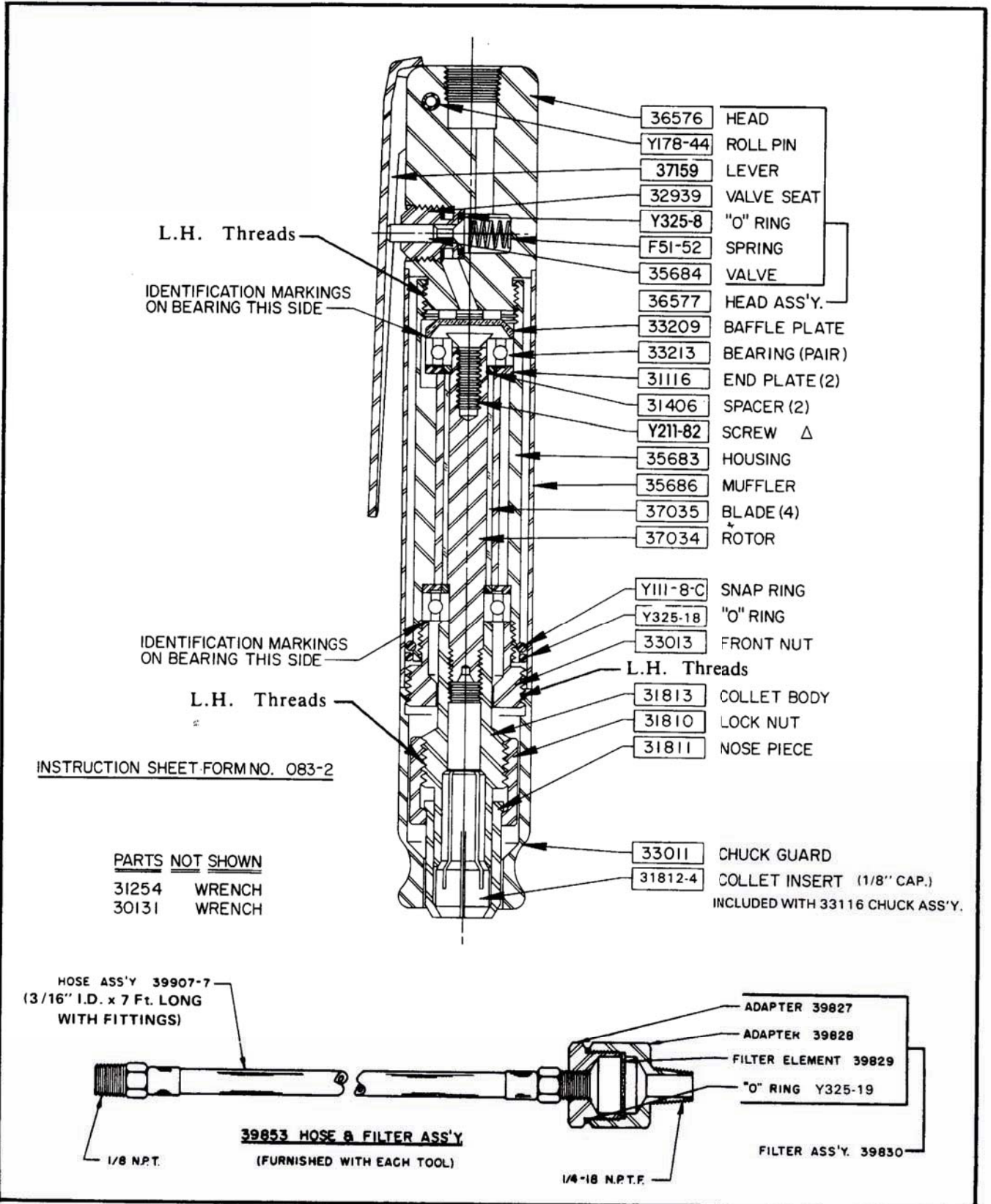
MODEL 7114-E  
 GRINDER

LEVER THROTTLE

20,000 R.P.M.

SECTION **10-7**  
 PAGE NO. **3A**  
 DATE **1-2010**

FORM 085-2



Ingersoll Rand Company

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# ARO

**IR** Ingersoll Rand  
 Industrial Technologies

## OPERATING PRECAUTIONS

**WARNING:** Repeated prolonged operator exposure to vibrations which may be generated in the use of certain hand-held tools may produce Raynaud's phenomenon, commonly referred to as Whitefinger disease. The phenomenon produces numbness and burning sensations in the hand and may cause circulation and nerve damage as well as tissue necrosis. Repetitive users of hand-held tools who experience vibrations should closely monitor duration of use and their physical condition.

## AIR AND LUBE REQUIREMENTS

AIR PRESSURE OF 90 p.s.i.g. (6 bar) at the air inlet of the tool is required for maximum motor efficiency. If necessary, an air regulator should be installed to maintain this pressure when tool is in operation.

FILTERED AND OILED AIR will allow the tool to operate more efficiently and yield a longer life to operating parts and mechanisms. A line filter capable of filtering particles larger than 50 microns should be used with a line oiler.

FILTER-REGULATOR-LUBRICATOR (F-R-L) assembly model 128231-800 is recommended for use with this air tool. The capacity of this F-R-L is adequate to provide clean (40 micron) oiled and regulated air for

the tool.

FLUSH TOOL with a solution of three parts cleaning solvent and one part light oil after each 40 hours of operation. After flushing, apply a small amount of spindle oil in air inlet and run free for one minute to insure proper lubrication.

RECOMMENDED HOSE SIZE - 5/16" (8 mm) nominal inside diameter.

RECOMMENDED LUBRICANTS: Spindle Oil 29665, 1 qt. (.9 liter) container for oiler and air inlet; Grease 33153, 5 lb. (2.3 kg) can for gears and bearings, "O" Ring Lubricant 36460, 4 oz. (113 g) tube for lubrication and installation of "O" rings.

## MAINTENANCE

DISCONNECT AIR SUPPLY from tool or shut off air supply line to tool and exhaust (drain) air line to tool of compressed air BEFORE performing service or maintenance to tool.

AIR TOOLS are made of precision parts and should be handled with reasonable care when servicing. Excessive pressure exerted by a holding device may cause distortion of a part. Apply pressure evenly when disassembling (or assembling) parts which have a press fit. When removing or installing bearings, apply pressure to the bearing race that will be the press fit to the mating part; if this is not practiced, Brinelling of the bearing races may occur making replacement necessary. It is important that the correct tools and fixtures are used when servicing this air tool.

DISASSEMBLY should be done on a clean work bench with a clean cloth spread to prevent the loss of small parts. After disassembly is completed, all parts should be thoroughly washed in a clean solvent, blown dry with air and inspected for wear levels, abuse and contami-

nation.

Double sealed or shielded bearings should never be placed in solvent unless a good method of relubricating the bearing is available. Open bearings may be washed but should not be allowed to spin while being blown dry. When REPLACEMENT PARTS are necessary, consult drawing containing the part for identification.

BEFORE REASSEMBLING, lubricate parts where required. Use 33153 grease, or equivalent, in bearings. Use 36460 lubricant for "O" ring assembly. When assembling "O" rings, care must be exercised to prevent damage to the rubber sealing surfaces. A small amount of grease will usually hold steel balls and other small parts in place while assembling.

WHEN ORDERING PARTS, be sure to list PART NUMBER, PART NAME, MODEL NUMBER AND SERIAL NUMBER OF TOOL. USE ONLY GENUINE ARO™ REPLACEMENT PARTS.

## DISASSEMBLY AND REASSEMBLY OF TOOLS

### DISASSEMBLY

- a. Place head of tool in a suitable holding device locating on flats of head. Remove chuck guard (33011) - L.H. Threads. Remove collet body (31813).
- b. Using a wrench on flats of nut (33013), unscrew and remove - L.H. Threads. Remove muffler (35686) and "O" ring (Y325-18).
- c. Using a strap wrench on housing (35683), unscrew and remove from head (36576) - L.H. Threads.
- d. Remove baffle plate (33209) and screw (Y211-82) and press rotor (37034) out opposite end of housing.
- e. Remove roll pin (Y178-44), releasing lever (37159). Remove valve seat (32939) releasing valve (35684) and components.

### ASSEMBLY

- a. Assemble spring (F51-52), valve (35684) and valve seat (32939) with "O" ring (Y325-8) to head. Assemble lever (37159) to head and secure with roll pin (Y178-44).
- b. Assemble spacer (31406), end plate (31116) and bearing (33213) to threaded end of rotor and assemble blades (37035) to rotor. Assemble rotor into housing and assemble other spacer (31406), end plate (31116) and bearing (33213) to rotor and secure with screw (Y211-82). Assemble baffle plate (33209) into housing and assemble housing to head.
- c. Assemble "O" ring (Y325-18) over end of housing (35683) and assemble muffler (35686) over housing to head.
- d. Assemble nut (33013) - L.H. Threads, collet body (31813) and components and chuck guard (33011) - L.H. Threads - to tool.

		(ANSI S5.1-1971)		ISO28927 (m/s <sup>2</sup> )	
		---	ISO3744		
EN	Models	Sound Level dB(A), Pressure	Sound Level dB(A), Power	Vibration Level	Measurement uncertainty
ES	Modelos	Nivel Sonoro dB(A), Presión	Nivel Sonoro dB(A), Potencia	Nivel de Vibración	de error
FR	Modèles	Niveau Acoustique dB(A), Pression	Niveau Acoustique dB(A), Puissance	Niveau de Vibration	incertitude de mesure
IT	Modelli	Livello Acustico dB(A), Pressione	Livello Acustico dB(A), Potenza	Livello di Vibrazione	incertezza misurazione
DE	Modelle	Schallpegel dB(A), Druck	Schallpegel dB(A), Stromzufuhr	Vibrationspegel	Messunsicherheit
NL	Modellen	Geluidsniveau dB(A), Druk	Geluidsniveau dB(A), Vermogen	Trillingsniveau	Meetonnauwkeurigheid bij
DA	Modeller	Lydniveau dB(A), Tryk	Lydniveau dB(A), Effekt	Vibrationsniveau	måleusikkerhed
SV	Modeller	Ljudstyrkenivå dB(A), Tryck	Ljudstyrkenivå dB(A), Effekt	Vibrationsnivå	mätosäkerhet
NO	Modeller	Lydnivå dB(A), Trykk	Lydnivå dB(A), Styrke	Vibrasjonsnivå	måleusikkerhet
FI	Mallit	Melutaso dB(A), Paine	Melutaso dB(A), Teho	Värinätaso	mittauksen epävarmuus
PT	Modelos	Nível de Ruído dB(A), Pressão	Nível de Ruído dB(A), Potência	Nível de Vibrações	Incerteza de medida
EL	Μοντέλα	Ηχητική Στάθμη dB(A), Πίεση	Ηχητική Στάθμη dB(A), Ισχύς	Επίπεδο Κραδασμών	αβεβαιότητα μέτρησης
SL	Modeli	Raven Hrupa dB(A), Pritisk	Raven Hrupa dB(A), Moč	Raven Tresljajev	merilna negotovost
SK	Modely	Hladina Hluku dB(A), Tlak	Hladina Hluku dB(A), Výkon	Hladina Vibrácií	neistota merania
CS	Modely	Hladina Hluku dB(A), Tlak	Hladina Hluku dB(A), Výkon	Hladina Vibrací	nejistota měření
ET	Mudelid	Müratase dB(A), Rõhk	Müratase dB(A), Võimsus	Vibratsioonitase	mõõtmise määramatust
HU	Modellek	Zajszint dB(A), Nyomás	Zajszint dB(A), Teljesítmény	Vibrációs Szint	mérési bizonytalanság
LT	Modeliai	Garso Lygis dB(A), Slėgis	Garso Lygis dB(A), Galia	Vibracijos Lygis	matavimo paklaida
LV	Modeļi	Skaņas Līmenis dB(A), Spiediens	Skaņas Līmenis dB(A), Jauda	Vibrāciju Līmenis	mērījuma neprecizitāte
PL	Modele	Poziom Głośności dB(A), Ciśnienie	Poziom Głośności dB(A), Moc	Poziom Wibracji	niepewność pomiarowa
BG	Модели	Ниво на Звук dB(A), Налягане	Ниво на Звук dB(A), Мощност	Ниво на Вибрация	несигурност в измерването
RO	Modele	Nivel de Zgomot dB(A), Presiune	Nivel de Zgomot dB(A), Putere	Nivel Vibrații	toleranța la măsurare
TR	Modeller	Ses Seviyesi dB(A), Basınç	Ses Seviyesi dB(A), Güç	Titreşim Seviyesi	ölçüm belirsizliği
	7114-E	---	---	3.9	1.1

## DECLARATION OF CONFORMITY



(ES) DECLARACIÓN DE CONFORMIDAD (FR) CERTIFICAT DE CONFORMITÉ (IT) DICHIARAZIONE DI CONFORMITÀ (DE) KONFORMITÄTSEKRLÄRUNG (NL) SCHRIFTELIJKE VERKLARING VAN CONFORMITEIT (DA) FABRIKATIONSERKLÆRING (SV) FÖRSÄKRAN OM ÖVERENSSTÄMMELSE (NO) KONFORMITETSERKLÆRING (FI) VAKUUTUS NORMIEN TÄYTTÄMISESTÄ (PT) DECLARAÇÃO DE CONFORMIDADE (EL) ΔΗΛΩΣΗ ΑΝΑΓΝΩΡΙΣΗΣ (SL) IZJAVA O SKLADNOSTI (SK) PREHLÁSENIE O ZHODE (CS) PROHLÁŠENÍ O SHODE (ET) VASTAVUSDEKLARATSIOON (HU) MEGFELELŐSÉGI NYILATKOZAT (LT) ATITIKTIES PAREIŠKIMAS (LV) ATBILSTĪBAS DEKLARĀCIJA (PL) DEKLARACJA ZGODNOŚCI (BG) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ (RO) DECLARAȚIE DE CONFORMITATE (TR) UYGUNLUK BİLDİRİMİ

Ingersoll Rand

Hindley Green, Wigan WN2 4EZ, UK

Declare under our sole responsibility that the product: Air Grinder

(ES) Declaramos que, bajo nuestra responsabilidad exclusiva, el producto: Amoladora neumática (FR) Déclarons sous notre seule responsabilité que le produit: Meuleuse pneumatique (IT) Dichiaro sotto la nostra unica responsabilità che il prodotto: Molatrice pneumatica (DE) Erkläre hiermit, gemäß unserer alleinigen Verantwortung, daß die Geräte: Druckluft-Schleifmaschine (NL) Verklaan, onder onze uitsluitende aansprakelijkheid, dat het product: Pneumatische slijpmachine (DA) Erklærer som eneansvarlig, at nedenstående produkt: Trykluftsslibemaskine (SV) Intyggar härmed, i enlighet med vårt fullständiga ansvar, att produkten: Vinkelslip (NO) Erklærer som eneansvarlig at produktet: Air slipemaskin (FI) Vakuutamme ja kannamme yksin täyden vastuun siitä, että tuote: Paineilmahiomakone (PT) Declaramos sob a nossa exclusiva responsabilidade que o produto: Rectificador pneumático (EL) Δηλώνουμε ότι με δική μας ευθύνη το προϊόν: Τροχός αέρος (SL) Pod polno odgovornostjo izjavljamo, da se izdelek: Pnevmatški brusilni stroj (SK) Prehlasujeme na svoju zodpovednosť, že produkt: Vzduchová brúska (CS) Prohlasujeme na svou zodpovednost, že výrobek: Pneumatická bruska (ET) Deklareerime oma ainuvastutusel, et toode: Pneumoliivseade (HU) Kizárolagos felelősségünk tudatában kijelentjük, hogy a termék: Sűrített levegős csiszoló (LT) Prisimdam atsakomybę pareiškiame, kad gaminys: Pneumatinis šlifuoklis (LV) Uzņemoties pilnīgu atbildību, apliecinām, ka ražojums: Pneimatiskā slīpmašīna (PL) Oświadczam, że ponosi pełną odpowiedzialność za to, że produkt: Szlifierka pneumatyczna. (BG) Декларираме на собствена отговорност, че продуктът: Пневматична шлифовъчна машина (RO) Declaram sub propria răspundere că produsul: Polizor pneumatic (TR) Kendi münhasır sorumluluğu altında- bu beyanatin ilgilili olduđu: Hava Ögütücü

Model: 7114-E / Serial Number Range: SP10A → XXXXX

(ES) Modelo: / Gama de No. de Serie: (FR) Modèle: / No. Serie: (IT) Modello: / Numeri di Serie: (DE) Modell: / Serien-Nr.-Bereich: (NL) Model: / Seriennummers: (DA) Model: / Serien: (SV) Modell: / Seriennummer, mellan: (NO) Modell: / Serien: (FI) Mallia: / Sarjanumero: (PT) Modelo: / Gama de Nos de Série: (EL) Μοητελα: / Κλίμαχα Αύξοντος Αριθμού: (SL) Model: / Območje serijskih števil: (SK) Model: / Výrobné číslo (CS) Model: / Výrobní číslo (ET) Mudel: / Seerianumbrite vahemik (HU) Modell: / Gyártási szám-tartomány (LT) Modeliai: / Serijos numeriai (LV) Modelis: / Sērijas numuru diapazons (PL) Model: / O numerach seryjnych (BG) Модел: / Сериини номера от до (RO) Model: / Domeniu număr serie (TR) Model:seri No. Aralığı:

To which this declaration relates, is in compliance with provisions of Directive(s): 2006/42/EC (Machinery)

(ES) a los que se refiere la presente declaración, cumplen con todo lo establecido en las directivas: (FR) objet de ce certificat, est conforme aux prescriptions des Directives: (IT) a cui si riferisce la presente dichiarazione è conforme alle normative delle direttive: (DE) auf die sich diese Erklärung bezieht, den Richtlinien: (NL) waarop deze verklaring betrekking heeft overeenkomt met de bepalingen van directieven: (DA) som denne erklæring vedrører, overholder bestemmelseerne i følgende direktiver: (SV) som detta intyg avser, uppfyller kraven i Direktiven: (NO) som denne erklæringen gjelder for, oppfyller bestemmelsene i EU-d irektivene: (FI) johon tämä vakuutus viittaa, täyttää direktiiveissä: (PT) ao qual se refere a presente declaração, está de acordo com as prescrições das Directivas: (EL) τα οποία αφορά αυτή η δήλωση, είναι σύμφωνα με τις προβλέψεις των Εντολών: (SL) Na kateroga se ta izjava o skladnosti nanaša, sklada z določili smernic: (SK) Ku ktorému sa toto prehlásenie vzťahuje, zodpovedá ustanoveniam smerníc: (CS) Ke kterým se toto prohlášení vztahuje, odpovídají ustanovením směrnic: (ET) Mida käesolev deklaratsioon puudutab, on vastavuses järgmis(t)e direktiivi(de) sätetega: (HU) Amelyekre ezen nyilatkozat vonatkozik, megfelelnek a következő irányelv(ek) előírásainak: (LT) Kuriems taikomas šis pareiškimas, atitinka šios direktyvos nuostatas: (LV) Uz kuru šī deklarācija attiecas, atbilst direktīvas(u) nosacījumiem: (PL) Do których ta deklaracja się odnosi, są zgodne z postanowieniami Dyrektywy (Dyrektyw): (BG) За който се отнася настоящата декларация, е в съответствие с разпоредбите на Директива (и): (RO) Produsul la care se referă declarația este conform cu prevederile Directivei(ilor): (TR) Yönetmelik(ler) koşullarına uygun olduđunu beyan eder:

By using the following Principle Standards: ISO28927, ANSI 55.1-1971, ISO3744, EN792

(ES) conforme a los siguientes estándares: (FR) en observant les normes de principe suivantes: (IT) secondo i seguenti standard: (DE) unter Anlehnung an die folgenden Grundnormen entsprechen: (NL) overeenkomstig de volgende hoofdstandaards: (DA) ved at være i overensstemmelse med følgende hovedstandard(er): (SV) Genom att använda följande principstandard: (NO) ved å bruke følgende prinsipielle standarder: (FI) esitetty vaatimukset seuraavia perusnormeja käytettäessä: (PT) observando as seguintes Normas Principais: (EL) Χρησιμοποιώντας τα παρακάτω κύρια πρότυπα: (SL) Uporabljeni osnovni standardi: (SK) Použitím nasledujících zákonných noriem: (CS) Použitím následujících zákonných norem: (ET) Järgmistele põhistandardite kasutamise korral: (HU) A következő elvi szabványok alkalmazásával: (LT) Remiantis šiais pagrindiniais standartais: (LV) Izmantojot sekojošos galvenos standartus: (PL) Przy zastosowaniu następujących podstawowych norm: (BG) С използване на следните основни Стандарти: (RO) Utilizând următoarele standarde de principii: (TR) Aşağıdaki standartları kullanarak:

Date: January, 2010

(ES) Fecha: Enero, 2010: (FR) Date: Janvier, 2010: (IT) Data: Gennaio, 2010: (DE) Datum: Januar, 2010: (NL) Datum: Januari, 2010: (DA) Dato: Januar, 2010: (SV) Datum: Januari, 2010: (NO) Dato: Januar, 2010: (FI) Päiväys: Tammikuu, 2010: (PT) Data: Janeiro, 2010: (EL) Ημερομηνία: Ιανουάριος, 2010: (SL) Datum: Januar, 2010: (SK) Dátum: Január, 2010: (CS) Datum: Leden, 2010: (ET) Kuupäev: Jaanuar, 2010: (HU) Dátum: Január, 2010: (LT) Data: Sausis, 2010: (LV) Datums: Janvaris, 2010: (PL) Data: Styczeń, 2010: (BG) Дата: Януари, 2010: (RO) Data: Ianuarie, 2010: (TR) Tarih: Ocak, 2010

Approved By:

(ES) Aprobado por: (IT) Approvato da: (FR) Approuvé par: (DE) Genehmigt von: (NL) Goedgekeurd door: (DA) Godkendt af: (SV) Godkänt av: (NO) Godkjent av: (FI) Hyväksytty: (PT) Aprovado por: (EL) Εγκρίθηκατό: (SL) Odobril: (SK) Schválil: (CS) Schválil: (ET) Kinnitatud: (HU) Jóváhagyta: (LT) Patvirtinta: (LV) Apstiprināja: (PL) Zatwierdzone przez: (BG) Одобрен от: (RO) Aprobat de: (TR) Onaylayan:

H. Seddon  
Quality Assurance Manager

Patrick S. Livingston  
Global Engineering Manager

**ARO**

**IR** Ingersoll Rand  
Industrial Technologies

CONTROLLED DOCUMENT NO.

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