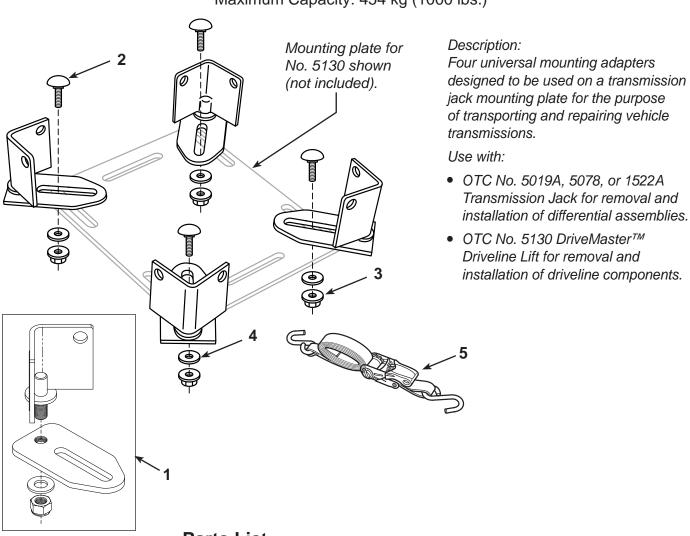


Parts List & Operating Instructions for:

561949

# **Light-Duty Transmission Adapters**

Maximum Capacity: 454 kg (1000 lbs.)



#### **Parts List**

Item	Part	No.	
No.	No.	Req'd	Description
1	561947	1	Transmission Adapter Assembly (consists
			of adapter, flat washer, hex nut)

### Repair Kit No. 569966

Item No.	Qty.	Description
2	4	Carriage Bolt — 1/2-13 x 30.48 mm (1.25 in.)
3	4	Flange Nut — 1/2-13 thread
4	4	Washer — plain, type "A"
5	1	Ratchet Strap — 4 ft. (122 cm)

#### **Explanation of Safety Signal Words**

The safety signal word designates the degree or level of hazard seriousness.

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**CAUTION**: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

# **Safety Precautions**

A

CAUTION: To prevent personal injury and/ or property damage,



- Study, understand, and follow all safety precautions and operating instructions before
  using these transmission adapters. If the operator cannot read instructions, operating
  instructions and safety precautions must be read and discussed in the operator's native
  language.
- Only qualified operators may install, operate, adjust, maintain, clean, repair, inspect, or transport these transmission adapters.



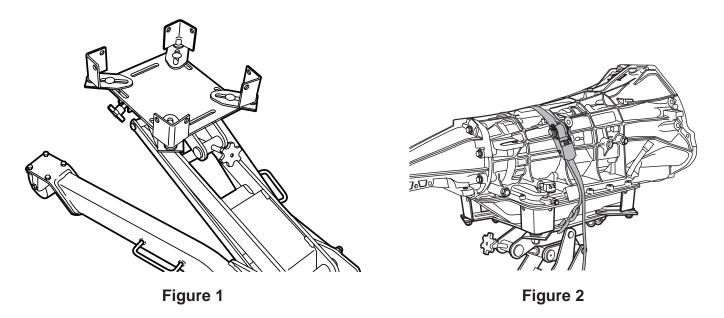
- Wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Do not exceed the rated capacity of these transmission adapters as stated in this document and on the warning decal.



- These adapters are designed to work together in a group of four. Using fewer than four adapters in a setup could result in personal injury caused by the load tipping or falling.
- Do not use these transmission adapters for anything other than their intended purpose.
- Use the ratchet strap included to secure the load to the transmission jack.
- No alteration shall be made to this product.
- Inspect the condition of the transmission adapters before each use; do not use if damaged, altered, or in poor condition.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.

### **Operating Instructions**

- 1. Install the transmission adapters on the transmission jack mounting plate using the carriage bolts, washers, and flange nuts provided. Hand tighten the flange nuts. See Figure 1.
- 2. Raise the arm of the jack up to the transmission.
- 3. Adjust the transmission adapters as needed to fit the transmission. Tighten the flange nuts.
- 4. Use ratchet strap to secure the transmission to the transmission jack as shown in Figure 2. Attach the hooks on the end of the ratchet strap to the slots provided in the mounting plate, the top holes in the transmission adapters, or other suitable locations.



# **Inspection and Maintenance**

CAUTION: To prevent personal injury,

- Only qualified personnel shall perform inspections and repairs to these transmission adapters.
- Before each use, an approved inspector must inspect the transmission adapters for bends, cracks, dents, elongated holes, or missing hardware. If damage is found, discontinue use.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.

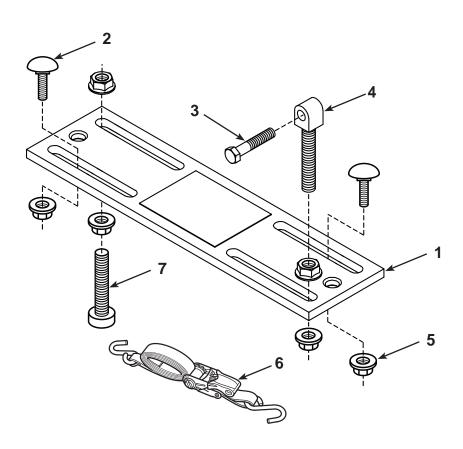


Parts List & Operating Instructions for:

558382

# **Auxiliary Box Adapter**

Maximum Capacity: 227 kg (500 lbs.)



#### Description:

Mounting adapter designed to be used on a transmission jack mounting plate for the purpose of removing and installing the transmission housing auxiliary box.

#### Use with:

- OTC No. 5019A, 5078, or 1522A
   Transmission Jack for removal and installation of differential assemblies.
- OTC No. 5130 DriveMaster<sup>™</sup>
   Driveline Lift for removal and installation of driveline components.

#### **Parts List**

Item	Part	No.	Description
No.	No.	Req'd	
1	569968	1	Plate Assembly (consists of plate & decal)

# Repair Kit No. 569967

Item No.	Qty.	Description
2	2	Carriage Bolt — 1/2-13 x 30.48 mm (1.25 in.)
3	1	Hex Head Screw — 3/8-16 x 50.8 mm (2 in.)
4	1	Stud — .500-13 x 101.6 mm (4 in.)
5	6	Flange Nut — 1/2-13 thread
6	1	Ratchet Strap — 122 cm (4 ft.)
7	1	Support Screw — 95.25 mm (3.75 in.)

#### **Explanation of Safety Signal Words**

The safety signal word designates the degree or level of hazard seriousness.

**DANGER**: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**CAUTION**: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

## **Safety Precautions**



CAUTION: To prevent personal injury and/ or property damage,



- Study, understand, and follow all safety precautions and operating instructions before using the auxiliary box adapter. If the operator cannot read instructions, operating instructions and safety precautions must be read and discussed in the operator's native language.
- Only qualified operators may install, operate, adjust, maintain, clean, repair, inspect, or transport this auxiliary box adapter.



- Wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Do not exceed the rated capacity of this auxiliary box adapter as stated in this document and on the warning decal.
- Do not use this auxiliary box adapter for anything other than their intended purpose.



- Use the ratchet strap included to secure the load to the transmission jack.
- No alteration shall be made to this product.
- Inspect the condition of the auxiliary box adapter before each use; do not use if damaged, altered, or in poor condition.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.

## **Operating Instructions**

- 1. Install the auxiliary box adapter on the transmission jack mounting plate using the carriage bolts and flange nuts provided. Tighten the flange nuts. See Figure 1.
- Plan the placement of the support screw and stud to fit your application. Figure 1 shows the support screw and the stud assembled to the adapter plate in one of several possible arrangements.
- Assemble both the support screw and the stud to the plate with one flange nut above the plate and one flange nut below the plate. The flat side of each flange nut must rest against the plate.
- Thread the lower flange nut on the stud all the way to the bottom of the threads. This allows room for adjustment.
- 5. Remove a bolt from the front of the transmission auxiliary box.
- Move the jack under the transmission, aligning the stud with the hole where the bolt was removed in the auxiliary box. Insert the bolt through the stud and into the auxiliary box. See Figure 2.

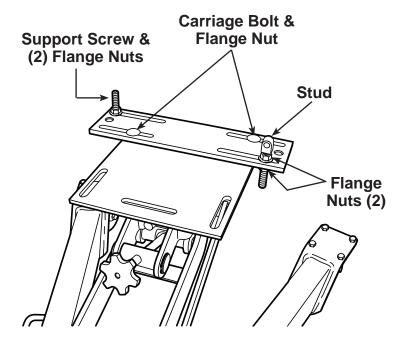


Figure 1

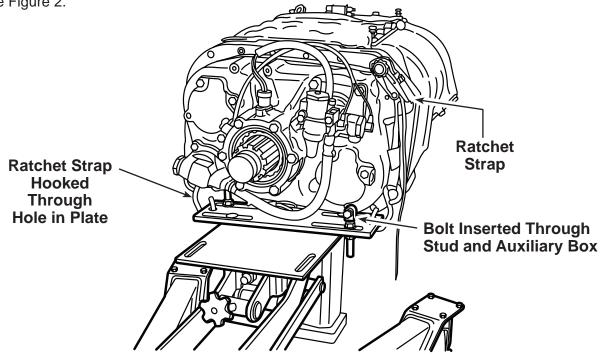
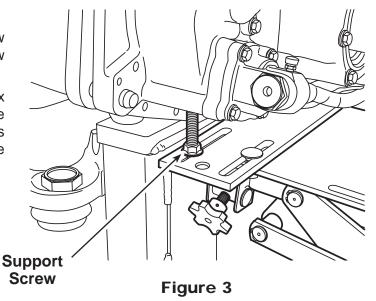


Figure 2

#### **Operating Instructions contd.**

- 7. Thread the upper flange nut on the support screw to the bottom of the threads until the support screw touches the housing. See Figure 3.
- Install the ratchet strap to secure the auxiliary box to the transmission jack. See Figure 2. Attach the hooks on the end of the ratchet strap to the slots provided in the mounting plate or other suitable locations.



# A

# **Inspection and Maintenance**

CAUTION: To prevent personal injury,

- Only qualified personnel shall perform inspections and repairs to this auxiliary box adapter.
- Before each use, an approved inspector must inspect the auxiliary box adapter for bends, cracks, dents, elongated holes, or missing hardware. If damage is found, discontinue use.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.



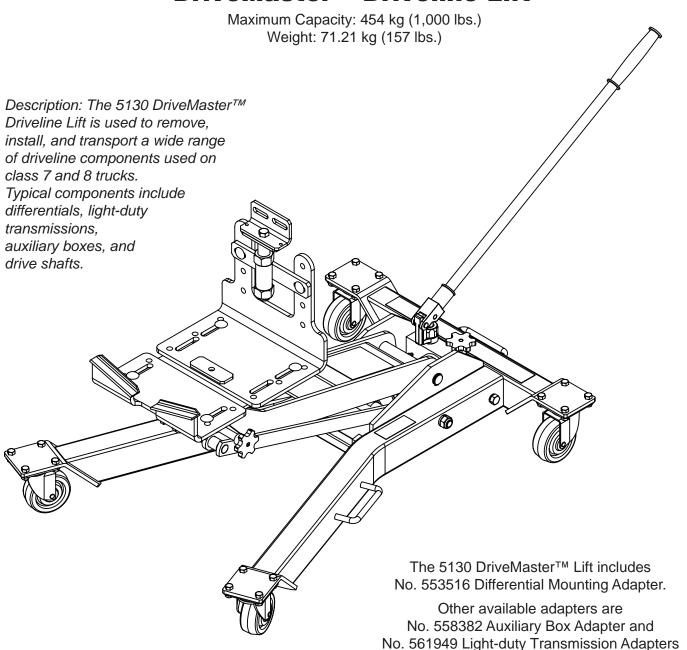
Parts List & Operating Instructions for:

5130



Original Instructions

# **DriveMaster™ Driveline Lift**



## **Explanation of Safety Signal Words**

The safety signal word designates the degree or level of hazard seriousness.

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**CAUTION**: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.



#### **Safety Precautions**

WARNING: To prevent personal injury and/or property damage,



- Study, understand, and follow all instructions before operating this lift. If the operator cannot read or understand these operating instructions and safety precautions, they must be read and discussed in the operator's native language.
- Only qualified operators may install, operate, adjust, maintain, clean, repair, inspect, or transport this lift.

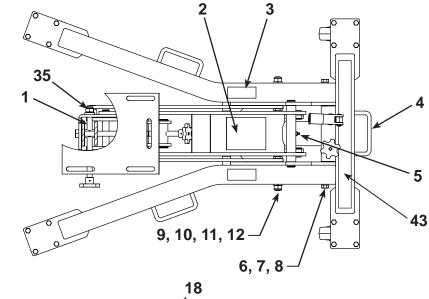


- Wear eye protection that meets the requirements of ANSI Z87.1, OSHA, CE EN166, AND AS/NZS 1337.
- Use the lift on hard, smooth, level surfaces only.
- Inspect the lift before each use; do not use the lift if it is damaged, altered, or in poor condition.

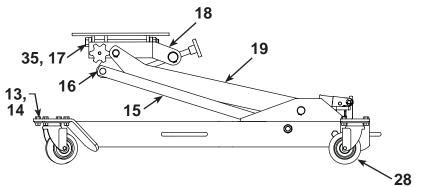


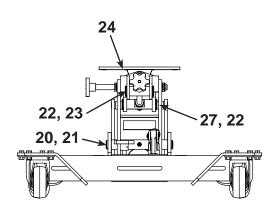
- No alterations shall be made to this lift unless approved by OTC. If a modification is needed, contact OTC Technical Services.
- This product is designed for and limited to removal, installation, and transportation in the lowered position, of driveline components on medium and heavy-duty trucks only.
- Do not exceed the rated capacity of 454 kg (1,000 lbs.).
- Lift only dead weight.
- Adequately support the truck before starting repairs to keep it stable. Block or chock all wheels and engage the emergency brake.
- Before using the lift, read, understand, and follow all warnings and driveline disassembly procedures in the truck's service manual.
- Stay out from underneath the load at all times.
- Secure the load to the lift before raising, lowering, or moving the load.
- Center the load on the lift's mounting plate. Off-center loads can damage seals and cause lift failure.
- Keep body parts clear of the lift when lowering a load to the floor.
- Lower the lift slowly and carefully while watching the position of the load.
- SLOWLY AND CAREFULLY move the lift around corners.
- This hydraulic driveline lift has an overload valve that is set at the factory. Do not adjust this setting.
- Use only approved hydraulic fluid (ISO 46 or equivalent). The use of alcohol or hydraulic brake fluid could damage seals and result in lift failure.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.

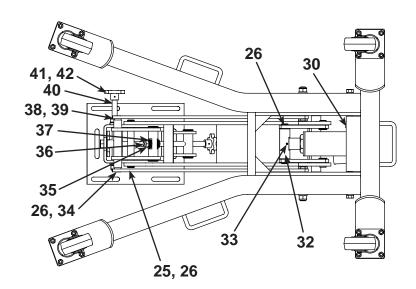
# **Parts List**



Note: See back of sheet 3 of 6 for No. 553516 Differential Mounting Adapter parts list.







<b>Parts</b>	List
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Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	562655	1	Trunnion	18	556658	1	Upper Pivot
2	556946	1	Logo Decal	19	556648	1	Lift Arm Weldment
3	218297	2	Warning Decal	24	556659	1	Table Top Weldment
6	556650	2	Tube	30	554853	1	Pump Assembly –
9	556649	2	Tube				see sheet 3 of 6
15	556921	2	Strap	32	556655	1	Trunnion
16	556657	1	Lower Pivot	43	568612	1	Warning Decal

# **Repair Kits**

Nο	5651	182	Hardware	Kit

	NO. 303 102 Haluwale Kit							
Item No.	No. Req'd	Description						
5	1	Grease Fitting						
7	2	Lock Washer						
8	2	Hex Hd. Cap Screw						
10	2	Lock Washer						
11	2	Nut – M16 x 1.5 -6H Nylock						
12	2	Hex Hd. Cap Screw						
20	2	External Retaining Ring						
21	1	Pin						
22	4	External Retaining Ring						
26	6	Retaining Ring – 19 mm						
33	1	Cotter Pin –						
		Extended Prong Type						

## No. 565183 Pivot Assembly Hardware Kit

Item No.	No. Req'd	Description
17	1	Hex Hd. Cap Screw
25	1	Pin
26	4	Retaining Ring – 19 mm
34	1	Pin
35	1	Metric Locking Nut

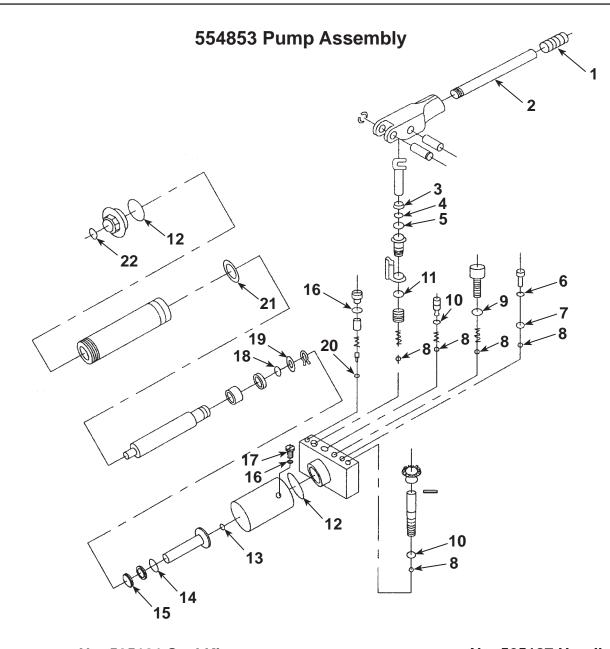
# No. 565184 Forcing Screw Kit

Item No.	No. Req'd	Description
22	4	External Retaining Ring
23	1	Trunnion
27	1	Trunnion
35	2	Metric Locking Nut
36	1	Forcing Screw
37	2	Bearing
38	1	Locking Collar
39	1	Pin
40	1	Forcing Screw
41	2	Roll Pin
42	2	Knob

#### No. 565185 Adjusting Knob Kit

No. 303 103 Adjusting Knob Kit						
Item No.	No. Req'd	Description				
41	2	Roll Pin				
42	2	Knob				
	No.	565186 Caster Kit				
Item	No.					
No.	Req'd	Description				
13	8	Lock Nut				

14 8 Hex Hd. Cap Screw – .375-16
 28 2 Swivel Caster



No. 565181 Seal Kit

Item No.	No. Req'd	Description	Item No.	No. Req'd	Description
3	1	Wiper	13	1	O-ring
4	1	Backup Ring	14	1	O-ring
5	1	O-ring	15	1	Y-ring
6	1	Seal Ring	16	2	O-ring
7	1	Ball	17	1	Oil Fill Plug
8	5	Ball	18	1	O-ring
9	1	Seal Ring	19	1	Washer
10	2	O-ring	20	1	Ball
11	1	Seal Ring	21	1	O-ring
12	2	Seal Ring	22	1	O-ring

No. 565187 Handle Kit

Item No.	No. Req'd	Description		
1 2	1 1	Handle Grip Handle		

#### Setup

#### General

Assemble the handle by threading the pump handle into the pump handle socket.

#### Bleeding Air from the Hydraulic System

Air can accumulate within a hydraulic system during shipment or after prolonged use. This entrapped air causes the lift to respond slowly or feel "spongy." To remove the air:

- 1. Open the release valve by turning the knob counterclockwise (CCW).
- 2. Pump the lift handle until resistance is felt.
- 3. Close the release valve by turning the knob clockwise (CW).
- 4. If the lift does not immediately respond to pumping the handle, repeat Steps 1—3.

#### **Operating Instructions**

WARNING: To prevent personal injury and/or equipment damage, read, understand, and follow all warnings and instructions before operating this lift. Refer to the truck service manual for additional safety warnings and procedures.

#### **Removal Operation**

- Before each use, remove trapped air from the hydraulic system. Refer to the Setup section "Bleeding Air from the Hydraulic System."
- 2. Plan for the specific driveline component that is to be removed. Attach the correct adapter securely to the lift platform. The lift must be sitting on a hard, smooth, and level surface.
- 3. Close the control valve by turning the knob clockwise (CW).
- 4. With the lift lowered completely, position it under the driveline component to be removed.
- 5. Operate the pump handle to raise the lift arm and align the component with the adapter.
- 6. Turn the tilt knobs to move the adapter forward or backward and side-to-side for closer alignment with the component. Note: The location of these tilt knobs when the lift is in position can make it difficult to turn them by hand. Attach a .25-inch square-drive wrench to the hole in the center of the knob to assist with turning. Do not use an impact wrench or power tool.
- 7. Secure the component to the adapter according to the adapter's instructions.
- 8. Disassemble the component from the truck according to the instructions in the truck's service manual.
- 9. Carefully lower the load by **slowly** opening the control valve (turning the knob counterclockwise [CCW]). The control valve regulates how fast the boom is lowered.
- 10. With the load lowered to its lowest position on the lift, slowly and carefully move the load out from under the truck using the handles on the lift frame.

#### **Installation Operation**

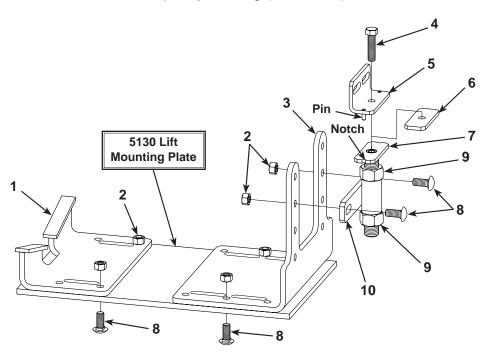
- Before each use, remove trapped air from the hydraulic system. Refer to the Setup section "Bleeding Air from the Hydraulic System."
- 2. Plan for the specific driveline component to be installed. Securely attach the correct adapter to the lift platform. The lift must be sitting on a hard, smooth, and level surface.
- 3. With the lift in its lowest position, close the control valve by turning the knob clockwise (CW).
- 4. Move the driveline component over and onto the adapter. Secure the component to the adapter according to the adapter's instructions.
- 5. Using the handles on the lift frame, slowly and carefully move the load under the truck and in position were the component will be installed.

#### **Operating Instructions (continued)**

- 6. Operate the pump handle to raise the component to the truck.
- 7. Turn the tilt knobs to move the adapter forward or backward and side-to-side to align the component for installation. Note: The weight of the load can make it difficult to turn the tilt knobs by hand. Attach a .25-inch square-drive wrench to the hole in the center of these knobs to assist with turning. Do not use an impact wrench or power tool.
- 8. Securely assemble the component to the truck according to the instructions in the truck's service manual.
- 9. Disassemble the component from the lift adapter and ensure the component is secure in the truck before continuing.
- 10. Slowly turn the release knob counterclockwise (CCW) to lower the lift arm to its lowest position.
- 11. Using the handles on the lift frame, move the lift out from under the truck.

#### No. 553516 Differential Mounting Adapter

Maximum Capacity: 454 kg (1,000 lbs.)



**Parts List** 

Item No.	Part No.	Qty. Description		
1	553358	53358 1 Plate Weldment		
3	553355	1 Plate		
5	553360 1 Bent Clamp Assembly		Bent Clamp Assembly	
6	553356	56 1 Top Clamp		
7	553361	1	Support Screw Weldment	
10	553359	1	Support Weldment	

Repair Kit No. 568560 contains:

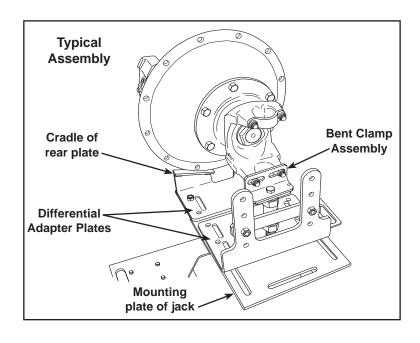
Item No.	Qty.	Description
2	6	Hex Nut (1/2-13)
4	1	Hex Head Cap Screw
8	6	Carriage Bolt (round head; square neck)
9	2	Hex Nut

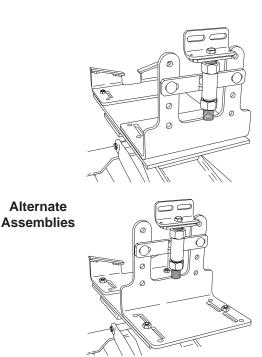
### No. 553516 Differential Mounting Adapter Assembly

(Item numbers refer to parts list on sheet 4 of 6.)

1. Determine if the differential has removable end caps and follow the appropriate procedure.

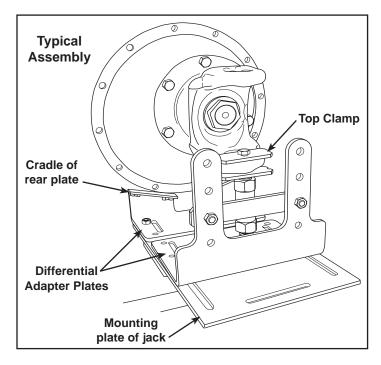
#### If the Differential Has Removable End Caps:

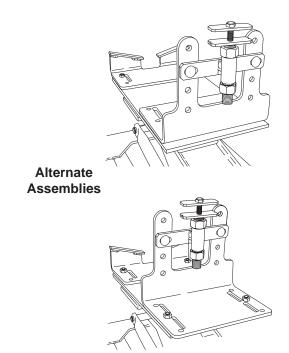




- 1. Remove the lowest end cap from the yoke of the differential.
- 2 Position the lift under the differential.
- 3. Loosely assemble the adapter plates (Item Nos. 1 and 3) to the mounting plate of the jack using hex nuts and carriage bolts (Nos. 2 and 8, four each). Orient and space the adapter plates to fit the shape of the differential as closely as possible.
- 4. Assemble the support screw weldment (No. 7) and bent clamp assembly (No. 5) to the support weldment (No. 10) as follows:
  - a. Thread a hex nut (No. 9) onto the support screw (No. 7), and insert the screw into the housing on the support weldment (No. 10). Thread the other hex nut (No. 9) onto the bottom of the screw.
  - b. Attach the bent clamp assembly (No. 5) to the support screw weldment (No. 7) using a hex head cap screw (No. 4). *Note: The pins on the bent clamp fit into notches on the support screw weldment.*
- 5. Using hex nuts and carriage bolts (Nos. 2 and 8, two each), attach the support weldment assembly to the pair of holes in the plate (No. 3) that best align the bent clamp assembly to the yoke of the differential.
- 6. Adjust the hex nuts on the support screw up or down as needed to further align the bent clamp assembly to the yoke.
- 7. Verify the alignment of the adapters with the differential, and secure all bolts and screws.
- 8. Close the control valve on the jack or lift. Operate the pump handle to raise the boom and align the adapter plates with the differential. The flange of the differential must rest on the cradle of the rear plate as shown in the "Typical Assembly" graphic.
- 9. Adjust the front plate / support screw assembly, if necessary, until the bent clamp assembly aligns with the yoke of the differential. Attach the clamp to the yoke using the bolts from the yoke end cap.
- 10. Remove the differential from the vehicle according to the instructions in the vehicle service manual.

#### If the Differential Does Not Have Removable End Caps:





- 1 Position the jack under the differential.
- 2. Loosely assemble the adapter plates (Item Nos. 1 and 3) to the mounting plate of the jack using hex nuts and carriage bolts (Nos. 2 and 8, four each). Orient and space the adapter plates to fit the shape of the differential as closely as possible.
- 3. Thread a hex nut (No. 9) onto the support screw (No. 7), and insert the screw into the housing on the support weldment (No. 10). Thread the other hex nut (No. 9) onto the bottom of the screw.
- 4. Using hex nuts and carriage bolts (Nos. 2 and 8, two each), attach the support weldment assembly to the pair of holes in the plate (No. 3) that best suits alignment with the yoke of the differential.
- 5. Adjust the hex nuts on the support screw up or down as needed to further align with the yoke.
- 6. With the hole in the yoke of the differential aligned over the support screw, attach the top clamps (No. 6) to the support screw weldment (No. 7) using a hex head cap screw (No. 4).
- 7. Verify the alignment of the adapters with the differential, and secure all bolts and screws. Lock the hex nuts on the support screw.
- 8. Close the control valve on the jack or lift. Operate the pump handle to raise the boom and align the adapter plates with the differential. The flange of the differential must rest on the cradle of the rear plate as shown in the "Typical Assembly" graphic.
- 9. Adjust the front plate / support screw assembly, if necessary, until the yoke of the differential is supported by the support screw and the top clamp holds the yoke firmly in place.
- 10. Remove the differential from the vehicle according to the instructions in the vehicle service manual.

### **Parts List & Operating Instructions**



#### **Preventive Maintenance**

WARNING: To prevent personal injury and/or property damage,

- Only qualified personnel shall perform inspections and repairs to this lift.
- Before each use, an approved inspector must inspect the lift for bends, cracks, dents, elongated holes, or missing hardware. If damage is found, discontinue use.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.

Note: Dirt is the single greatest cause of failure in hydraulic units. Keep the lift clean and well lubricated to prevent foreign matter from entering the system. If the lift has been exposed to rain, snow, sand, or grit, it must be cleaned before it is used.

#### Storage

Lower the lift arm completely and store the lift in a well-protected area where it will not be exposed to corrosive vapors, abrasive dust, or any other harmful element.

#### Lubrication

Lubricate the moving parts at lease once a month. Add grease to the grease fitting every three months.

#### Oil Replacement and Level

Replace the oil in the pump reservoir at least once a year. To check the oil level, place the lift on level ground and lower the lift arm completely. Remove the oil fill plug. The oil level should be within 10 mm (.375 in.) of the filler plug hole. If necessary, add approved anti-wear hydraulic oil and reinstall the fill plug. CAUTION: Use only approved hydraulic fluid such as ISO 46 or an equivalent with a 215 SUS viscosity rating at 37.78° C (100° F). The use of alcohol, hydraulic brake fluid, detergent motor oil, or transmission fluid could damage seals and result in lift failure.

#### Inspection

Inspect the lift before each use. Take corrective action if any of the following problems are found:

- a. Cracked or damaged housing
- b. Excessive wear, bending, or other damage
- c. Leaking hydraulic fluid
- d. Scored or damaged piston rod

- e. Malfunctioning swivel heads or adjusting screws
- f. Loose hardware
- g. Modified or altered equipment

#### Repair

If repair is needed, use only the repair parts listed in this document. These items have been carefully tested and selected by OTC.

# **Disposal**

At the end of this lift's useful life, drain the oil and deliver it to an authorized agent for disposal. Dispose of the lift in accordance with local, state or federal regulations.

# **Troubleshooting Guide**

Repair procedures must be performed in a dirt-free environment by qualified personnel who are familiar with this equipment.

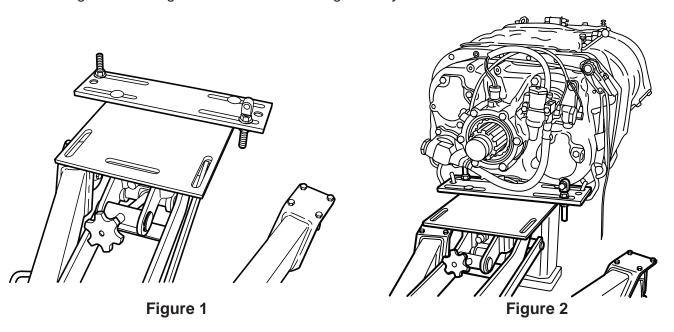
Trouble		Cause		Solution
Unit does not lift	1. 2. 3. 4. 5.	Release valve is open Low/no oil in reservoir Air-locked system Load is above capacity of unit Delivery valve and/or bypass valve not working correctly Packing worn out or defective	1. 2. 3. 4. 5.	Close release valve. Fill with oil and bleed system. Bleed system. Use correct equipment. Clean to remove dirt or foreign matter. Replace oil. Replace power unit.
Unit lifts only partially	1.	Too much or not enough oil	1.	Check oil level.
Unit advances slowly	1. 2.	Pump not working correctly Leaking seals	1. 2.	Replace seals with #565181 seal kit. Replace power unit.
Unit lifts load, but doesn't hold	1. 2.	Cylinder packing is leaking Valve not working correctly (suction, delivery, release, or bypass)	1. 2.	Replace seals with #565181 seal kit. Inspect valves. Clean and repair seat surfaces.
	3.	Air-locked system	3.	Bleed system.
Unit leaks oil	1.	Worn or damaged seals	1.	Replace seals with #565181 seal kit.
Unit will not retract	1.	Release valve is closed	1.	Open or clean release valve.
Unit retracts slowly	1. 2.	Cylinder damaged internally Link section is binding	1. 2.	Replace power unit. Lubricate link section.

# Additional Mounting Adapters (not included with the 5130)

### 558382 Auxiliary Box Adapter

Maximum Capacity: 227 kg (500 lbs.)

Description: Mounting adapter designed to be used on a transmission jack mounting plate for the purpose of removing and installing the transmission housing auxiliary box.



# **561949 Light-Duty Transmission Adapters**

Maximum Capacity: 454 kg (1,000 lbs.)

Description: Four universal mounting adapters designed to be used on a transmission jack mounting plate for the purpose of transporting and repairing vehicle transmissions.

