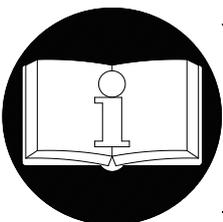
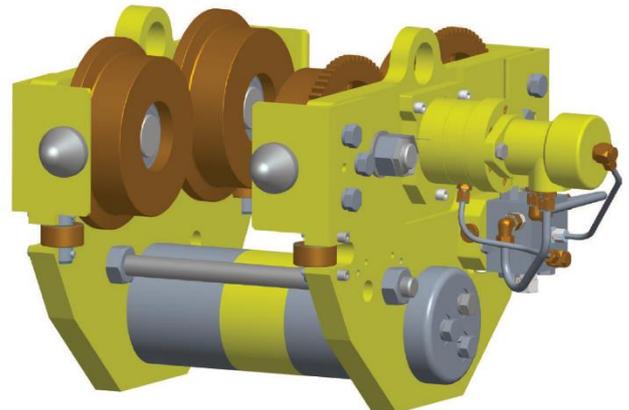
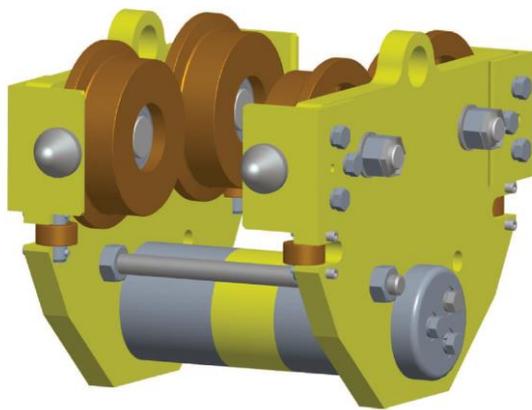


PARTS, OPERATION AND MAINTENANCE MANUAL FOR TROLLEYS

TR2U250-PE0MT1-PN-4040792 (CCN 47667262001)
TR2U250-H0E0MT1-PN-4040792 (CCN 47667258001)



READ THIS MANUAL BEFORE USING THESE PRODUCTS. This manual contains important safety, installation, operation and maintenance information. Make this manual available to all persons responsible for the operation, installation and maintenance of these products.

WARNING

Do not use this trolley for lifting, supporting, or transporting people or lifting or supporting loads over people.

Always operate, inspect and maintain this trolley in accordance with European or National Standards Safety Code and any other applicable safety codes and regulations.
Refer all communications to the nearest Ingersoll-Rand Material Handling Products Office or Distributor.

Form SAM0386
Edition 1
August 2019

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SAFETY INFORMATION

This manual provides important information for all personnel involved with the safe installation, operation and proper maintenance of this product. Even if you feel you are familiar with this or similar equipment, you should read and understand this manual before operating the product.

Danger, Warning, Caution and Notice

Throughout this manual there are steps and procedures which, if not followed, may result in injury. The following signal words are used to identify the level of potential hazard.

DANGER

Danger is used to indicate the presence of a hazard which *will* cause *severe* injury, death, or substantial property damage if the warning is ignored.

WARNING

Warning is used to indicate the presence of a hazard which *can* cause *severe* injury, death, or substantial property damage if the warning is ignored.

CAUTION

Caution is used to indicate the presence of a hazard which *will* or *can* cause *minor* injury or property damage if the warning is ignored.

NOTICE

Notice is used to notify people of installation, operation or maintenance information which is important but not hazard-related.

Safety Summary

WARNING

- **Do not use this trolley or attached equipment for lifting, supporting, or transporting people or supporting loads over people.**
- **The supporting structures and load-attaching devices used in conjunction with this trolley must provide and adequate safety factor to handle the rated load, plus the weight of the trolley and attached equipment. This is the customer's responsibility. If in doubt, consult a qualified structural engineer.**

The National Safety Council, Accident Prevention Manual for Industrial Operations, Eighth Edition and other recognized safety sources make a common point.

Employees who work near cranes or assist in hooking on or arranging a load should be instructed to keep out from under the load. From a safety standpoint, one factor is paramount : conduct all lifting operations in such a manner that if there were an equipment failure, no personnel would be injured. This means keep out from under a raised load and keep out of the line of force of any load.

To our interpretation, INGERSOLL-RAND Material Handling trolleys are manufactured in accordance with the latest standards.

However, contrary to common belief, as we understand it, generally places the burden of compliance with the user, not the manufacturer. Many requirements are not concerned or connected with the manufactured product but are, rather, connected with the final installation. It is the owner's responsibility and user's responsibility to determine the suitability of a product for any particular use. Check all applicable industry, trade association, federal, state and local regulations. Read all operating instructions and warnings before operation.

Rigging : It is the responsibility of the operator to exercise caution, use common sense and be familiar with proper rigging techniques.

NOTICE

- **INGERSOLL-RAND Replacement Parts are specifically designed to ensure optimum performance of your equipment. Use of other than genuine INGERSOLL-RAND Material Handling parts may adversely affect safe operation and will invalidate the warranty.**

SAFE OPERATING INSTRUCTIONS

The following warnings and operating instructions are intended to avoid unsafe operating practices which might lead to injury or property damage.

INGERSOLL-RAND recognizes that most companies who use hoists and trolley safety program in force at their facility. In the event that some conflict exists between a rule set forth in this publication and a similar rule already set by an individual company, the more stringent of the two should take precedence.

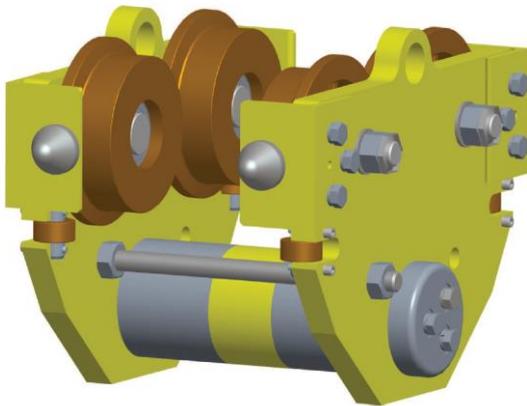
Safe Operating Instructions are provided to make an operator aware of dangerous practices to avoid and are not necessarily limited to the following list. Refer to specific sections in the manual for additional safety information.

Refer to the hoist manual for additional precautions and instructions.

1. Only allow qualified people (trained in safety and operation) to operate the trolley.
2. Only operate a trolley if you are physically fit to do so.
3. When a "DO NOT OPERATE" sign is placed on the trolley controls, do not operate the trolley until the sign has been removed by designated personnel.
4. Before each shift, the operator should inspect the trolley for wear or damage.
5. Never use a trolley that inspection indicates is defective.
6. Periodically, inspect the trolley thoroughly and replace worn or damaged parts.
7. Lubricate the trolley regularly.
8. Using the hoist, only lift loads less than or equal to the lower rated capacity of the trolley or hoist.
9. Only attach a hoist having a rated capacity equal to or less than the capacity of the trolley.
10. When using two hoists to suspend one load, select two trolleys each having a rated capacity equal to or more than the load. This provides adequate safety in the event of a sudden load shift or failure of one trolley.
11. Never place your hand inside the throat area of a hook.
12. Only operate a trolley when the load is centered under the trolley. Do not "side pull" or "yard".
13. Pay attention to the load at all times when operating the trolley.
14. Make sure all people are clear of the load path. Do not lift a load over people.
15. Never use the trolley for lifting or lowering people, and never allow anyone to stand on a suspended load.
16. Do not swing a suspended load.
17. Never suspend a load for an extended period of time.
18. Never leave a suspended load unattended.
19. Never weld or cut a load suspended by the trolley.
20. Always rig the load properly and carefully.
21. Remove all loads before performing any maintenance.
22. Avoid collision or bumping of trolley.
23. After use, properly secure trolley and all loads.

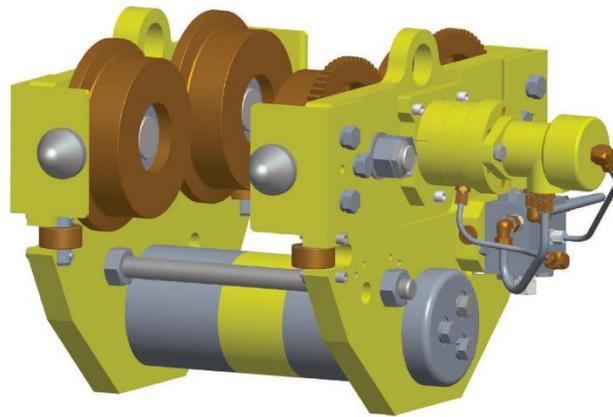
TECHNICAL SPECIFICATIONS

- **TR2U250-PE0MT1-PN-4040792 (CCN 47667262001)**



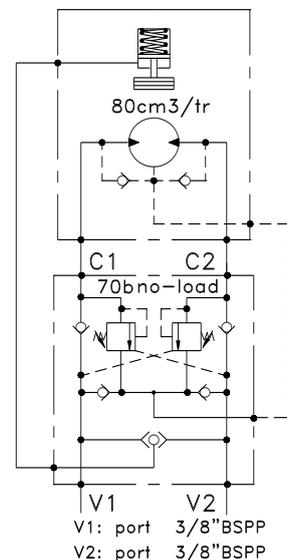
TR2U250-PE0MT1-PN-4040792	
Maximum load capacity :	25 T
Working pressure :	-
Calibration pressure :	-
Nominal flow :	-
Travelling speed : m/mn	-
Weight :	320 kg
Type of Beam:	IPE
Beam width :	330 mm
Beam thickness :	40 mm max

- **TR2U250-H0E0MT1-PN-4040792 (CCN 47667258001)**



TR2U250-H0E0MT1-PN-4040792	
Maximum load capacity :	25 T
Working pressure :	70 bar
Calibration pressure :	100 bar
Nominal flow :	10 l/mn
Travelling speed : m/mn	0 <V<12
Weight :	340 kg
Type of Beam:	IPE
Beam width :	330 mm
Beam thickness :	40 mm max

HYDRAULIC SCHEME



INSTALLATION

WARNING

- Before installing read "SAFETY INFORMATION",
- Make sure trolley wheels are compatible with the beam. Tapered wheels are for use only with "I" beams (IPN) ; flat tread wheels are for use only with "H" type beams (IPE).

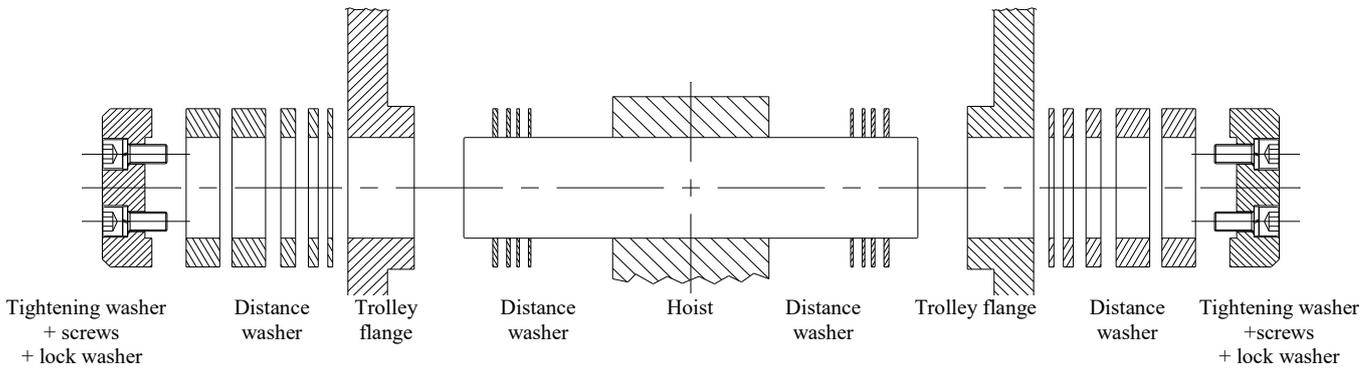
NOTICE

- Trolley wheels ride on the top of the lower flange of the beam.
- During assembly lubricate gears, nuts, capscrews, and all machined threads with applicable lubricants. Use of antiseize compound and/or thread lubricant on capscrew and nut threaded areas prevents corrosion.

Trolley adjustment according to travelling beam used

The adjustment is realized with the distance washer (Rep. 2 and Rep. 3).

1. Stack un the washers as notified on the following sheet.
2. Position the tightening washers Rep. 6 and tighten the screws Rep.9 with washers Rep.8 at 30 m.daN torque (TR2U250).
3. Tighten the nuts M30 Rep. 10.



Rolling beam	Additional thickness of distance washer	Thickness of distance washer	HOIST	Thickness of distance washer	Additional thickness of distance washer
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- **TR2U250-PE0MT1-PN-4040792 (CCN 47667262001)**
- **TR2U250-H0E0MT1-PN-4040792 (CCN 47667258001)**

HE larg 330	0	5+5+5+5+5+5+27.5+27.5+27.5+27.5	100	27.5+27.5+27.5+27.5+5+5+5+5+5+5	0
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INSPECTION

There are two types of inspection, the frequent inspection performed by the operator and periodic inspections performed by qualified personnel. Careful inspection on a regular basis will reveal potentially dangerous conditions while still in the early stages, allowing corrective action to be taken before the condition becomes dangerous.

Any deficiency revealed through inspection must be reported to an appointed person. A determination must be made as to whether a deficiency constitutes a safety hazard before resuming operation of the trolley or hoist.

Records and Reports

Some form of inspection record should be maintained for each trolley, listing all points requiring periodic inspection. A written report should be made quarterly on the condition of the critical parts (e.g. wheels, bearings, gears, side plates and hoist suspender) of each trolley. These reports should be dated, signed by the person who performed the inspection, and kept on file where they are readily available to authorized personnel.

NOTICE

- **During assembly/disassembly visually inspect each component for distortion, wear and damage. Replace items indicating damage, distortion and/or excessive wear. Proper use, inspections and maintenance will increase the life and usefulness of your INGERSOLL-RAND equipment.**

Frequent Inspection

On trolleys in continuous service, frequent inspection should be made at the beginning of each shift. In addition, visual inspections should be conducted during regular service for any damage or evidence of malfunction.

1. **OPERATION.** Operate the trolley so that it travels a few feet (1 meter). During the few feet (1 meter) of travel, check for visual signs or abnormal noises which could indicate a defect. Check for smooth operation. Do not operate the trolley until all defects have been corrected.
2. **HYDRAULIC SYSTEM.** Visually inspect all connections, fittings, hoses and components for indication of hydraulic leaks. Repair any leaks found.
3. **CONTROLS.** During operation of trolley, verify trolley response to pendant use is quick and smooth. If trolley responds slowly or movement is unsatisfactory, do not operate the trolley until all defects have been corrected.

Periodic Inspection

Frequency of periodic inspection depends on the severity of usage :

NORMAL	HEAVY	SEVERE
yearly	semi-annually	quarterly

Disassembly may be required for HEAVY or SEVERE usage. Keep accumulative records of periodic inspections to provide a basis for continuing evaluation. Inspect all the items in a "Frequent Inspection". Also inspect the following :

1. **FASTENERS.** Check retainer rings, split pins, capscrew and nuts. Replace if missing or damaged and tighten if loose.
2. **ALL COMPONENTS.** Inspect for wear, damage, distortion, deformation and cleanliness. If external evidence indicates the need, disassemble. Check gears, shafts and bearings. Replace worn or damaged parts. Clean, lubricate and reassemble.
3. **SUPPORTING STRUCTURE.** Check for distortion, wear and continued ability to support load.
4. **WHEELS.** Check that the trolley wheels track the beam properly and total clearance between wheels and beam equals 3/32 to 5/32 in. (2 to 4 mm). Repair as necessary.
5. **SIDEPLATES.** Check side plates for spreading due to bending. Replace if spreading has occurred
6. **LABELS.** Check for presence and legibility. Replace if necessary.

Trolleys Not in Regular Use

A trolley which has been idle for a period of one month or more, but less than six months, shall be given an inspection conforming with the requirements of "Frequent Inspection". A trolley which has been idle for a period of over six months shall be given a complete inspection conforming with the requirements of "Periodic Inspection". Standby trolleys shall be inspected at least semi-annually in accordance with the requirements of "Frequent Inspection". If abnormal operating conditions apply, trolleys may require a more frequent inspection.

TROUBLE SHOOTING

This section provides the information necessary for troubleshooting of this trolley. Determination of specific causes to problems are best identified by thorough inspection. The chart below provides a brief guide to common trolley problems, probable causes and solutions.

SYMPTOM	CAUSE	REMEDY
Trolley will not operate.	Trolley is overloaded.	Reduce load to within rated capacity.
	Trolley wheel bearings are damaged.	Replace trolley bearings.
	Pinion gear damaged.	Replace pinion gear.
	Geared wheel(s) damaged.	Replace geared wheel(s).
	Motor damaged.	Replace hydraulic motor.
Trolley won't stop or trolley wheels slip.	Oil or grease on track or beam.	Clean track and trolley wheels.
	Damaged brake lining.	Disassemble hydraulic motor and replace brake lining.
Poor motor performance or loss of power.	Low supply hydraulic flow.	Check hydraulic supply line flow. (see SPECIFICATION)

MAINTENANCE

WARNING

- Never perform maintenance on the trolley while it is supporting a load. A falling load can cause injury or death of personnel and damage to property.
- Before starting maintenance, tag controls :
DANGER - DO NOT OPERATE EQUIPMENT BEING REPAIRED.
- Only allow qualified service personnel to perform maintenance.
- Disconnect hydraulic supply from trolley prior to conducting maintenance.

NOTICE

- Proper use, inspections and maintenance increase the life and usefulness of your **INGERSOLL-RAND** equipment. During assembly lubricate gears, nuts, capscrews and all machined threads with applicable lubricants. Use of antiseize compound and/or thread lubricant on capscrew and nut threaded areas prevents corrosion and allows for ease of disassembly of component.

General Assembly / Disassembly Instructions

1. During assembly/disassembly steps for installation and/or repair visually inspect components for distortion, wear and damage. Replace any item indicating damage, distortion and/or excessive wear.
2. Do not disassemble further than required to accomplish repair. A good part can be damaged during the course of disassembly.
3. Do not use excessive force to remove or install parts. Use proper tools for the installation of press fit parts. During disassembly, use a soft hammer to tap around the outside of parts that are stuck together due to corrosion.
4. Do not use a flame to heat a part for ease in installation. During disassembly, only use flame to heat a part that is damaged beyond repair ; use a procedure that will not result in damage to other parts ; and, use this option only after all other reasonable measures have been attempted.
5. Always use leather or copper-covered vise jaws to protect threaded and machined surfaces of parts being placed in the vise.
6. When installing bearings, only press on the bearing race contacting the component to be installed into. For shafts, press on the inner bearing race ; for housings, press on the outer bearing race.
7. Do not damage seating surfaces during gasket and 'O'ring removal. Use wood, plastic or brass removal tools to prevent scoring of machined sealing surfaces.
8. Always use only genuine **INGERSOLL-RAND** replacement parts. When ordering specify part number, part description, unit model and serial number.
9. Do not perform repairs to trolleys in place. It is recommended that trolleys be removed and repaired in a clean, safe work area.

Trolley Disassembly

NOTICE

- Prior to disassembly note the installation of the adjusting spacers (Rep. 2 and 3). Install adjusting

spacers (Rep. 2 and 3), during assembly, in the same configuration recorded during disassembly to ensure track flange width and hoist position are retained.

- Prior to disassembly of trolley, first remove trolley motor-brake unit (see **Motor-Brake Disassembly**) and then remove hoist.

TR2U250-H0E0MT1-PN-4040792

(ref. Dwg. Page N°10)

1. Remove screws (18, 19), motion control and lock valves (17).
2. Remove screws (21), lock washer (22) and motion control support (20).
3. Remove retainer ring (13), distance ring (4).
4. Gently extract the trolley wheels.
5. Remove retainer ring (9), distance ring (12), front seal (6).
6. Remove roller bearings (8), rear seal (6).
7. Remove nuts (40) and screw rod (39).
8. Remove screws (31) and spring washers (30).
9. Remove tightening washer (29).
10. Remove connecting axle (38), distance washers (items 32 thru 37).

Trolley assembly

Assembly of the trolley is the same as disassembly in opposite order.

-Lubricate bearings and seals with VG68 (EP2) grease.

-Use of Loctite® on screws and nuts threaded areas.

Motor-Brake Disassembly for TR2U250

(ref. Dwg. D63490212)

1. To remove motor-brake unit :
 - a. Disconnect hydraulic hoses.
 - b. Remove screws (25) and lockwashers (24).
 - c. Gently extract the motor-brake.
2. Remove screws (29) and lock washers (23).
3. Gently extract hydraulic motor.
4. Remove screws (27) and flange (5).
5. Remove the brake unit.
6. Remove screws (26).
7. Remove cover (6), springs (11) and brake piston (10).
8. Remove 'O'ring (18) and back-up-ring (17).
9. Remove brake housing (7), 'O'ring (19) and back-up-ring (16).
10. Remove brake housing (8), stop ring (9), friction disc (14) and steel disc (13).
11. Remove screw (28) and washer (22).
12. Remove pinion gear (4).
13. Remove shaft (2). If the shaft (2) is difficult to move, gently tap it with soft hammer to loosen.
14. Remove retainer ring (21).
15. Remove bearing (30) and oil seal (20).

Motor-brake assembly

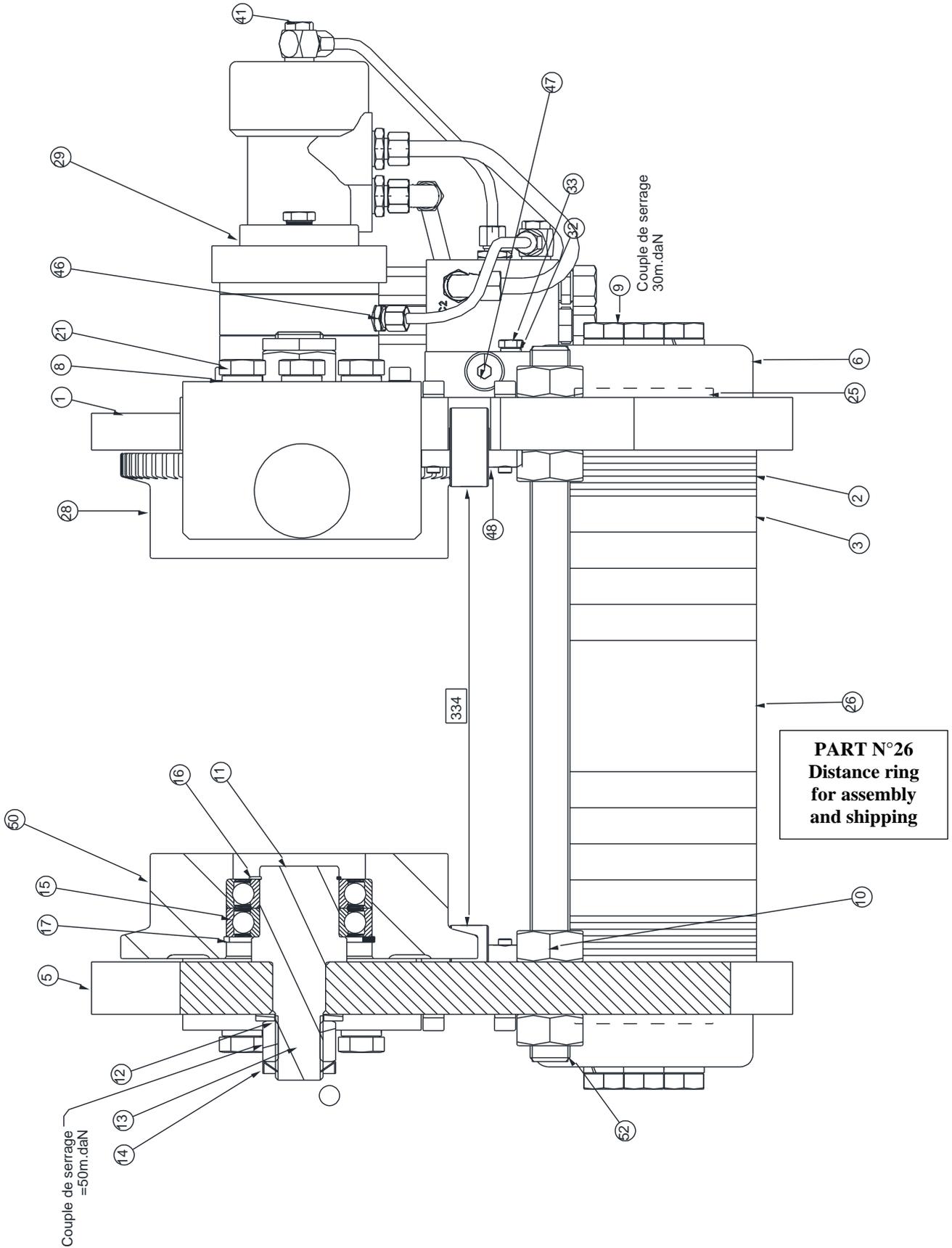
Assembly of the motor-brake is the same as disassembly in opposite order.

-Lubricate between the lips seal (20) with grease.

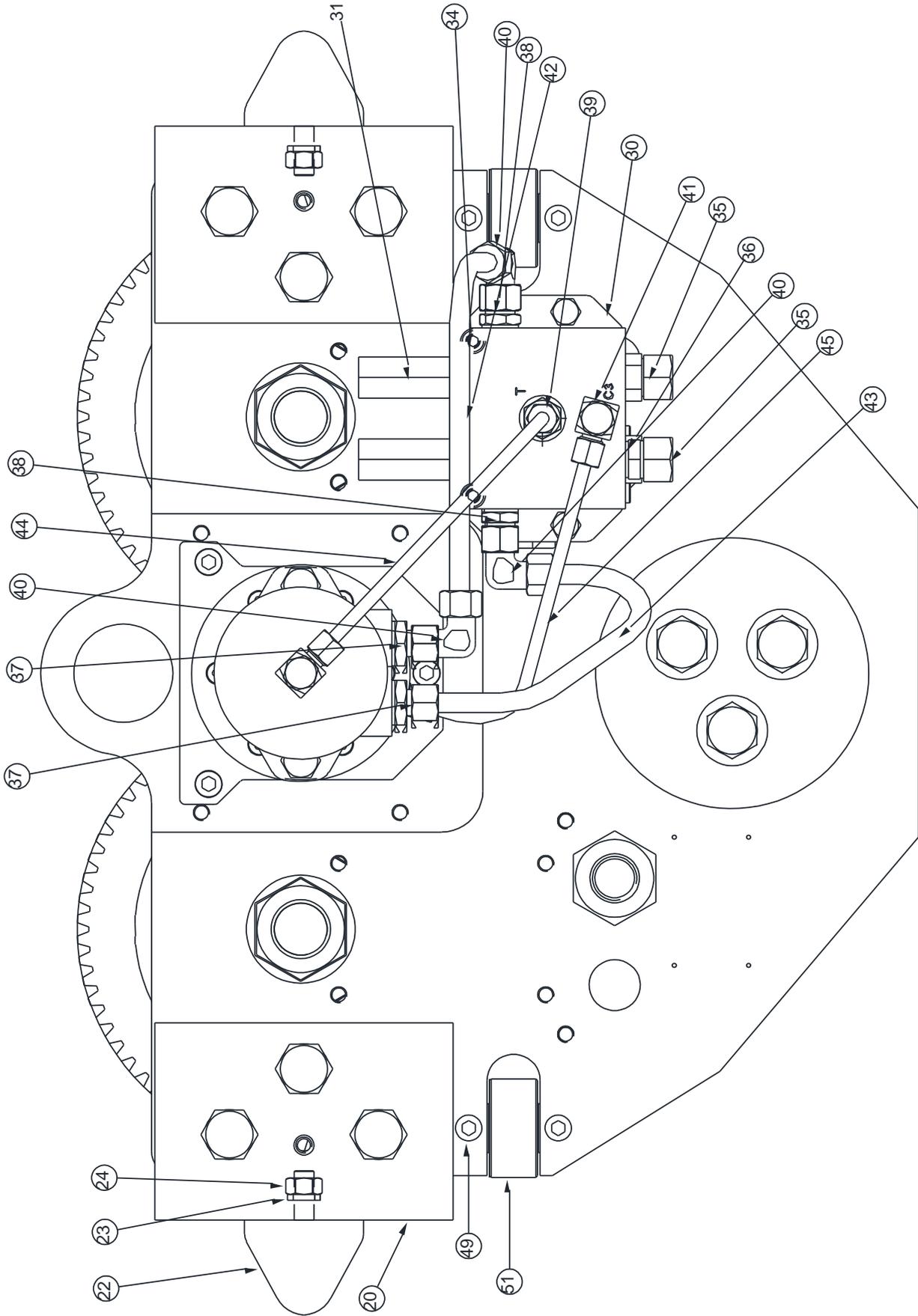
-Lubricate the "O"ring and gaskets with oil before assembly.

-Use of Loctite® on screws threaded area.

HYDRAULIC TROLLEY 25 T - TR2U250-H0E0MT1-PN-4040792 (DRAWING)



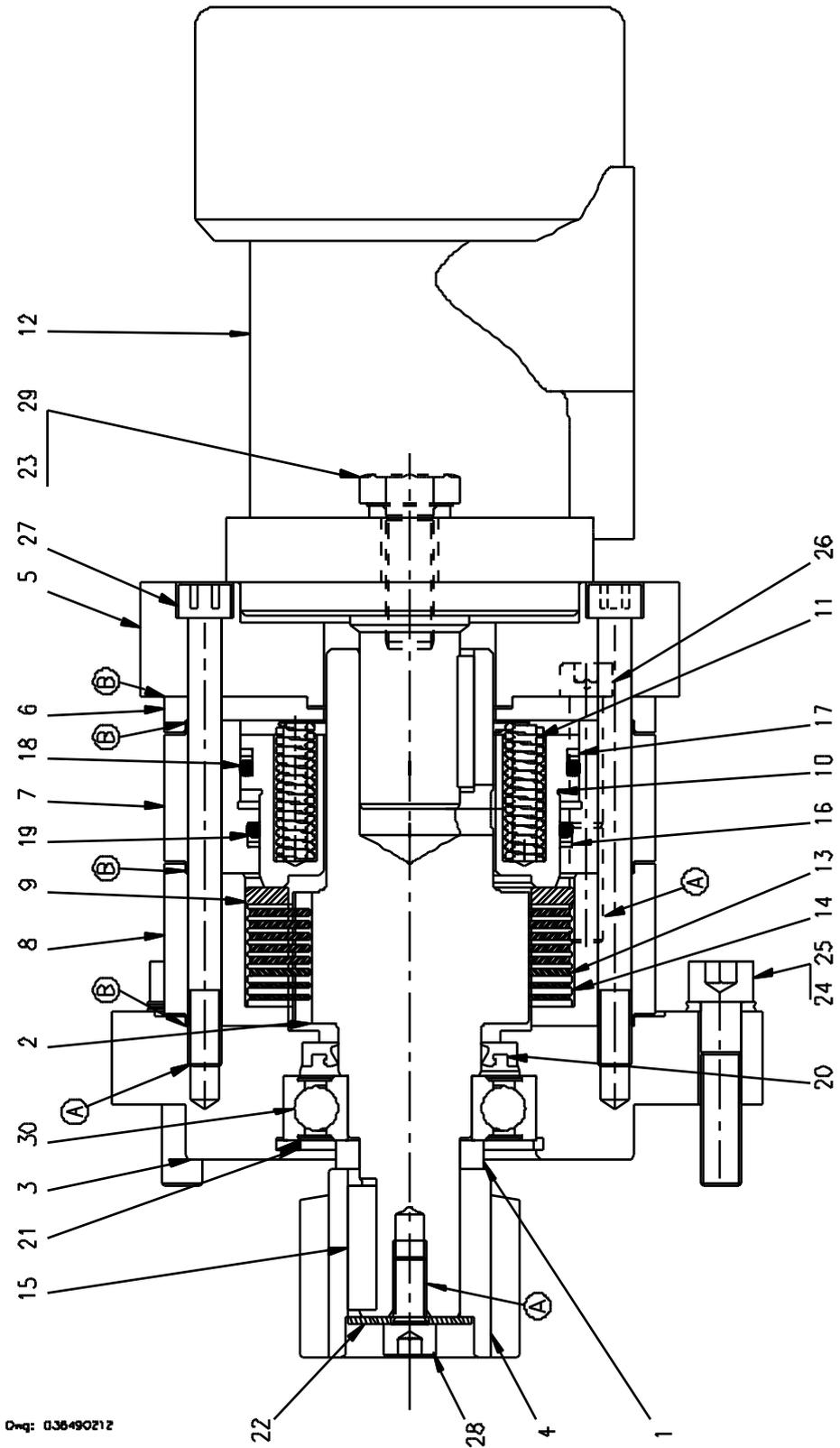
HYDRAULIC TROLLEY 25 T - TR2U250-H0E0MT1-PN-4040792 (DRAWING)



HYDRAULIC TROLLEY 25 T - TR2U250-H0E0MT1-PN-4040792 (PART LIST)

52	1	9649-0858	47668503002	THREADED ROD (HDG) (FER L330)
51	4	96490003	38787263	Roller
50	2	96490181	38788097	Galet lisse laiton - Fer type IPE
49	8	41323306	38631990	Screw CHc M10 x 60
48	4	96490002	38787255	Roller Axle
47	1	65139728	38565800	Plug
46	1	68250528	38655379	Pipe Union 8L - Ø1/4" (Inox)
45	1	96490340	46881496	Tube de frein
44	1	96490341	46881504	Tube drainage
43	1	96490343	46881520	Tube d'alimentation
42	1	96490342	46881512	Tube d'alimentation
41	2	68249028	38655411	Banjo 8L - 1/4
40	3	68154028	38755302	Coude orientable 12L
39	1	68250728	38655395	Pipe Union 8L- Ø3/8" (Inox)
38	2	68250228	38655346	Pipe Union 12L - Ø3/8" (Inox)
37	2	68250928	38657375	Fitting 12L 1-2
36	2	65110741	38648192	Plug
35	2	68157128	38768081	Pipe Union 15L- Ø3/8" (Inox)
34	2	41326706	38632261	Screw CHc M8x40
33	2	41008801	38533261	Vis H M10x45
32	10	45201010	38634226	Lockwasher
31	1	68610241	38653325	Counterbalance valve
30	1	96240531	38796231	Drain bloc
29	1	36490212	38796843	Hydraulic Moto-Reducer-Brake
28	2	96490182	38788105	Galet denté laiton - Fer type IPE
26	1	96490859	47668503003	DISTANCE RING 100 MM
25	1	9649-0857	47668503001	AXE DE LIAISON (FER L330)
24	4	43003611	38540662	Nut M12
23	4	45201012	38540696	Lockwasher
22	4	69886832	38654794	Bumper
21	12	41001401	38629895	Screw M20x50
20	4	96490119	38787412	Stop Fall
17	4	47703110	38635835	Retainer Ring I110
16	4	47700060	38534327	Retainer Ring E60
15	8	50150012	38636940	Ball Bearing
14	4	43008411	38780003	Locknut PAL M36
13	4	43007411	38633186	Nut H M36
12	4	45000136	38566295	Washer M36
11	4	96490004	38787271	Wheel Axle
10	4	43006711	38633152	Nut
9	6	41022901	38748083	Screw M20x70
8	18	45201020	38541611	Lockwasher W20 - EZ
6	2	96490008	38787313	Cap
5	1	96490010	38787339	Flasque
3	8	96490021	38787404	Distance Ring 27.5mm
2	14	96490001	38787248	Distance Ring 5mm
1	1	96490015	38787388	Flasque coté MRF
ITEM	QTY.	PART NO.	CCN NO.	DESCRIPTION

HYDRAULIC MOTOR & REDUCER ASSEMBLY DRAWING



Dwg: 036490212

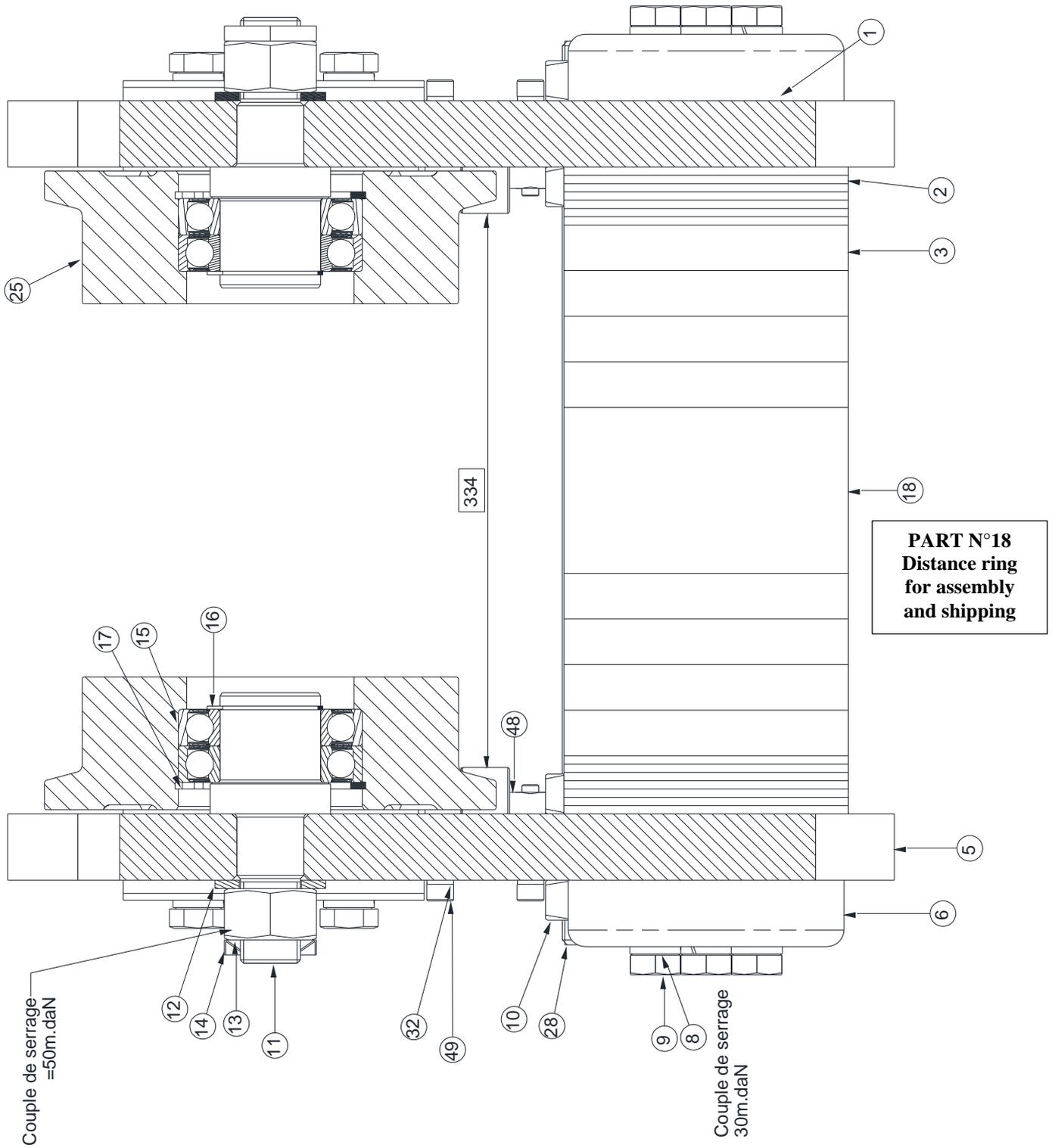
- Items :
- « A » Loctite® 273
 - « B » Loctite® 574

HYDRAULIC MOTOR & REDUCER ASSEMBLY PARTS LIST

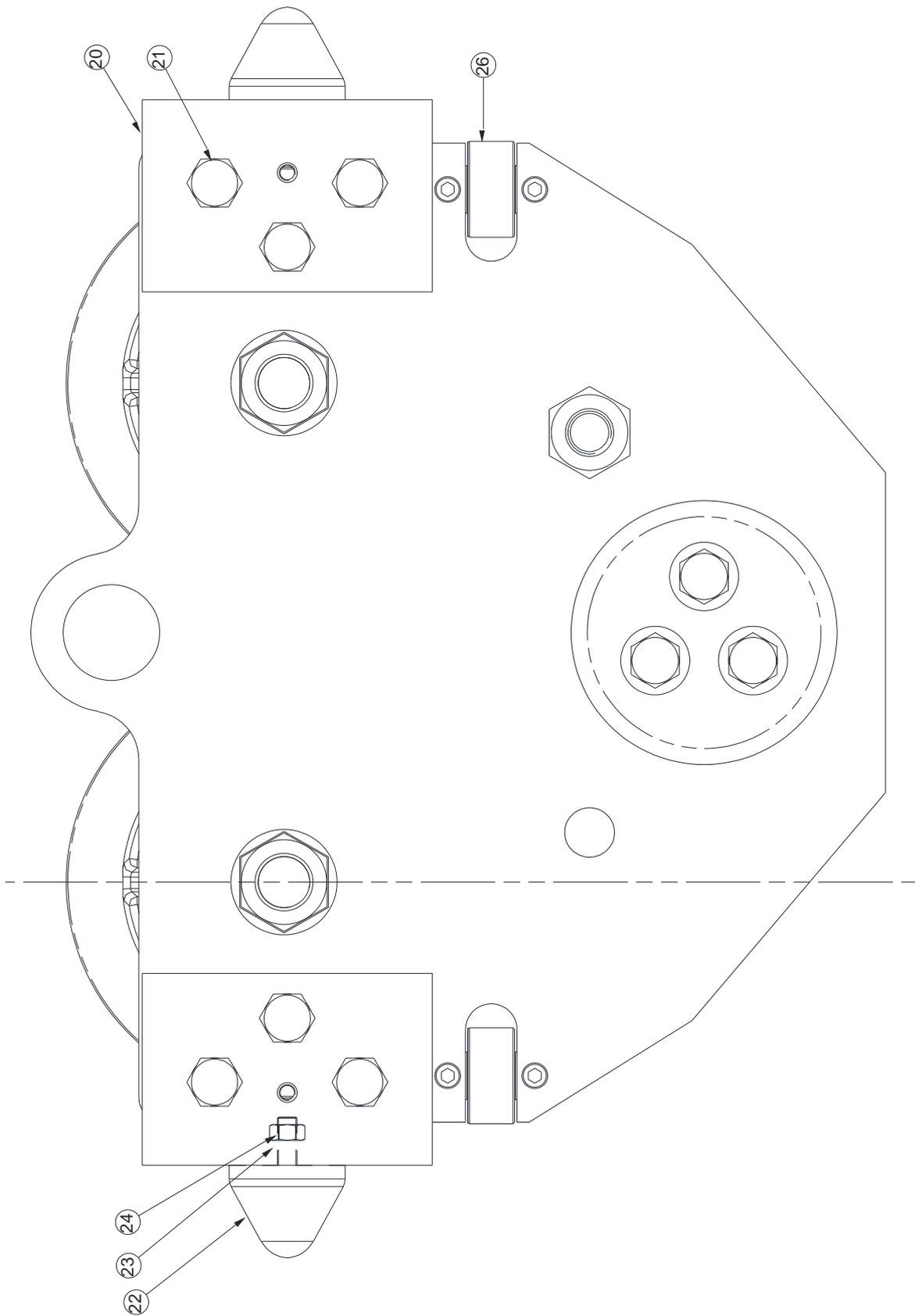
ITEM NO.	DESCRIPTION OF PART	TOTAL QTY	PART NUMBER
1	Distance Ring	1	96490215
2	Shaft	1	96490214
3	Flange	1	96490213
4	Sun Gear	1	96490143
5	Motor Flange	1	96300009
6	Brake Cover	1	96300008
7	Brake Housing	1	96300006
8	Disc Brake Housing	1	96300005
9	Distance Ring	1	96110012
10	Brake Piston	1	96110010
11	Spring	12	69192232
12	Hydraulic Motor OMR80	1	64000107
13	Steel Disc	8	63092432
14	Friction Disc	9	63092332
15	Key	1	60206224
16	Back-up Ring	1	58231629
17	Back-up Ring	1	58231529
18	'O' Ring	1	58231429
19	'O' Ring	1	58231329
20	Oil Seal	1	58014030
21	Retainer Ring	1	47703062
22	Washer	1	45701008
23	Lockwasher	2	45100212
24	Lock Washer	3	45100210
25	Cap Screw	3	41323206
26	Cap Screw	6	41321506
27	Cap Screw	6	41313506
28	Cap Screw	1	41301306
29	Screw	2	41015401
30	Ball bearing 6206-2rs	1	50150006

Recommended Spare

PLAIN TROLLEY 25 T - TR2U250-PE0MT1-PN-4040792 (DRAWING)



PLAIN TROLLEY 25 T - TR2U250-PE0MT1-PN-4040792 (DRAWING)



PLAIN TROLLEY 25 T - TR2U250-PE0MT1-PN-4040792 (PART LIST)

49	8	41323306	38631990	Screw CHc M10 x 60
48	4	96490002	38787255	Roller Axle
32	8	45201010	38634226	Lockwasher
28	1	9649-0858	47668503002	THREADED ROD (HDG) (FER L330)
26	4	96490003	38787263	Roller
25	4	96490181	38788097	Galet lisse laiton - Fer type IPE
24	4	43003611	38540662	Nut M12
23	4	45201012	38540696	Lockwasher
22	4	69886832	38654794	Bumper
21	12	41001401	38629895	Screw M20x50
20	4	96490119	38787412	Stop Fall
18	1	96490859	47668503003	DISTANCE RING 100 MM
17	4	47703110	38635835	Retainer Ring I110
16	4	47700060	38534327	Retainer Ring E60
15	8	50150012	38636940	Ball Bearing
14	4	43008411	38780003	Locknut PAL M36
13	4	43007411	38633186	Nut H M36
12	4	45000136	38566295	Washer M36
11	4	96490004	38787271	Wheel Axle
10	4	43006711	38633152	Nut
9	6	41022901	38748083	Screw M20x70
8	18	45201020	38541611	Lockwasher W20 - EZ
6	2	96490008	38787313	Cap
5	2	96490010	38787339	Flasque
3	8	96490021	38787404	Distance Ring 27.5mm
2	14	96490001	38787248	Distance Ring 5mm
1	1	9649-0857	47668503001	AXE DE LIAISON (FER L330)
ITEM	QTY.	PART NO.	CCN NO.	DESCRIPTION

PARTS ORDERING INFORMATION

The use of replacement parts other than INGERSOLL-RAND Material Handling will invalidate the Company's warranty. For prompt service and genuine INGERSOLL-RAND Material Handling parts, provide your nearest Distributor with the following :

1. Complete model number and serial number as it appears on the nameplate.
2. Part number and part description as shown in this manual.
3. Quantity required.

For your convenience and future reference it is recommended that the following information be recorded.

Hoist Model Number

Hoist Serial Number

Date Purchased

Return Goods Policy

INGERSOLL-RAND will not accept returned goods for warranty or service unless prior arrangements have been made and written authorization has been provided from the location the goods were purchased.

NOTICE

- **Continuing improvement and advancement of design may cause changes to this trolley which are not included in this manual. Manuals are periodically revised to incorporate changes. Always check the manual edition number on the front cover for the latest issue.**

When the life of the trolley has expired, it is recommended that the trolley be disassembled, degreased and parts separated as to materials so that they may be recycled.

For additional information contact :

INGERSOLL-RAND Material Handling
529, avenue Roger Salengro
59450 Sin-le-Noble - France
Phone : (33) 27-93-08-08
Fax : (33) 27-93-08-00

NOTICE

- **Mineral based oils are recyclable, however, some oils such as glycols may be extremely toxic and must be identified and disposed of at an approved waste or disposal site in accordance with all local, state and federal laws and regulations.**

IMPORTANT NOTICE

It is our policy to promote safe delivery of all orders. This shipment has been thoroughly checked, packed and inspected before leaving our plant and receipt for it in good condition has been received from the carrier. Any loss or damage which occurs to this shipment while enroute is not to any action or conduct of the manufacturer.

Visible loss or damage

If any of the goods called for on the bill of lading or express receipt are damaged or the quantity is short, do not accept them until the freight or express agent makes an appropriate notation on your freight bill or express receipt.

Concealed loss or damage

When a shipment has been delivered to you in apparent good condition, but upon opening the crate or container, loss or damage has taken place while in transit, notify the carrier's agent immediately.

Damage claims

You must file claims for damage with the carrier. It is the transportation company's responsibility to reimburse you for repair or replacement of goods damaged in shipment. Claims for loss or damage in shipment must not be deducted from the INGERSOLL-RAND invoice, nor should payment of

INGERSOLL-RAND invoice be withheld awaiting adjustment of such claims as the carrier guarantees safe delivery. You may return products damaged in shipment to us for repair, which services will be for your account and form your basis for claim against the carrier

GUARANTEE

See our general conditions of sales mentioned on our proposal, acknowledgement receipt, invoice.

INGERSOLL-RAND guarantees the equipment sold and supplied by itself against any defect or flaw in manufacture or operation under the conditions and within the limits hereafter.

- the guarantee is only valid if the customer has satisfied the general obligations of the present contract and, in particular, of settlement.

- the guarantee is strictly limited to INGERSOLL-RAND equipment. It does not extend to supplies and accessories which are not of its manufacture.

- the guarantee does not extend to assemblies or machines in which INGERSOLL-RAND equipment is incorporated and in particular to the performances of these assemblies or machines.

- when INGERSOLL-RAND equipment is incorporated into one or other assembly or machine by the customer, he alone is responsible for the adaptation, the choice and the suitability of the INGERSOLL-RAND equipment, INGERSOLL-RAND's diagrams, surveys and layouts being given only for guidance, unless there is a special stipulation in the acceptance of order, defined in the acknowledgment of receipt.

- INGERSOLL-RAND does not guarantee components and accessories it does not sell.

Defects in fitting, adaptation, design, connection and running of the assembly or part of the assembly put together by the customer are not covered by the guarantee. INGERSOLL-RAND equipment and material as well as the assemblies or machines set up by the customer or by a third party are assumed to be operated and used under the sole control of the customer or third party.

- The duration of the guarantee is for 6 months from the start up of the equipment by the customer. The start up must be made at the latest three months after dispatch of the equipment or its being made available.

- INGERSOLL-RAND has the right to demand from its customer proof of the date of start up.

- The guarantee period is reduced to half if the equipment is used day and night.

- The length of guarantee is neither prolonged nor interrupted by either amicable or litigious claims by the customer.

- At the expiry of this period, the guarantee ceases incontestably.

- The obligations of the INGERSOLL-RAND guarantee will only come into effect if the customer proves that the defect or flaw appeared during normal operating conditions

for this type of material, or in the course of normal use as specified by INGERSOLL-RAND.

- It does not apply in the event of user's mistake, negligence, imprudence, faulty superintendence or maintenance, inattention to the instructions or directions for use of low quality lubricants.

INGERSOLL-RAND' liability is disclaimed for all damage brought about by loss or leaks of oil.

- No guarantee applies either for fortuitous incidents or force majeure, or for wear, replacements or repairs caused by normal use of the equipment.

- The guarantee is restricted to reconditioning in INGERSOLL-RAND's premises at its expense and as soon as possible the equipment and parts recognized as faulty by its technical or after sales services, which are sent carriage paid and packing free, without there being any claim for damage arising, such as injury to personnel, damage to property other than that covered by the present contract, loss of possession, of production, commercial detriment or loss of profit.

- During the guarantee period, the cost of labour for dismantling and reassembling equipment outside INGERSOLL-RAND's premises, the cost of moving faulty, replaced or repaired equipment and the travelling and living expenses of INGERSOLL-RAND's engineers are covered exclusively by the customer.

- In order to obtain the advantages of the guarantee, the customer must advise INGERSOLL-RAND without delay and in writing of the defects and flaws in his equipment of which he is complained and furnish proof of their genuine nature. He must give INGERSOLL-RAND or its agents or technicians every facility to verify the defects or flaws and to put them right.

- The guarantee does not apply if the equipment is returned to INGERSOLL-RAND in a condition other than in which it broke down or if the seal has been removed, or if it has been dismantled, repaired or modified by a third party, or by the user or the customer.

- After having been duly informed of the defect or flaw in its equipment, INGERSOLL-RAND will put it right as quickly as possible, reserving the right, in certain cases, to modify the whole or part of the equipment so as to meet its obligations.

- The customer agrees that INGERSOLL-RAND will not be responsible for damage in the event that the customer has not fulfilled one or other of the obligations set out above.

- Parts replaced free of charge remain the property of INGERSOLL-RAND.

- The guarantee does not apply to wearing parts.

United States Office Locations

For Order Entry and Order Status :

**Ingersoll-Rand
Distribution Center**
P.O. Box 618
510 Hester Drive
White House, TN 37188
Phone: (615) 672-0321
Telex: 786573
Fax: (615) 672-0801

For Technical Support:

**Ingersoll-Rand
Material Handling**
P.O. Box 24046
2724 Sixth Avenue South
Seattle, WA 98124-0046
Phone: (206) 624-0466
Telex: 328795
Fax: (206) 624-6265

Regional Sales Offices

Atlanta, GA

111 Ingersoll-Rand Drive
Chamblee, GA 30341
Phone: (404) 936-6230

Detroit, MI

23192 Commerce Drive
Farmington Hills, MI 48335
Phone: (313) 476-6677
Fax: (313) 476-6670

Houston, TX

Suite 150
2500 East T.C. Jester
Houston, TX 77008
Phone: (713) 864-3700

Los Angeles, CA

5533 East Olympic Blvd.
Los Angeles, CA 90022
Phone: (213) 725-2826

Milwaukee, WI

12311 W Silver Sping Dr.
Milwaukee, WI 53225
Phone: (414) 461-0973

Philadelphia, PA

P.O. Box 425
900E. 8th Ave., Suite 103
King of Prussia, PA 19406
Phone: (215) 337-5930

International

Offices and distributors in principal cities throughout the world. Contact the nearest **Ingersoll-Rand** office for the name and address of the distributor in your country or write/fax to:

**Ingersoll-Rand
Material Handling**
P.O. Box 24046
2724 Sixth Avenue South
Seattle, WA 98124-0046
USA
Phone: (206) 624-0466
Telex: 328795
Fax: (206) 624-6265

Canada

**National Sales Office
Regional Warehouse
Toronto, Ontario**
51 Worcester Road
Rexdale, Ontario
M9W 4K2
Phone: (416) 675-5611
Fax: (416) 675-6920
Order Desk
Fax: (416) 674-6549

Regional Sales Offices

Calgary, Alberta
333 11th Avenue S.W.
Calgary, Alberta
T2R 0C7
Phone: (403) 261-8652

Edmonton, Alberta
1340 Weber Center
5555 Calgary Trail N.W.
Edmonton, Alberta
T6H 5G8
Phone: (403) 438-5039
Fax: (403) 437-3145

Montreal, Quebec
3501 St. Charles Blvd.
Kirkland, Quebec
H9H 4S3
Phone: (514) 695-9040
Fax: (514) 695-0963

British Columbia
201-6351 Westminster Hwy
Richmond, B.C.
V7C 5C7
Phone: (604) 278-0459
Fax: (604) 278-2519

**Latin America Operations
Ingersoll-Rand
Production Equipment
Group**
730 N.W. 107 Avenue
Suite 300, Miami, FL
33172-3107
Phone: (305) 559-0500
Telex: 441617TLS UI
Fax: (305) 559-7505

**Europe, Middle East and
Africa
Ingersoll-Rand Equipements
de Production S.A.**
529, avenue Roger Salengro
59450 Sin le Noble, France
Phone: (33) 27.93.08.08
Fax: (33) 27.93.08.00

**Asia - Pacific Operations
Ingersoll-Rand (Japan) Ltd.**
Kowa Bldg. No. 17
2-7 Nishi-Azabu 1-chome
Minato-ku, Tokyo 106,
Japan
Phone: (03) 3403-0641/7
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