Expect Service

Radiation Products Design Inc

MANUAL

RPD INFORMATION

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RPD PRODUCT INFORMATION

Item Number	Description
693-036	Hydraulic Scissors Lift Table, 23.75" x 36" (60.5 x 91.75 cm)
693-037	Hydraulic Scissors Lift Table, 27.75" x 36" (70.75 x 91.75 cm)

SPECIFICATIONS

Capacity: 1100 lb (500 kg)
Platform Lowered Height: 11.8" (30 cm)
Platform Raised Height: 36.6" (93.3 cm)
Vertical Travel: 24.8" (63.2 cm)
Handle Height: 37.8" (96.4 cm)
Front Casters: 5" rigid, rubber (12.75 cm)
Rear Casters: 5" swivel, rubber (12.75 cm)
Parking Brake: Yes
Platform Color: Off white
Frame Color: Blue

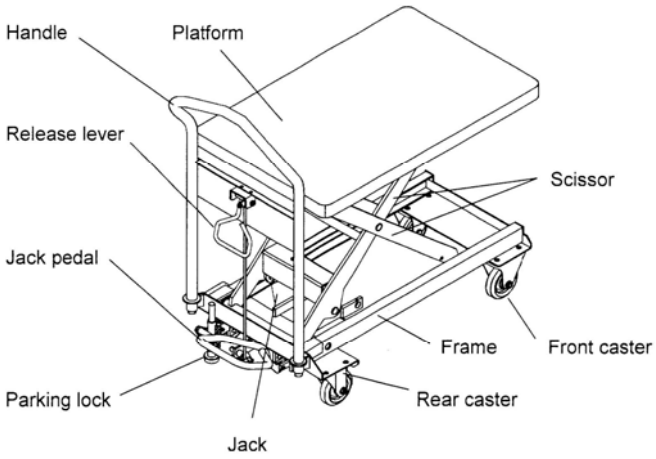


Figure 1

693-036 Hydraulic Scissors Lift Table, 23.75" x 36" (60.5 x 91.75 cm)
Platform Size: 23.6" W x 35.8" L (60.2 x 91.3 cm)
Overall Size: 23.6" W x 43" L (60.2 x 109.6 cm)
Weight: 193 lb (88 kg)

693-037 Hydraulic Scissors Lift Table, 27.75" x 36" (70.75 x 91.75 cm)
Platform Size: 27.6" W x 35.8" L (70.1 x 90.9 cm)
Overall Size: 27.6" W x 43" L (70.4 x 109.6 cm)
Weight: 203 lb (93 kg)

Specifications are subject to change without notice.

SAFETY GUIDES

The Hydraulic-Scissor Phantom Table is designed to provide safe operation. By following simple safety rules, the operator should be able to avoid injury to him and others and also avoid damage to the table, other equipment and structures.

In order to ensure safe and efficient use, the operator should fully familiarize himself with the contents of this manual prior to handling the unit. Refer to sticker labels for operational guidance.

Safety Guides

- Avoid rapid lowering of the platform while a load is on the platform. Rapid lowering with sudden stops could cause a large water phantom to burst.
- Never move the Hydraulic Lift Table when it is in the raised position.
- With a water tank on the hydraulic lift table, lower water level before moving to prevent splashing out of the water.
- Be extremely careful when going over ridges in the floor, such as tile to carpeting bumps.
- When moving over a dished-in treatment table base, cover dished-in area with 0.5" thick x 4'x 8' (1.28 x 122 x 244 cm) plywood.
- **DO NOT** over load the unit above the rated capacity.
- Prevent “side-loading” - make sure load is centered.
- Keep neighboring persons, other than the operator, away from the unit during operation. DO NOT ride on the table.

- **DO NOT** insert hand or foot between the scissors and the platform.
- During the loading or unloading operation, engage the parking brake.
- **DO NOT** raise or lower the platform on a sloped or tilted surface.
- **DO NOT** use the unit with irregular down speed. Adjusting lowering speed must be in accordance with page 6, Adjustment of Lowering Speed of the Platform.

For safe and efficient use of the unit lubrication and servicing is necessary. To maintain the initial function, lubrication to all required parts is necessary in accordance with page 8, Lubrication.

Maintenance and adjustment work must be performed while lift is not loaded. It is recommended to use an appropriate wood stop supports to avoid accidental lowering during maintenance (See Page 5, Inspection, Figure 6).

ASSEMBLY

Warning

- Assembly work must be done on a flat surface.
- Wheels must be blocked to prevent accidental rolling of the unit.

INSTALL HANDLE WITH LOWERING RELEASE LEVER ROD AND JACK PEDAL

- Fig.2 Remove the nuts and spring washers from the end of the handle. Insert the handle with lowering release lever rod into the handle holes. Tighten down the handle using the nuts and washers.
- Fig.3 Remove washer and R pin. Insert lowering lever rod onto crank shaft, then spring washer, insert R pin threw hole.
- Fig.4 Insert tapered end of jack pedal into pedal receiver.

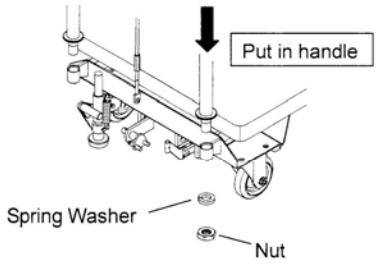


Figure 2

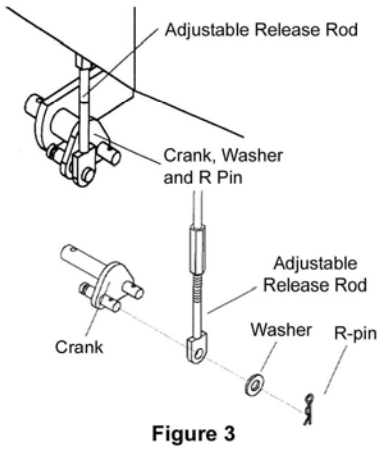


Figure 3

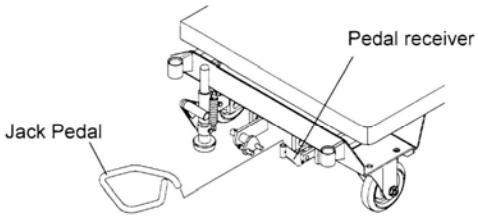


Figure 4

INSTALLING LEVELING LEGS

Thread the four leveling legs into the four corner adjustment blocks so thread is 3" (7.7 cm) above floor. Put Loctite on the last three threads of the threaded rod and screw on the leveling foot. Tighten leveling foot by holding with wrench and turning hand knob.

RAISING AND LOWERING PLATFORM

If air has entered the hydraulic jack during transportation or in storage, the platform may not raise evenly when the jack pedal is first pumped. In this case, pump the jack pedal about twenty times repeatedly and check to see that the platform rises properly (See Page 6, Adjustment**,** Up and Down Adjustment of Platform).

OPERATION

PROCEDURES

- Parking brake must be actuated during parking, lifting or lowering of the platform See Page 5, Adjustment, Adjusting the Parking Break Shoe).
- Center water phantom tank on the platform.
- The platform must be in the lowered position before the unit can be moved with a water tank on the platform.
- To level the platform in one location, screw down four leveling pads.
- Transfer water into plotting tank using the portable 60 gallon Water Transfer Tank with pump (Item 695-000).

RAISING AND LOWERING PLATFORM

To raise platform, pump jack pedal repeatedly (See Page 6 for Adjustment).

Warning

- Do not insert hand or foot between the platform and the frame.
- Lock parking brake.
- Avoid rapid lowering of the platform while there is a load on the platform. Rapid lowering with sudden stops could cause a large water phantom tank to burst.

To lower platform, pull lowering release lever out slowly. As soon as the platform starts down, do not pull the lever anymore - maintain as is. The platform will continue lowering smoothly. By pulling the lever more, lowering speed can be increased (See Page 6 for Adjustment).

Note - When a load is on the platform, pull lowering release lever only the minimum amount to prevent rapid decent of the platform. When the platform is empty, the lowering release lever can be pulled out fully.

To Maintain the Platform at an Intermediate Point

- The platform stops when pumping up pedal is stopped.
- When the lowering release lever is released, the platform stops lowering and will maintain that position.
- If the platform does not stop properly, adjustment must be made (See Page 6 for Adjustment).

MECHANICAL HEIGHT LOCK

To secure platform height and prevent lowering over an extended period of time do the following:

- Raise platform height 1" (2.5 cm) above desired height. Rotate mechanical height lock knob clockwise until it is tight against the cross arm. Lower platform so all weight is on the height lock.

To lower platform, turn mechanical height lock knob counterclockwise until the water tank is at the proper height.

Note - Tank water will evaporate over night.

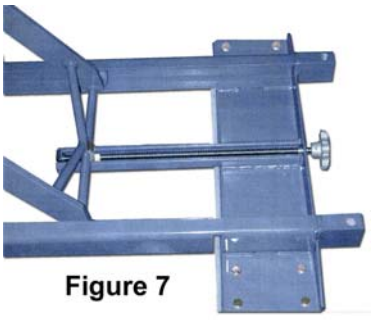


Figure 7

The Hydraulic Scissor Lift Table does not require special maintenance other than lubrication (See Page 8, Maintenance) and periodic inspection (see Page 5, Inspection).

INSPECTION

The Hydraulic Scissor Lift Table does not require special maintenance other than lubrication (See Page 8, Maintenance) and periodic inspection.

Inspection and maintenance should be made in accordance with the following procedure for smooth and efficient operation.

Warning

- Prior to use of the unit, check whether any damage, deformation or cracks on the body exist.
- During lubrication, inspection and maintenance, the platform must be empty.
- During table lubrication, inspection or maintenance work, raise the table up to maximum height and insert two maintenance wood stops (3/4" x 1 1/2 x 14") into the scissor guide and secure it to the frame using shipping tape (Fig. 2) or engage the mechanical height lock.

Remove any foreign material in scissor guide rail. Check lifting performance of the platform in accordance with provisions of operation.

- Lifting up performance
- Stopping performance at any desired height
- Lowering speed and performance

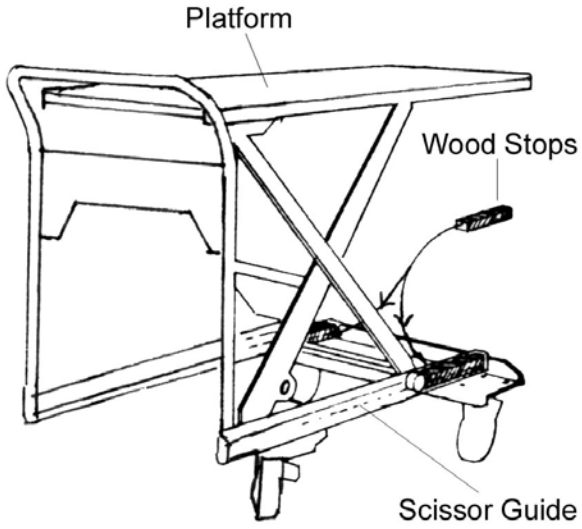


Figure 6

ADJUSTMENT

ADJUSTING THE PARKING BREAK SHOE

- Adjustment work must be done on a flat surface.
- Step down on the brake lever until it clicks engaging the brake.
- Screw the shoe down by rotating it in a counterclockwise direction so that it touches the floor.
- Step on the release lever to release the brake. Than rotate the shoe counterclockwise an additional two turns to provide firm contact with the floor. Use Loctite to secure in place..

Caution - Make sure the parking brake is set during lifting or parking of the unit.

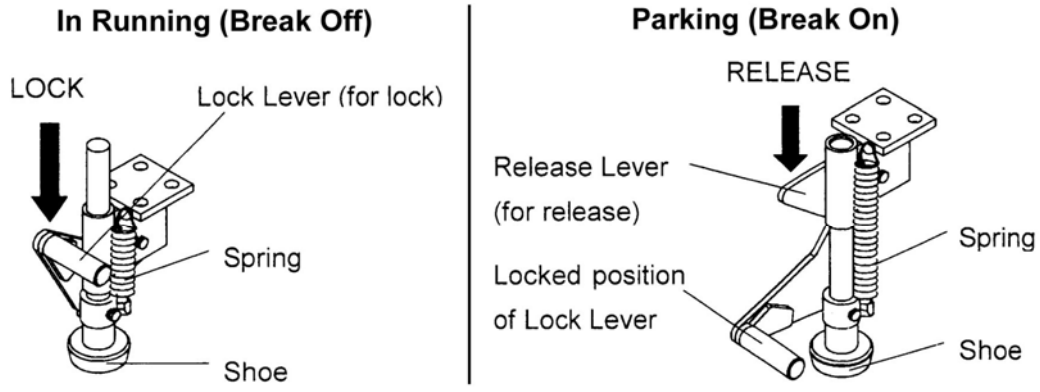


Figure 5

UP/DOWN ADJUSTMENT OF PLATFORM

If the platform does not lift up or hold in any position even while jack is pumped

1. **Make sure the lowering release lever is down all the way.**
2. **Bleed Air From jack**

   To bleed air from jack, pump for 30 seconds and repeat a few times, then let lift table sit for ten minutes. If air bubbles are not purged yet, repeat above adjustment once more.
3. **Jack valve will not close completely**

   The valve on the jack will not close. In this case, adjustment is required in accordance with the procedure below:

   Loosen nut on connecting Rod-1 and turn part (A) shown in Figure 8, in counterclockwise direction one turn, increasing length.

   Tighten the nut to prevent turning of part (A).

   Check for normal raising and lowering of the platform by pumping the jack.

   If the above adjustment does not result in normal operation, repeat once more.

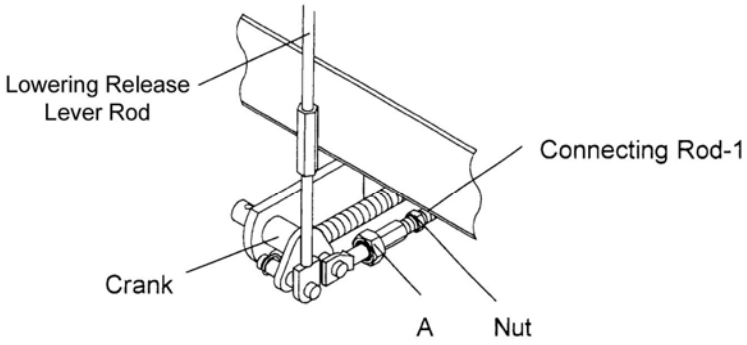


Figure 8

If the above adjustment does not result in normal operation, check for problem in other parts.

ADJUSTING LOWERING SPEED OF THE PLATFORM

When the lowering release lever is pulled out fully, the platform should lower from the maximum height to the lowest position in about twenty-five seconds with no load.

If the speed is abnormal, adjustment is required as follows:

- To increase lowering speed when the lowering release lever is pulled out fully, remove the adjustable release rod from the crank and rotate per Figure 9. After adjustment is completed, install washer and R-pin.
- To decrease lowering speed when the lowering release lever is pulled out fully, remove adjustable release rod from the crank and rotate per Figure 9. After adjustment is completed, install washer and R-pin.

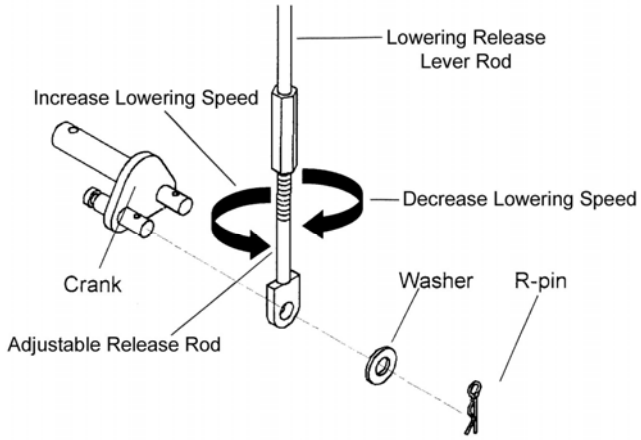


Figure 9

REPLACEMENT OF HYDRAULIC JACK

- Raise the table up to the maximum height and insert two maintenance wood stops (0.75" x 1.5" x 14") into the scissor guide rails and secure them to the frame using shipping tape (Fig. 6) or engage the mechanical height lock.
- Loosen and remove screw A (N2-5 P/N0218825) from the lift box (Fig. 10). Remove jack plate N2-5
- Disconnect connecting Rod-2 from Rod-3 by removing the 'R' pin (N8-11 P/N0340808) and washer from the end of connecting rod-2 of the lowering lever assembly (Fig. 11).
- Remove two mounting bolts (N5-5) washers and nuts that secure the jack to frame (Fig. 11).
- Press down on the jack pump piston (N5-1) by hand so that the jack will slip under the Lift Box (N2-1-2) (Fig. 11).
- Remove the jack through the rear of the lift (Fig. 12).
- Reinstall the jack through the rear of the lift (Fig. 12).
- Install two mounting bolts (N5-5) through the jack and the frame, secure with washers and nuts but leave them loose (Fig. 11).
- Reconnect connecting Rod-2 to Rod-3 by installing a washer and 'R' pin (N8-11 P/N0340808) into the end of connecting Rod-2 (Fig. 11).
- Pump Jack till piston engages into Lift Box (Fig. 10).
- Install screw A through the lift box into the jack plate (N2-5) (Fig. 10).
- Tighten the two mounting bolts securing the jack to the frame (N5-5) (Fig. 11).
- Remove the supports from the scissor guiderails and lower the platform to the lowest position or release the mechanical height lock.

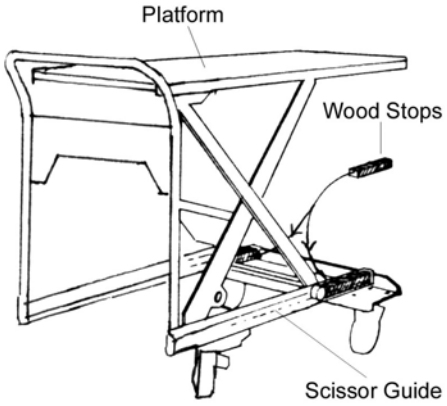


Figure 6

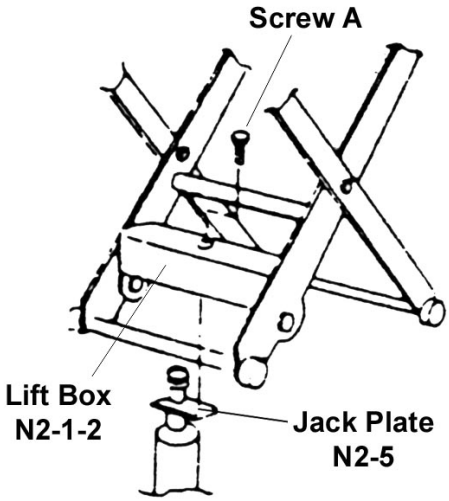
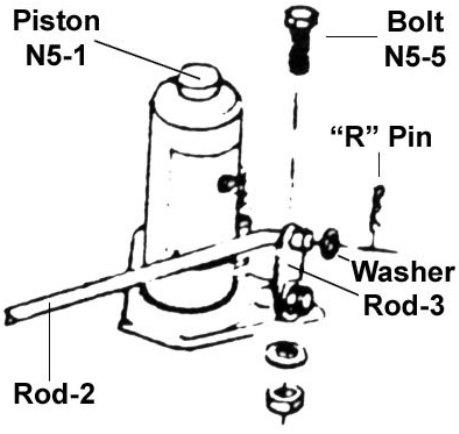


Figure 10



Hydraulic Jack
Figure 11

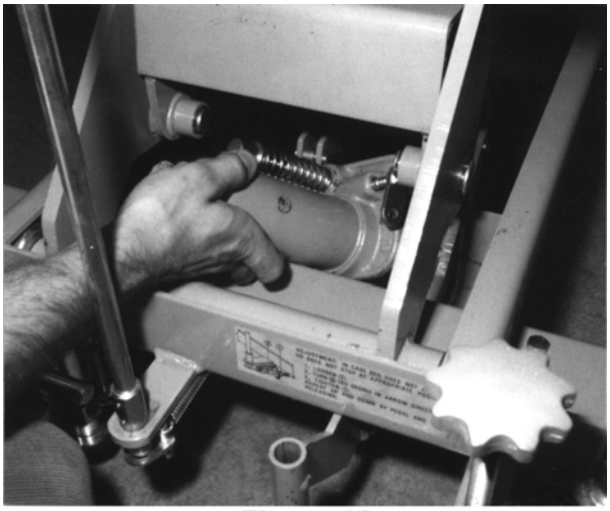


Figure 12

MAINTENANCE

LUBRICATION

Lubrication must be done in accordance with the following table:

Part	Lubrication Material	Figure – Item
Guide Rail (Platform)	Grease	N1
Guide Rail (Frame)	Grease	
Pump-Up Pedal	Grease/Grease Nipple	N9-14
Roller (for Jack Lever)	Grease	N9-13
Scissor-Pivot Pin	Machine Oil	N2-1-1
Lift Box Pin	Machine Oil	N2-1-2
Stay	Machine Oil	N2-4
Leveling Feet Screws	Grease Thread	N2-6
Parking Break	Machine Oil	N7
Lowering Lever (Moving Part)	Machine Oil	N8
Jack Oil	Hydraulic Jack Oil	N5

Refer to the Illustrated Parts List

ILLUSTRATED PARTS LIST

When placing an order, please specify the drawing number and the part number together with the name of each part and required quantity.

Fig #	Description	Qty	Part #
N1	Platform	1	
N1-1	Platform Plate	1	ND201010
N1-2	Screw & Nut	4	0218825
	Washer, Spring	4	0980853
N1-3	Plastic Fitting for Stay	2	ND391032

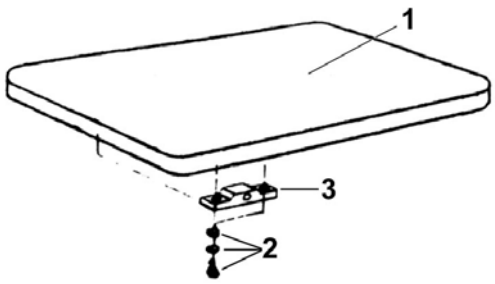
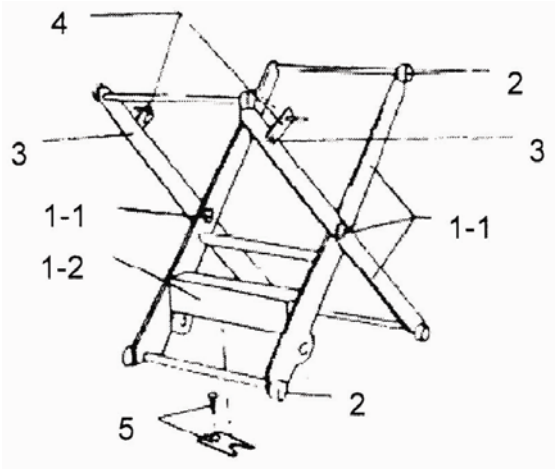


Figure N1

Fig #	Description	Qty	Part #
N2	Scissor Device	1	
N2-1-1	Scissor Outside	1	ND310011
	Scissor Inside		ND320010
	Pin, Pivot	2	ND340070
N2-1-2	Lift Box	1	ND340011
	Pin, Pivot	2	ND350001
	Ring Retaining	2	0322001
N2-2	Roller Upper	4	ND351001
	Roller Lower	4	ND361001
N2-3	Washer	2	0910812
N2-4	Stay	2	ND391012
N2-5	Jack Plate	1	ND351051
	Screw	1	0218825
N2-6	Knob with 5/8”-11 Threaded Rod	4	693-036-02
N2-8	Leveling Feet	4	693-036-03
N2-9	Height Lock Screw	1	693-036-04
N2-10	Knob- 1/2" C-bore	1	693-036-06
N2-11	Spring Pin 1/8” x 1	1	
N2-12	Bushing 3/8” x 1/2”	2	
N2-13	Bushing Support	1	693-036-07
N2-14	Socket Head Screws	2	10-24x1/2
N2-15	Washer, Stainless Steel	4	WX-3/8
N2-16	Nut Assembly	1	693-036-045



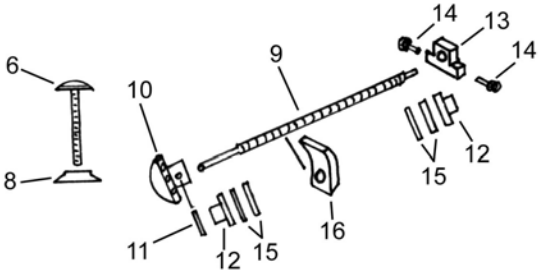


Figure N2

Fig #	Description	Qty	Part #
N-3	Frame (Not Illustrated)	1	ND101002

Fig #	Description	Qty	Part #
N4	Handle Assembly	1	
N4-1	Handle with Name Plate	1	ND220011
N4-2	Nut	2	0812011
	Washer, Spring	2	0982057

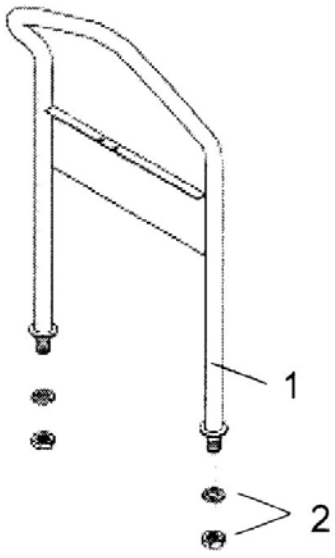


Figure N4

Fig #	Description	Qty	Part #
N5-1	Piston	1	ND520010
N5-2	Spring, Compression	1	ND531001
N5-3	Cap	1	ND540010
	Pin, Spring	1	0460820
N5-4	Nut “U”	2	0810881
N5-5	Bolt	2	0110825
	Nut	2	0810811
	Washer, Spring	2	0980853
N5-6	Jack Assembly ND511AA1	1	693-036-15

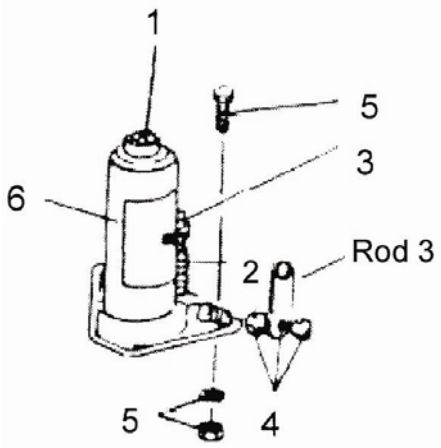


Figure N5

Fig #	Description	Qty	Part #
N6	Caster	4 Sets	
N6-1	Front Caster	2	38-WK 125
N6-2	Rear Caster, Swivel	2	38-WJ 125
N6-3	Bolt	16	0141020
	Washer, Spring	16	0981064
	Nut	16	0811011

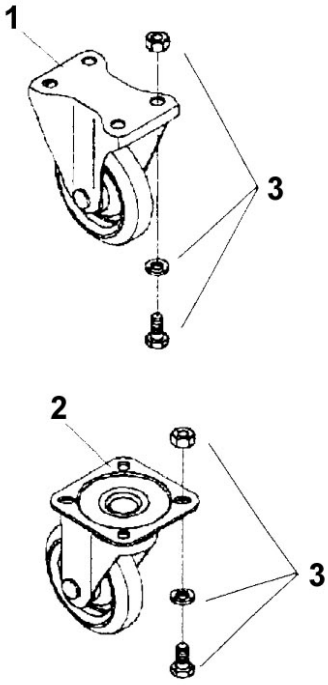


Figure N6

Fig #	Description	Qty	Part #
N7	Parking Brake	1	
N7-1	Floor Lock Assembly	1	ND810000
N7-2	Spring, Tension	1	ND810220
N7-3	Shoe	1	ND810200
N7-4	Bolt	4	0110820
	Washer, Spring	4	0980853
	Nut		810811

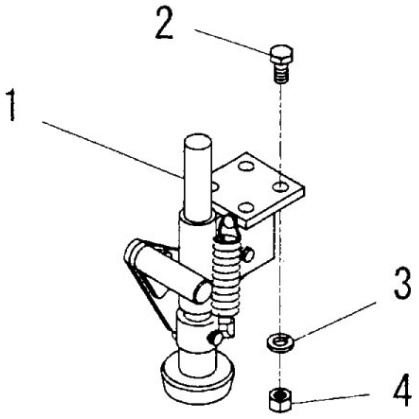


Figure N7

Fig #	Description	Qty	Part #
N8	Release Lever Ass'y	1	
N8-1	Release Lever	1	NUD220100
N8-2	Pin Spring	2	0460422
N8-3	Spring	1	ND760000
N8-4	Fixed Support Nut	1	UND720010
N8-5	Screw	1	0210816
N8-6	Release Lever Rod	1	UND461A1L
N8-7	Connecting Rod 2	1	UND740061
N8-8	Adjustable Release Rod	1	UND461B04
N8-9	Crank	1	UND740031
N8-10	Washer	1	0340808
N8-11	PIN, "R"	2	0340808
N8-12	Nut "U"	1	0810882
N8-13	Screw	2	0216616
N8-14	Washer, Spring	2	0980652
N8-15	Nut	2	0810611
N8-16	Bolt	1	0110865
N8-17	Washer, Spring	1	0910813
N8-18	Nut	1	0810812

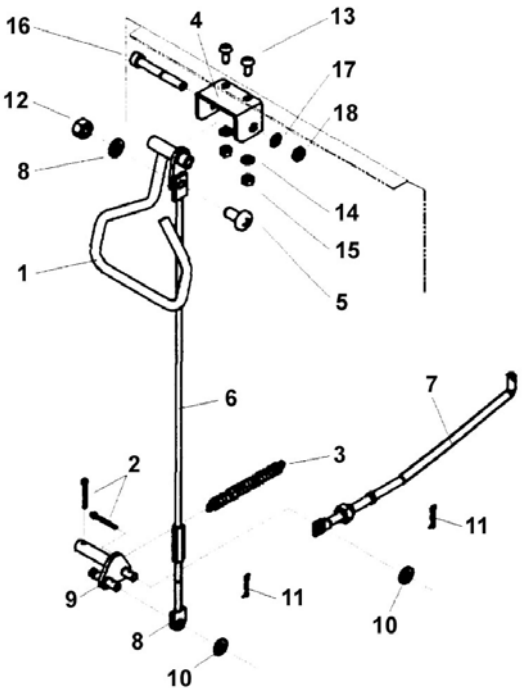


Figure N8

Fig #	Description	Qty	Part #
N9	Jack Pedal Assembly	1	
N9-1	Pedal, Jack	1	UND430010
N9-2	Pin, Split	1	0360630
	Nut, Castle	1	0811652
N9-3	Shaft (Bolt)	1	0111675-17
N9-4	Receiver, Pedal	1	ND440012
N9-5	R-Pin	1	0340808
N9-6	Spirit Pin	2	0362520
	Washer	2	0910812
N9-7	Pin-1	2	ND420040
N9-8	Connecting Rod	1	NB421012
	Bush	2	ND410070
N9-9	Screw, Retaining	1	0212410
N9-10	Shaft for Lever	1	ND140061
N9-11	Lever, Jack	1	ND410011
N9-12	Pin-2	1	ND410091
	Ring Retaining “E”	1	0320605
N9-13	Roller	1	ND410060
N9-14	Grease Nipple	2	0040600
	Washer	2	0910612

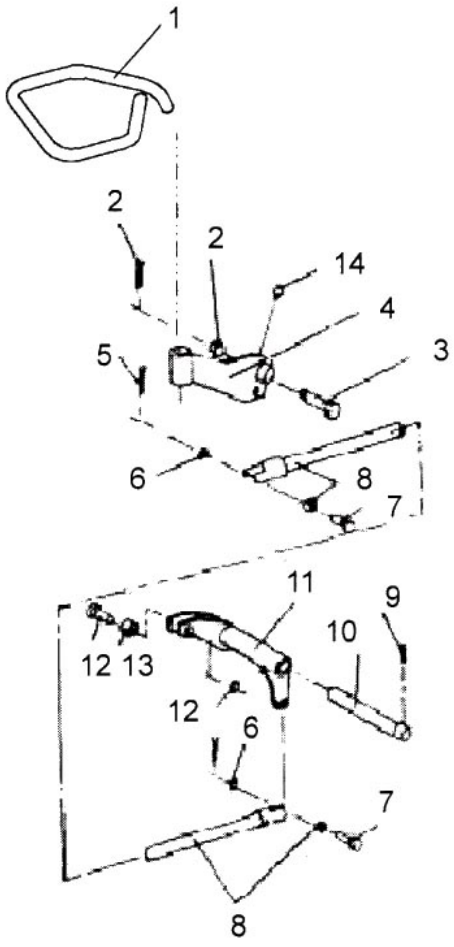


Figure N9

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