

# INSTRUCTIONS AND REPAIR PART LIST

## for

### SIZES TEH25A30, TEH50A60, TEH50A95 and TEH50A130

### ELECTRIC MOTOR DRIVEN TRACTOR

#### POWER SUPPLY

Make sure the voltage at the installation is the same as specified on the tag attached to the Tractor.

A Tractor for operation with 440 volt service **must** be reconnected before it can be used on 220 volts and vice versa. Both the motor and control connections must be changed. Refer to the wiring diagram on the motor nameplate when reconnecting the Motor; refer to diagram within the Brake Cover (38) when reconnecting the controls.

A Tractor connected for 220 volts is suitable for 208 volt service.

#### INSTALLATION

1. Mount the Trolley on the track, being sure to use an equal quantity of Washers (169) and Spacers (168) on each end of the Trolley Bracket Bolts (157) so that the Suspension Bolt (160) and Traction Adjusting Bolt (170) will be centralized between the Trolley Brackets (150). Refer to Table on page 10.
2. Be sure to slide the Suspension Bolt Collar (161) onto the Suspension Bolt (160) before passing the end of the Bolt through the mounting hole in the Motor Bracket (2).
3. Pass the end of the Traction Adjusting Bolt (170) through the mounting hole in the Motor Bracket

(2). In the following order, slide one Spring Seat (172), the Traction Adjusting Spring (171) and the other Spring Seat onto the Bolt. Retain them with Adjusting Bolt Nut (173). Apply and securely tighten the Suspension Bolt Nut (163).

4. Run the Adjusting Bolt Nut (173) onto the Adjusting Bolt until the Spring is compressed to approximately 6" (152 mm). Apply the Adjusting Bolt Lock Nut (174), but do not tighten until final adjustment. **Note:** Forcing the Drive Wheel excessively tight against the bottom of the track will decrease the life of the rubber tire and increase the loading on bearings. Compress the Spring only enough to prevent slippage of the Drive Wheel (5) on the track. Make final adjustment under actual operating conditions.
5. Adjust the brake only if experience proves that the factory setting is unsatisfactory. To adjust: **Disconnect the power supply**, remove the Brake Cover (38) and loosen each of the three Adjusting Screw Lock Nuts (32). Rotate each Brake Adjusting Screw (31) an equal amount, turning them clockwise to increase the braking action, counterclockwise to decrease. Do not rotate the Screws more than one-half turn at a time, and not more than a total of 1½ turns in either direction from the factory setting.

#### HOW TO ORDER

Order all repair parts for your Ingersoll-Rand Tool by the **NAME** and **NUMBER** shown in the Repair Part List section. **Never** use the illustration numbers which appear in the first column.

For prompt service and genuine Ingersoll-Rand parts, place orders with the nearest Ingersoll-Rand Branch Office.

**Notice:** The use of other than genuine Ingersoll-Rand replacement parts may result in decreased tool performance and increased maintenance, and may, at the Company's option, invalidate all warranties.

Refer All Communications to the Nearest  
Ingersoll-Rand Branch Office or Distributor.

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## LUBRICATION

**Before operation:** Refer to Tag attached to Tractor.

**Semiannually:** Remove the Oil Level Plug (9) from the side of the Gear Case (6). If the oil is below the opening, remove the Vent Cap and add Ingersoll-Rand Extra Heavy Industrial Oil No. 55, or a non-emulsifying, non-detergent, rust-inhibited oil such as Socony-Mobil DTE® Extra Heavy Turbine Oil or Humble-Esso Teresso® No. 65 Turbine Oil.

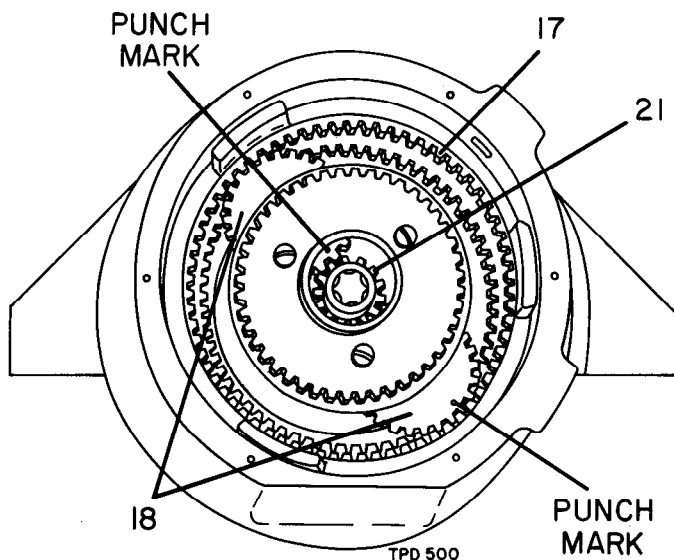
Remove each Trolley Wheel Assembly (155) from the Trolley Brackets (150). Remove the cover, snap ring and bearing from the wheel. Repack the bearing with Ingersoll-Rand Light Grease No. 28 or a good quality No. 2 cup grease.

**Annually:** Change the oil in the Gear Case. To drain out the old oil, disconnect the Tractor unit from its supporting Trolley Brackets (150), remove the Oil Level Plug (9), and rotate the unit until the oil level hole is at the bottom. After returning the Tractor to its normal position, remove the Vent Cap and fill the Gear Case to the level hole with Ingersoll-Rand Extra Heavy Industrial Oil No. 55 or its substitute (see preceding paragraph). Approximately  $\frac{2}{5}$  pint is required.

## MAINTENANCE

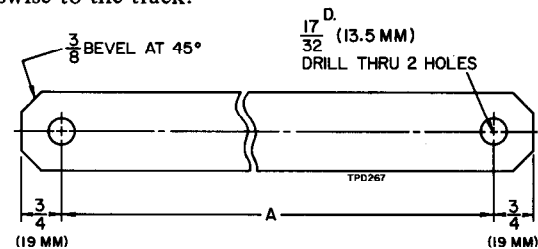
When disassembling the tractor gearing, remove the Brake Plate Key (10) from the gear case wall before attempting to withdraw the Internal Gear (17).

When installing the Gear Cage Assembly (18) in the Gear Case, note the punch marks and lines on each gear face, and position the gears as indicated in the accompanying view.



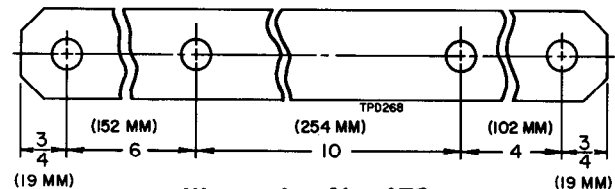
## DRAWBAR

The top view in the following illustration shows how to make a suitable drawbar, while the lower view illustrates a "universal" drawbar available from Ingersoll-Rand. The latter is long enough for practically any application, and the spacing of the holes is such that it can be cut to produce one or more intermediate length drawbars. In addition, a Drawbar with holes spaced 4" (102 mm) is available. This short Drawbar is satisfactory for connecting the Tractor to an Ingersoll-Rand Low Headroom Hoist, or a Standard Headroom Hoist when the Hoist is mounted with the rope drum crosswise to the track.



Use  $\frac{3}{8}$ " x  $1\frac{1}{2}$ " cold rolled steel. It is unnecessary to cut the corners if the unit is used only on straight track.

Dimension "A" must at least equal the distance between the centers of the drawbar pin hole in the clevis on the Tractor and the one on the hoist when the Tractor and hoist are as close as possible to each other on the track.

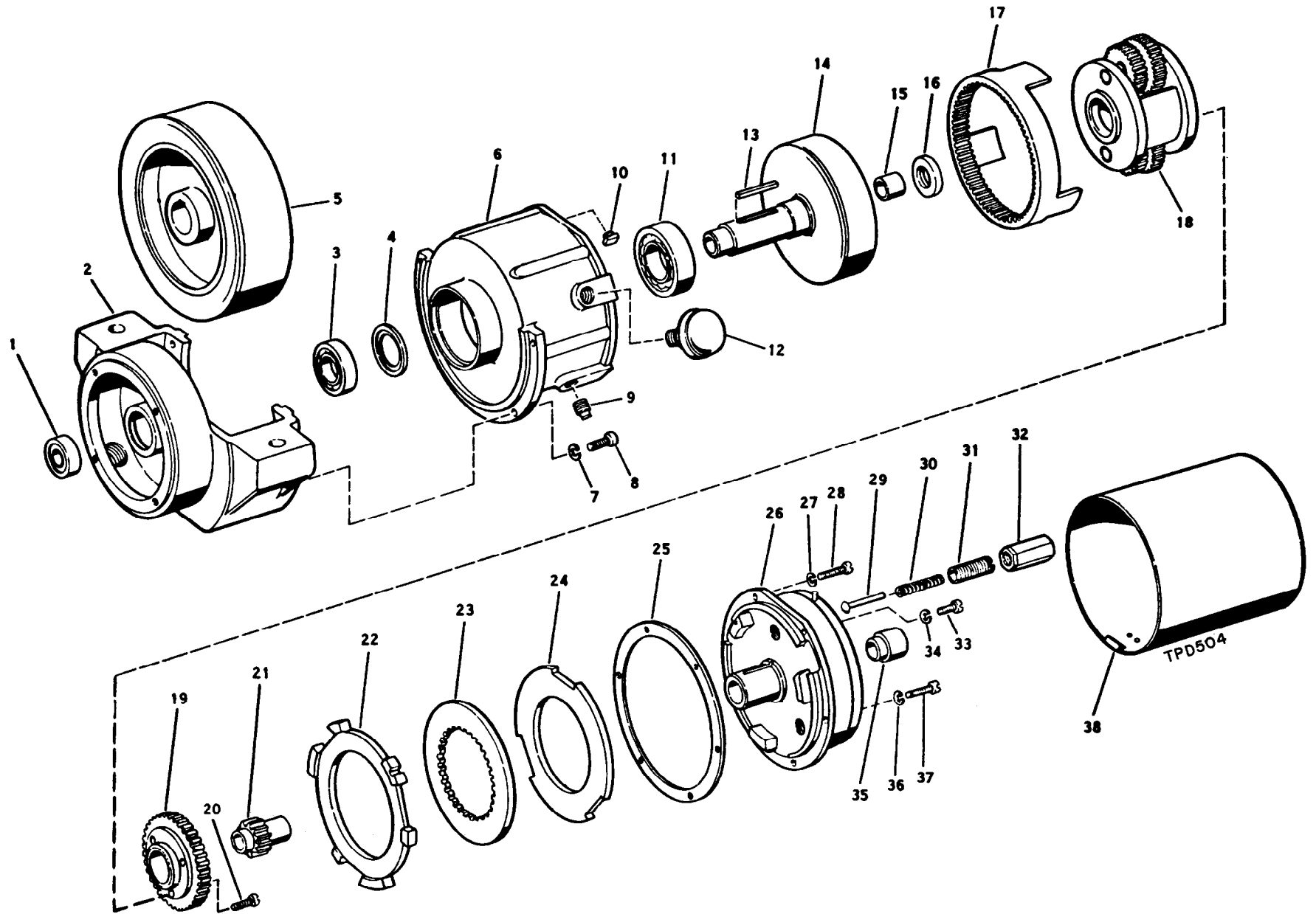


**Illustration No. 176**  
**No. TVH50A-704 Drawbar**

## TROLLEY BRACKETS

The current Trolley Bracket incorporates a Roller Bolt on which to mount each Guide Roller. This style Bracket requires different Rollers than the Brackets on which the Rollers are stud-mounted. Except that they require different Rollers, the two style Brackets are interchangeable and can be used in combination with each other if replacement of one Bracket is necessary.

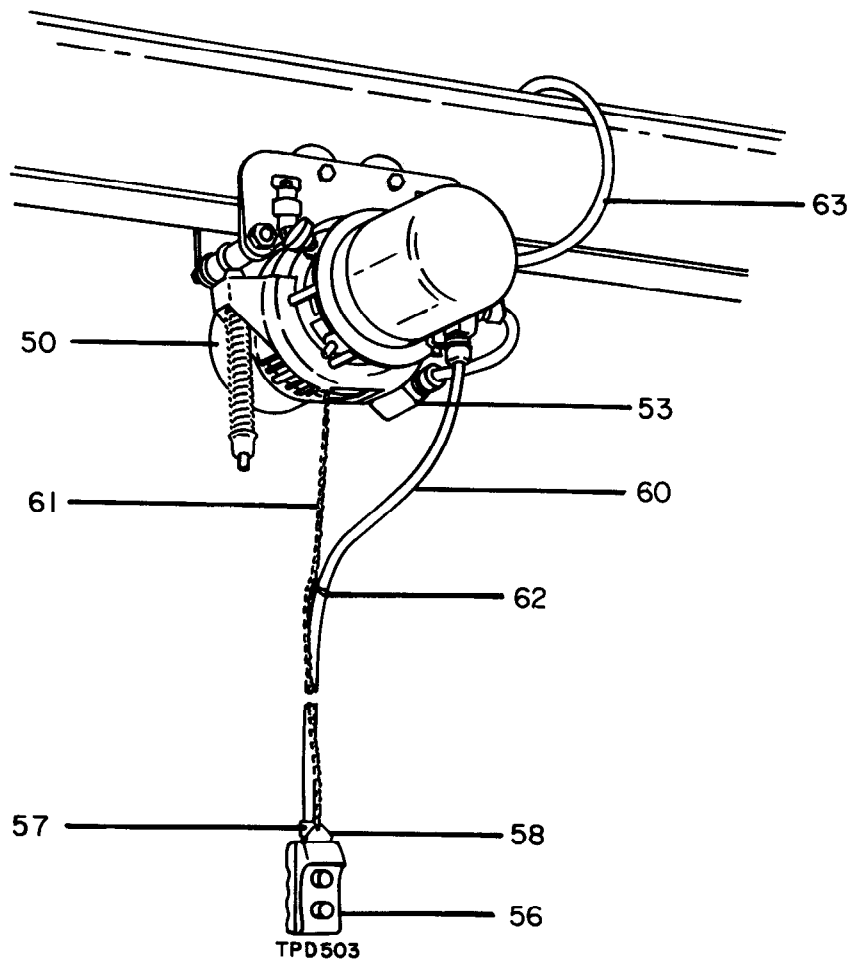
If the Guide Roller is bolt-mounted as illustrated, order Part Number TVH50A-719 for replacement. If it is stud-mounted, order Part Number TVH50A-719A. Illustrated Parts 152, 153 and 154 are not used with the stud-mounted style Bracket.



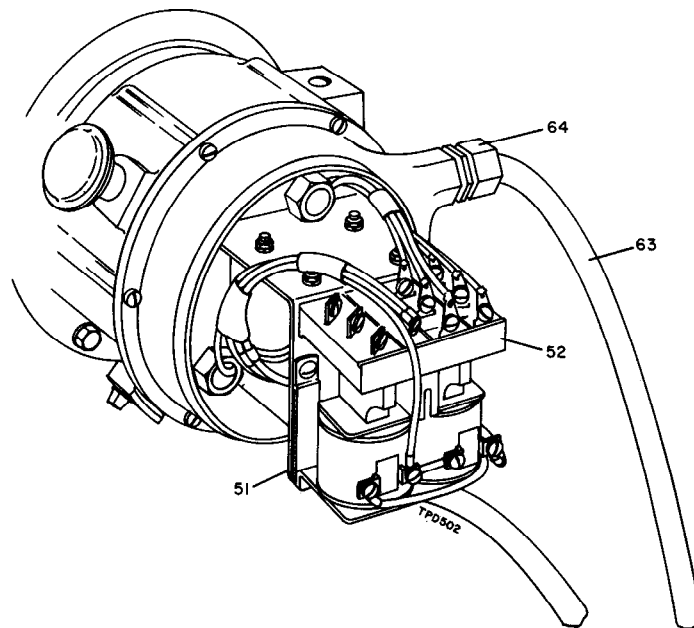
Main Tractor Parts

**MAIN TRACTOR PARTS**

<b>ILLUS. NUMBER (Do not use for ordering)</b>	<b>PART NAME FOR ORDERING (Parts indented after an item are included with that item)</b>	<b>PART NUMBER FOR ORDERING</b>	<b>ILLUS. NUMBER (Do not use for ordering)</b>	<b>PART NAME FOR ORDERING (Parts indented after an item are included with that item)</b>	<b>PART NUMBER FOR ORDERING</b>
1	Motor Bearing (AFBMA No. 17BC02JDD) . . . . .	R380-105	19	Rotating Disc Driver . . . . .	TVH50A-667
2	Motor Bracket . . . . .	TVH50A-650	20	Disc Driver Screw (3) (1/4"-20 thd. x 7/8" "Nylock" type) . . . . .	TVH50A-668
3	Wheel Gear Small Bearing (AFBMA No. 25BC02JDD) . . . . .	AM-318	21	Drive Shaft Pinion . . . . .	TVH50A-669
4	Wheel Bearing Spacer . . . . .	TVH50A-652	22	Brake Rear Plate . . . . .	TVH50A-670
5	Drive Wheel . . . . .	TVH50A-653	23	Brake Rotating Disc . . . . .	TVH50A-671
6	Gear Case . . . . .	TVH50A-654	24	Brake Front Plate . . . . .	TVH50A-672
7	Cap Screw Lock Washer (4) (1/4") . . . . .	L01-67	25	Brake Bracket Gasket. . . . .	TVH50A-673
8	Gear Case Cap Screw (4) (1/4"-20 thd. x 5/8") . . . . .	R2N-103	26	Brake Bracket . . . . .	TVH50A-682
9	Oil Level Plug (1/8" pipe plug) . . . . .	P250-368	27	Bracket Screw Lock Washer (5) (No. 10). . . . .	R2-320
10	Brake Plate Key . . . . .	TVH50A-658	28	Brake Bracket Short Screw (5)(No. 10-24 thd. x 1 3/4") . . . . .	TVH50A-688
11	Wheel Gear Large Bearing (New Departure No. RW507F or its equivalent) . . . . .	TVH50A-659	29	Brake Plunger (3) . . . . .	TVH50A-677
12	Vent Cap . . . . .	TVH50A-660	30	Brake Spring (3). . . . .	TVH50A-678
13	Drive Wheel Key. . . . .	TVH50A-661	31	Brake Adjusting Screw (3) . . . . .	TVH50A-679
14	Drive Gear Wheel Assembly For TEH25A30 (30 ft./min.) . . . . .	TEH25A30-A662	32	Adjusting Screw Lock Nut (3). . . . .	TVH50A-680
	For TEH50A60 (60 ft./min.) . . . . .	TEH50A60-A662	33	Control Mounting Screw (2) (1/4"-20 thd. x 5/8") . . . . .	TVH50A-681
	For TEH50A95 (95 ft./min.) . . . . .	TVH50A-A662	34	Mounting Screw Lock Washer (2) (1/4") . . . . .	L01-67
	For TEH50A130 (130 ft./min.) . . . . .	TEH50A130-A662	35	Bracket Cap . . . . .	TVH50A-683
15	Wheel Gear Bushing . . . . .	TVH50A-663	36	Bracket Screw Lock Washer (5) (No. 10). . . . .	R2-320
16	Wheel Gear Seal . . . . .	TVH50A-664	37	Brake Bracket Long Screw (No. 10-24 thd. x 1 3/4") . . . . .	TVH50A-676
17	Internal Gear . . . . .	TVH50A-665	38	Control Cover . . . . .	TEH50A-689
18	Gear Cage Assembly For TEH25A30 (30 ft./min.) . . . . .	TEH25A30-A666			
	For TEH50A60 (60 ft./min.) . . . . .	TEH50A60-A666			
	For TEH50A95 (95 ft./min.) . . . . .	TVH50A-A666			
	For TEH50A130 (130 ft./min.) . . . . .	TEH50A130-A666			



**Tractor Mounted on Track**

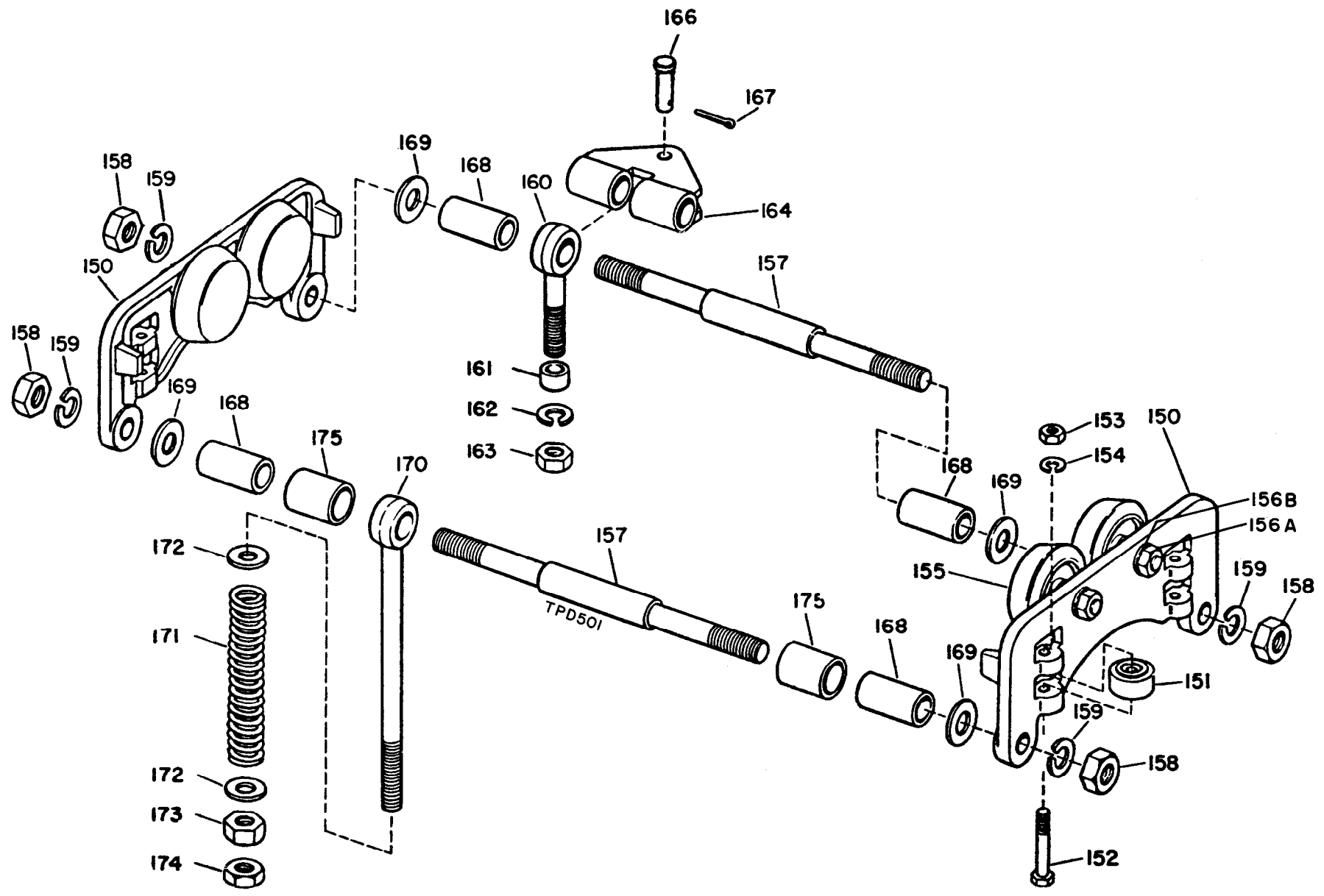


**Control End of Tractor With Cover Removed**

## ELECTRIC MOTOR AND CONTROL PARTS

ILLUSTRATION NUMBER (Do not use for ordering)	PART NAME FOR ORDERING  (Parts indented after an item are included with that item)	PART NUMBER FOR ORDERING
50	Electric Motor for TEH25A30. . . . .	TEH25A-275
	for TEH50A60, TEH50A95 or TEH50A130. . . . .	TEH50A-275
51	Transformer 208 - 220/440 volt - 24 volt . . . . .	TEH50A-79
	208 - 220/440 volt - 110 volt . . . . .	TEH50A-79-1
52	Reversing Contactor with 24 volt coil . . . . .	TEH50A-78
	with 110 volt coil . . . . .	TEH50A-78-1
*	Pipe Nipple . . . . .	AAM-286
53	Unilet. . . . .	TEH50A-284
*	Unilet Cover . . . . .	TEH50A-285
*	Unilet Solid Gasket . . . . .	TEH50A-286
	Pendent Station Assembly . . . . .	TEH50A-A269
56	Pendent Station . . . . .	TEH50A-B269
57	Pendent Control Cord Fitting (2) . . . . .	2EH20A-241
58	Pendent Station Hanger . . . . .	2EH20A-270
*	1/2" Conduit Lock Nut (2) . . . . .	2EH20A-180
60	Pendent Control Cord (length as specified) . . . . .	2EH20A-241
61	Pendent Control Chain (length as specified) . . . . .	DU-413
62	Cord Tie Strap (4). . . . .	HRE20A-283
63	Power Supply Cable (length as specified) . . . . .	HRE20A-B756
64	Power Supply Cable Fitting . . . . .	HRE20A-757
*	Coiled Kord™ (4 ft. contracted, 25 ft. extended). . . . .	2EH20A-757

\* Not illustrated.



Trolley Parts



## TROLLEY PARTS

ILLUS. NUMBER (Do not use for ordering)	PART NAME FOR ORDERING  (Parts indented after an item are included with that item)	PART NUMBER FOR ORDERING	ILLUS. NUMBER (Do not use for ordering)	PART NAME FOR ORDERING  (Parts indented after an item are included with that item)	PART NUMBER FOR ORDERING
†† 150	Trolley Bracket and Guide Roller Assembly . . . . .	TVH50A-690A	159	Bracket Bolt Lock Washer (4) (3/4") . . . . .	DU-563
†† 151	Guide Roller		160	Suspension Bolt . . . . .	TVH50A-699
	Standard (stud mounted) . . . . .	TVH50A-719A	161	Suspension Bolt Collar . . . . .	TVH50A-700
	Spark-Resistant (stud mounted) . . . . .	TVH50A-R719A	162	Suspension Bolt Lock Washer (5/8") . . . . .	A-67
*	Guide Roller Stud (for Spark-Resistant Trolleys) . . . . .	TVH50A-R719B	163	Suspension Bolt Nut (5/8"-11 thd.) . . . . .	HU-776
†† 151	Guide Roller (4) (2 required for use with each current style Bracket) . . . . .	TVH50A-719	164	Drawbar Clevis	
†† 152	Guide Roller Bolt (4) (2 required for use with each current style Bracket), . . . . .	HU-865		for all Flanges except 2.00", 2.66" and 3.00" Flanges . . . . .	TVH50A-703
†† 153	Roller Bolt Nut (4) (2 required for use with each current style Bracket) . . . . .	D02-418		for 2.00" (51 mm) Flange . . . . .	TVH50A-702
†† 154	Roller Bolt Lock Washer (4) (2 required for use with each current style Bracket) . . . . .	D02-321	166	for 2.66" (68 mm) Flange . . . . .	TVH50A-706
155	Trolley Wheel Assembly (4)		167	for 3.00" (76 mm) Flange . . . . .	TVH50A-701
	for operation on I-Beam or Richards Wilcox Tru-Tred Track		168	Drawbar Pin . . . . .	TVH50A-705
	Standard . . . . .	TVH50A-A691		Drawbar Pin Retainer (2) . . . . .	402-118
	Spark-Resistant . . . . .	TVH50A-AR691		Bracket Spacer (see Table on page 10)	
	for operation on Flat-tread Monorail or Wide Flange Beams		169	17/32" (13 mm) long . . . . .	TVH50A-747-17
	Standard . . . . .	TVH50A-A691T	170	1 1/16" (27 mm) long . . . . .	TVH50A-747-34
	Spark-Resistant . . . . .	TVH50A-AR691T	171	1 19/32" (40 mm) long . . . . .	TVH50A-747-51
*	Wheel Spacer (12) (not used with stud mounted Guide Roller and Bracket) . . . . .	23-725	172	2 1/8" (54 mm) long . . . . .	TVH50A-747-68
156A	Trolley Wheel Shaft Nut (1 for each Wheel) . . . . .	D02-418A	173	Plain Washer (see Table on page 10) . . . . .	21-748
156B	Trolley Wheel Lock Washer (1 for each Wheel) . . . . .	D10-322	174	Traction Adjusting Bolt . . . . .	TVH50A-713
157	Trolley Bracket Bolt (2) (see Table on page 10)		175	Traction Adjusting Spring . . . . .	TVH50A-715
	5 7/8" (149 mm) long . . . . .	TVH50A-746-5		Spring Seat (2) . . . . .	24-741
	7" (178 mm) long . . . . .	TVH50A-746-7	† 176	Adjusting Bolt Nut (5/8"-11 thd.) . . . . .	HU-776
	8" (203 mm) long . . . . .	TVH50A-746-8		Adjusting Bolt Lock Nut (5/8"-11 thd. Jam Nut) . . . . .	G7-18
	10 1/4" (260 mm) long . . . . .	TVH50A-746-10		Adjusting Bolt Spacer (2)	
	12 1/2" (318 mm) long . . . . .	TVH50A-746-12		1 21/32" (42 mm) long . . . . .	TVH50A-711
158	Bracket Bolt Nut (4) (3/4"-10 thd.) . . . . .	DU-562		1 1/32" (26 mm) long . . . . .	TVH50A-711-33
				1 7/16" (37 mm) long . . . . .	TVH50A-711-46
				1 17/32" (39 mm) long . . . . .	TVH50A-711-49
				Drawbar	
				Universal Type . . . . .	TVH50A-704
				with 4" (102 mm) hole spacing . . . . .	TVH50A-704-4

\* Not illustrated.

† Refer to DRAWBAR on page 3.

†† Refer to TROLLEY BRACKETS on page 3.

**TROLLEY BRACKET BOLTS (157), BRACKET SPACERS (168) AND PLAIN WASHERS (169) REQUIRED FOR MOUNTING A TRACTOR ON VARIOUS TRACKS**

**FOR I-BEAMS**

Flange Width		Trolley Bracket Bolt Length		Spacers			Washers, Quantity
				Length		Quantity	
in.	mm	in.	mm	in.	mm		
3.33	85	8	203	----	----	----	----
3.66	93	8	203	----	----	----	4
4.00	102	8	203	----	----	----	12
4.66	118	10 <sup>1</sup> / <sub>4</sub>	260	17/32	13	4	4
5.00	127	10 <sup>1</sup> / <sub>4</sub>	260	17/32	13	4	12
5.50	140	10 <sup>1</sup> / <sub>4</sub>	260	17/32	13	4	16
6.00	152	10 <sup>1</sup> / <sub>4</sub>	260	17/32	13	4	24
6.25	159	10 <sup>1</sup> / <sub>4</sub>	260	17/32	13	4	36
7.00	178	12 <sup>1</sup> / <sub>2</sub>	318	1 <sup>19</sup> / <sub>32</sub>	40	4	8

**FOR FLAT-TREAD MONORAILS**

Flange Width of Monorail		Trolley Bracket Bolt Length		Spacers			Washers, Quantity
				Length		Quantity	
in.	mm	in.	mm	in.	mm		
3.25 to 3.33	82 to 85	8	203	----	----	----	----
4.00 to 4.06	102 to 103	8	203	----	----	----	12
4.50	114	8	203	17/32	13	4	----

**FOR WIDE FLANGE BEAMS**

Flange Width		Trolley Bracket Bolt Length		Spacers			Washers, Quantity
				Length		Quantity	
in.	mm	in.	mm	in.	mm		
5.25	133	10 <sup>1</sup> / <sub>4</sub>	260	17/32	13	4	16
5.75	146	10 <sup>1</sup> / <sub>4</sub>	260	1 <sup>1</sup> / <sub>16</sub>	27	4	4
6.50	165	12 <sup>1</sup> / <sub>2</sub>	318	1 <sup>19</sup> / <sub>32</sub>	40	4	----
6.75	171	12 <sup>1</sup> / <sub>2</sub>	318	1 <sup>19</sup> / <sub>32</sub>	40	4	4
7.00	178	12 <sup>1</sup> / <sub>2</sub>	318	1 <sup>19</sup> / <sub>32</sub>	40	4	18
7.50	191	12 <sup>1</sup> / <sub>2</sub>	318	1 <sup>19</sup> / <sub>32</sub>	40	4	16
8.25	210	12 <sup>1</sup> / <sub>2</sub>	318	2 <sup>1</sup> / <sub>8</sub>	54	4	12
9.00	229	12 <sup>1</sup> / <sub>2</sub>	318	2 <sup>1</sup> / <sub>8</sub>	54	4	24



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● **Surinam, Paramaribo**  
Surinam Machinery Co., Ltd.  
P. O. Box 1808

● **Uruguay, Montevideo**  
General Electric, S. A.  
Casilla de Correo 360

● **Venezuela, Caracas**  
Ingersoll-Rand de Venezuela S.A.  
Apartado 70588, Los Ruices

## EUROPE

● **Austria 1111, Vienna**  
Ingersoll-Rand Ges M. B. H.  
P. O. Box 76

● **Belgium, B-1920 Diegem**  
Ingersoll-Rand Benelux  
Kouterstraat 10-12

● **Cyprus, Nicosia**  
N. P. Lantitis Co., Ltd.  
P.O. Box 1696

● **Denmark, Albertslund, DK 2620**  
Ingersoll-Rand AB  
Herstedvang 11

● **England, London, SW1X 7LU**  
Ingersoll-Rand Co., Ltd.  
Bowater House  
Knightsbridge

● **Scotland, Glasgow S.1**  
Ingersoll-Rand Co., Ltd.  
21 Shawland Arcade

● **Finland, Helsinki**  
Oy Polytrade AB  
Hällönnagatan 20C

● **Finland, Tampere**  
Rotator Oy  
Hatanpaanvaltatie 38

● **France, Boulogne-Billancourt (Seine)**  
Compagnie Ingersoll-Rand  
19/29 Rue du General Gallieni

● **Greece, Athens**  
"ATE" Avras S. A. I. C.  
P. O. Box 1250 Omonia

● **Germany, 403 Ratingen**  
Ingersoll-Rand GmbH  
Robt. Zapp Str.  
Postfach 1380

## EUROPE (Continued)

● **Iceland, Reykjavik**  
Elding Trading Co. Inc.  
Hafnarhvoli-Tryggvagotou

● **Ireland, Dublin 12**  
Ingersoll-Rand Company (Ireland) Ltd.  
John F. Kennedy Drive  
Bluebell

● **Italy, 20060 Vignate-Milano**  
Ingersoll-Rand Italiana, S.p.A.  
Casella Postale 1232

● **Netherlands, Pynacker**  
Ingersoll-Rand Benelux  
26D Delftsestraatweg

● **Norway, Oslo 1**  
Maskin a/s K. Lund & Co.  
Revierstredet 3

● **Portugal, Lisbon**  
Ingersoll-Rand Lda.  
Apartado 2933

● **Spain, Madrid**  
Cia. Ingersoll-Rand S. A.  
Apartado 518

● **Sweden, 25 Bromma 1**  
Ingersoll-Rand AB  
Fack, S-161

● **Switzerland, Zurich CH-8023**  
Robert Aebi S. A.  
P.O. Box 2034

● **Turkey, Istanbul**  
Hamamcioglu Muesseseleri Ticaret  
T.A.S.  
P. O. Box Siali 283

● **Yugoslavia, Zagreb**  
Brodoherkur  
Jurisicera 2/II

## AUSTRALASIA

● **Victoria, South Melbourne 3205**  
Ingersoll-Rand (Australia) Ltd.  
42 Moray Street

● **New South Wales 2065, Sydney**  
Ingersoll-Rand (Australia) Ltd.  
P. O. Box 328 Crows Nest

● **West Australia, Perth**  
Ingersoll-Rand (Australia) Ltd.  
P. O. Box 209 Cloverdale W. A. 6105

● **Queensland 4105**  
Ingersoll-Rand (Australia) Ltd.  
c/o P.O.—Moorooka, Queensland

● **South Australia, 5001 Adelaide**  
Ingersoll-Rand (Australia) Ltd.  
P. O. Box 178-C GPO

● **Tasmania, 7001 Hobart**  
Ingersoll-Rand (Australia) Ltd.  
G.P.O. Box 564-F

● **New Zealand, Auckland**  
The Fletcher Steel and Engineering  
Companies, Ltd.  
Great South Road, Penrose

## CENTRAL AMERICA and the WEST INDIES

● **Costa Rica, San Jose**  
H. T. Purdy, Inc.  
Apartado 750

● **Dominican Republic, Santo Domingo**  
Dominican Motors C por A  
Apartado 894

● **Guatemala, Guatemala City**  
Cia. Guatemalteca de Maquinaria, S. A.  
Apartado 1363

● **Haiti, Port-au-Prince**  
Charles Fequiere & Cia.  
P. O. Box 398

● **Honduras, Tegucigalpa, D. C.**  
Distribuidores de Repuestos, S. A.  
Apartado Postal No. 46

● **Jamaica, Kingston**  
R. Ehrenstein & Co., Ltd.  
P. O. Box 414

● **Netherlands West Indies, Curacao**  
S. E. L. Maduro & Son, Inc.  
P.O. Box 304

● **Nicaragua, Managua D. N.**  
Equipos y Accesorios S. A.  
Apartado 2010

● **Puerto Rico, San Juan 00936**  
Ingersoll-Rand de Puerto Rico Inc.  
P. O. Box 1222

● **Iran, Tehran**  
Shaya Company Ltd.  
P. O. Box 155

● **Iran, Tehran**  
Diesel Power Trading Co. Ltd.  
P. O. Box 1434

● **Israel, Tel-Aviv**  
Engineering & Mfg. Co. Ltd.  
7 Rothschild Blvd., P. O. Box 1191

● **Japan 107, Tokyo**  
Ingersoll-Rand (Japan) Ltd.  
Sumitomo Akasaka Bldg., 6th Floor  
3-3, 3 Chome, Akasaka  
Minato-Ku

● **Jordan, Amman**  
Industrial Supplies Co.  
P. O. Box 108

● **Korea, Seoul**  
Mine and Construction Equipment Co.  
I. P. O. Box 2916

● **Kuwait, State of Kuwait**  
Trading & Industrial Equip. Co.  
P. O. Box 2159

● **Lebanon, Beirut**  
Mideast Auto & Trading Co.  
P. O. Box 4766

● **Malaysia, Petaling Jaya**  
Ingersoll-Rand South East Asia (Pte) Ltd.  
No. 2 Jalan 215  
Selangor

● **Okinawa, Ryukyu Island**  
The China Engineers Ltd.  
Construction Equipment Div.  
C. P. O. Box 30, Naha

● **Pakistan, Karachi**  
Javed Ltd.  
19 W. Wharf Rd., P. O. Box 5191

## CENTRAL AMERICA and the WEST INDIES (Continued)

● **Republic of Panama, Panama**  
Distribuidora Sonosate S. A.  
Apartado 10049

● **Salvador, San Salvador**  
Cia. Importadora de Maquinaria S.A.  
Calle Roosevelt y 53 Avenida

● **West Indies, Trinidad**  
Port-of-Spain  
Neal & Massy Ltd.  
P. O. Box 1298

## ASIA and The EAST

● **Abu-Dhabi (Arabian Gulf)**  
Al Nasr Trading Co.  
P. O. Box 983

● **Aden (So. Yemen)**  
Awad Salem Baobeid & Son  
P. O. Box 184

● **Afghanistan, Kabul**  
Indamer, Afghan Industries  
P. O. Box 37

● **Bahrain, Manama**  
Alawi Stores  
P. O. Box 154

● **Cambodia, Phnom-Penh**  
Mine and Construction Equipment Ltd.  
c/o China Engineers Ltd. P.O. Box 42  
Tauen Wan, Hong Kong

● **Ceylon, Colombo**  
C.I.A.S. Ltd.  
P. O. Box 610

● **Dubai, Deira (Arabian Gulf)**  
Al Nasr Trading Co.  
P. O. Box 1106

● **Hong Kong**  
China Engineers Ltd.  
P. O. Box 42 Tauen Wan

● **India, Bombay 18**  
Ingersoll-Rand (India) Private Ltd.  
P. O. Box 16564, Worli

● **India, Calcutta**  
Ingersoll-Rand (India) Private Ltd.  
7 Welsley Pl., P. O. Box 2307

● **Indonesia, Bandung**  
P. T. Kiagoos Trading & Ind. Co.  
28-30 Djalan Karyawan

● **Indonesia, Jakarta**  
P. T. Kiagoos Trading & Ind. Co.  
P. O. Box 2107

● **Indonesia, Palembang**  
P. T. Kiagoos Trading & Ind. Co.  
Djil Djend  
Sudirman Km 4

● **Iran, Tehran**  
Shaya Company Ltd.  
P. O. Box 155

● **Iran, Tehran**  
Diesel Power Trading Co. Ltd.  
P. O. Box 1434

● **Israel, Tel-Aviv**  
Engineering & Mfg. Co. Ltd.  
7 Rothschild Blvd., P. O. Box 1191

● **Japan 107, Tokyo**  
Ingersoll-Rand (Japan) Ltd.  
Sumitomo Akasaka Bldg., 6th Floor  
3-3, 3 Chome, Akasaka  
Minato-Ku

● **Jordan, Amman**  
Industrial Supplies Co.  
P. O. Box 108

● **Korea, Seoul**  
Mine and Construction Equipment Co.  
I. P. O. Box 2916

● **Kuwait, State of Kuwait**  
Trading & Industrial Equip. Co.  
P. O. Box 2159

● **Lebanon, Beirut**  
Mideast Auto & Trading Co.  
P. O. Box 4766

● **Malaysia, Petaling Jaya**  
Ingersoll-Rand South East Asia (Pte) Ltd.  
No. 2 Jalan 215  
Selangor

● **Okinawa, Ryukyu Island**  
The China Engineers Ltd.  
Construction Equipment Div.  
C. P. O. Box 30, Naha

● **Pakistan, Karachi**  
Javed Ltd.  
19 W. Wharf Rd., P. O. Box 5191

## ASIA and The EAST (Continued)

● **Philippines, Makati, Rizal D-708**  
Ingersoll-Rand Philippines, Inc.  
P. O. Box 445

● **Qatar, Doha**  
Dawiah & Co.  
P. O. Box 889

● **Saudi Arabia, Jeddah**  
Zahid Heavy Machinery Co., Ltd.  
P. O. Box 1588

● **Singapore 2**  
Ingersoll-Rand South East Asia (Pte) Ltd.  
No. 601, Maxwell House  
Maxwell Road

● **Syria, Damascus**  
Geo. R. Kaba  
19 Balkis St., P. O. Box 2205

● **Taiwan, Taipei**  
China Engineers Ltd.  
P. O. Box 1148

● **Thailand, Bangkok**  
Mine and Construction Equipment Ltd.  
P. O. Box 2775

● **S. Vietnam, Saigon**  
Construction Equipment Corp.  
P. O. Box 1224

## AFRICA

● **Republic of South Africa**  
Transvaal, Abode via Alberton

● **Ingersoll-Rand Co. So. Africa (Pty.) Ltd.**  
P. O. Box 3720

● **Cape Province, Capetown**  
Ingersoll-Rand Co. So. Africa (Pty.) Ltd.  
P. O. Box 21, Eppindust

● **Cape Province, Port Elizabeth**  
Ingersoll-Rand Co. South Africa (Pty.) Ltd.  
P. O. Box 1028

● **Cape Province, Kimberley**  
Ingersoll-Rand Co. So. Africa (Pty.) Ltd.  
P. O. Box 129

● **Natal, Durban**  
Ingersoll-Rand Co. So. Africa (Pty.) Ltd.  
P. O. Box 2595

● **Orange Free State, Welkom**  
P. O. Box 374

● **Angola, Luanda**  
META S. A. R. L.  
Caixa Postal 3175

● **Egypt, Cairo**  
The Tractor & Engineering Co., S.A.E.  
P. O. Box 366

● **Ethiopia, Addis Ababa**  
The Motor & Engineering Co. of Ethiopia Ltd  
P. O. Box 1767

● **Ghana, Accra**  
Cie Francaise de L'Afrique Occidentale  
P. O. Box 2710

● **Kenya, Nairobi**  
Giffilan & Co. Ltd.  
P. O. Box 30044

● **Libya, Tripoli**  
Hussein N. Sufrahi  
P. O. Box 3283

● **Morocco, Casablanca**  
Ingersoll-Rand Maroc  
Etablissements Pegary  
29 bis, Rue Mohamed Diouri  
Mauritius, Port Louis  
Blyth Brothers and Co. Ltd.  
P. O. Box 56

● **Nigeria, Apapa**  
Nigerian Motor Industries, Ltd.  
P. M. Bag 1032, 26 Wharf Road

● **Portuguese East Africa, Lourenco Marques**  
Santos Marques and Silva Limitada  
P. O. Box 166

● **Sierre Leone, Freetown**  
Cie Francaise de L'Afrique Occidentale  
P. O. Box 823

● **Senegal, Dakar**  
Compagnie Francaise de  
L'Afrique Occidentale

● **Sudan, Khartoum**  
Mahgoub M. A. & Co. Ltd.  
P. O. Box 577

● **Tunisia, Tunis**  
Mine-Usine et Comptoir des Mines Reunis  
11, Avenue de Carthage

● **Zambia, Ndola**  
Ingersoll-Rand Company, Ltd.  
P. O. Box 74