

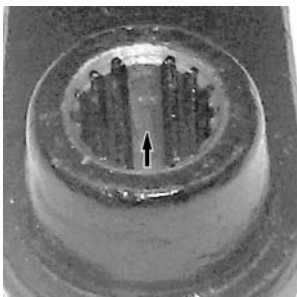
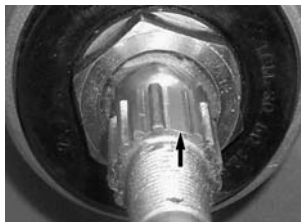
**September 26, 2011** Subject: **DPS Pitman Arm Service Procedure and Tools**

No. **2011-14**


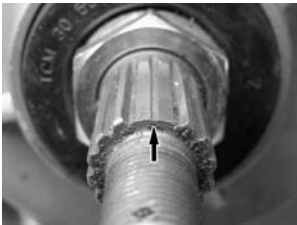
YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2010 to 2012	Renegade & Outlander	All equipped with DPS	All

## PARTS IDENTIFICATION

### Old Execution DPS

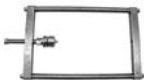



PITMAN ARM	DPS OUTPUT SHAFT	DPS PART NUMBERS
		(P/N 548 872 856) (P/N 709 400 814) (P/N 709 400 816) (P/N 709 400 838) (P/N 709 400 841) (P/N 709 400 849) (P/N 709 400 862) (P/N 709 400 864) (P/N 709 400 882) (P/N 709 400 908) (P/N 709 401 001)
One spline missing – Old execution DPS and its Pitman arm are not available as a spare part; so if either part fails, a new execution DPS along with new execution Pitman arm must be installed. – The old execution Pitman arm never was available as a spare part because components were not mechanically designed to be replaced.		

# New Execution DPS

PITMAN ARM	DPS OUTPUT SHAFT	DPS PART NUMBERS
		G1 type frame (P/N 709 401 003) G2 type frame (P/N 709 401 071)
Two splines missing – Pitman arm and DPS can be replaced separately. – Can not be mixed with previous execution.		

## TOOLS (OPTIONAL)

NOTE: These are optional tools; they will not be auto shipped.

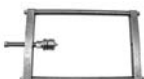

PITMAN ARM JIG (P/N 529 036 225)	
PITMAN ARM PULLER (P/N 529 036 227)	
PITMAN ARM PUSHER (P/N 529 036 226)	
POSITIONING ADAPTOR (P/N 529 036 230)	

## SERVICE PROCEDURES

### DPS Unit Removal

Remove DPS unit from vehicle, refer to *DPS/ACS TECHNICAL MANUAL* (P/N 219 100 388).

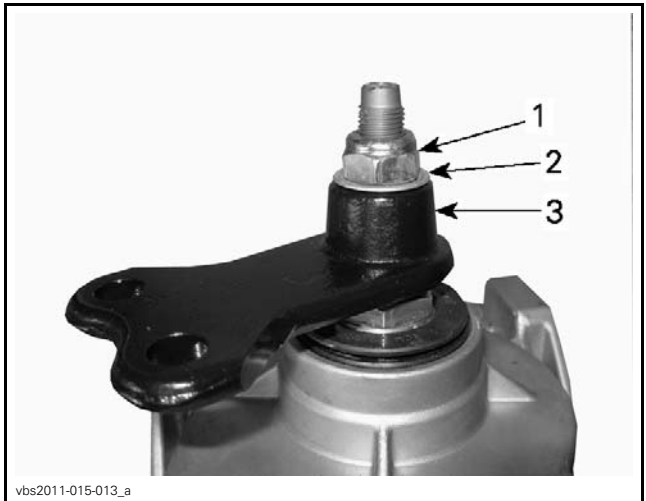
### New Execution Pitman Arm Removal (G1 Frame Type)

REQUIRED TOOLS	
PITMAN ARM JIG (P/N 529 036 225)	
PITMAN ARM PULLER (P/N 529 036 227)	

1. Remove and discard cotter pin.

2. Remove and discard Pitman arm nut, keep washer for reinstallation.

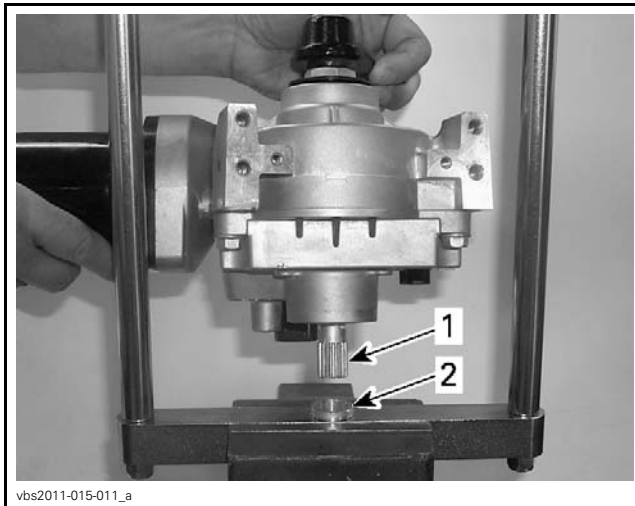
NOTE: A new nut and a new cotter pin are included with replacement Pitman arms.



- 1. Pitman arm nut
- 2. Washer
- 3. Pitman arm

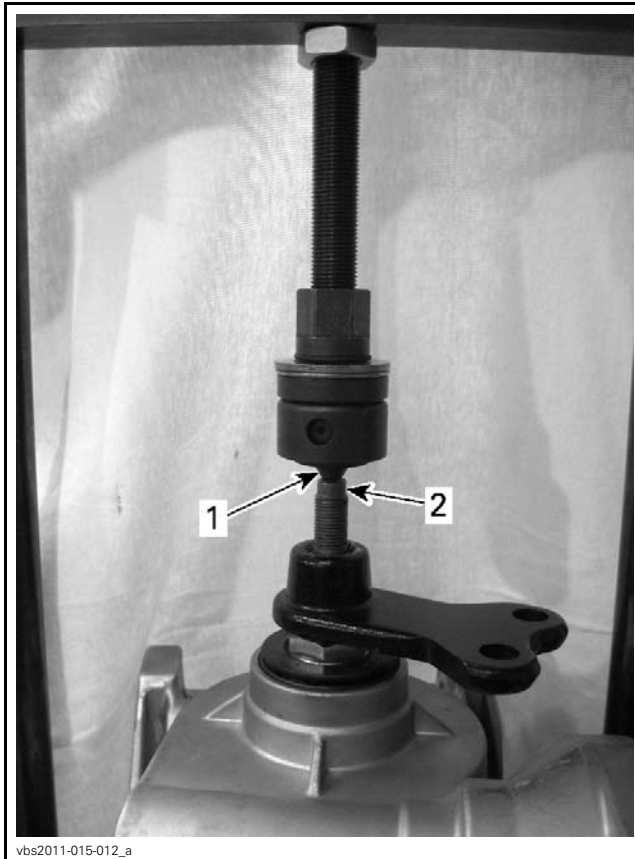
3. Install the Pitman arm jig in a vise with the positioning screw upward.

4. Position the DPS input shaft splines in the jig bottom receptacle.



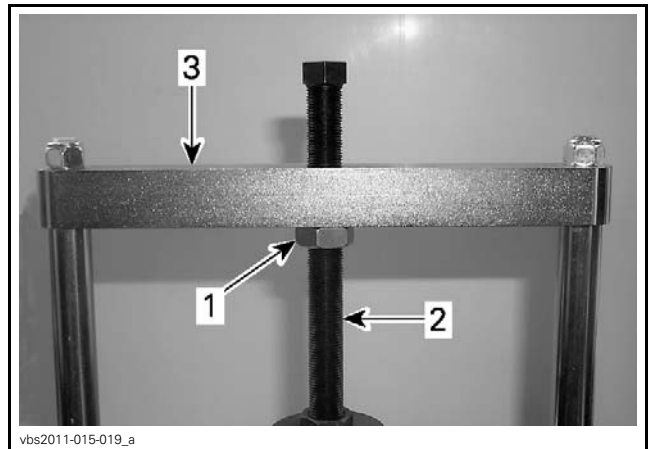
1. DPS input shaft splines
2. Jig bottom receptacle

5. Thread the positioning screw down until the jig screw tip firmly contacts the DPS output shaft.



1. Positioning screw tip
2. DPS output shaft

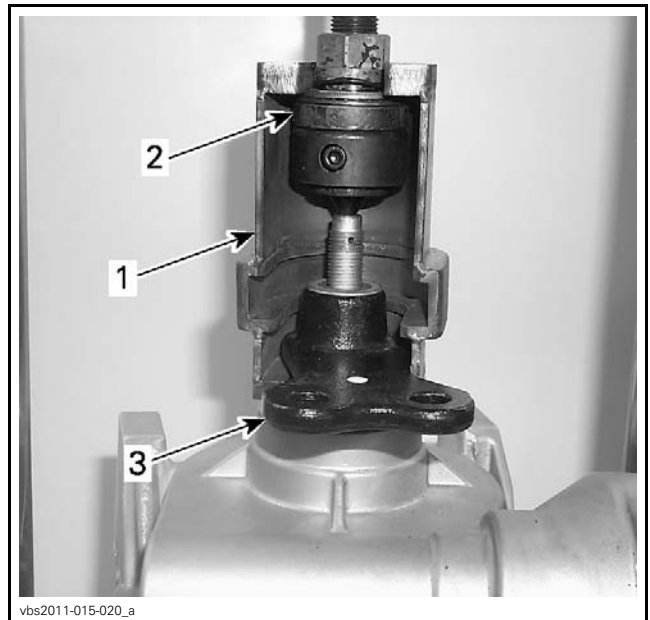
6. Lock the positioning screw on jig upper bar with locking nut as illustrated.



#### LOCKED POSITIONING SCREW

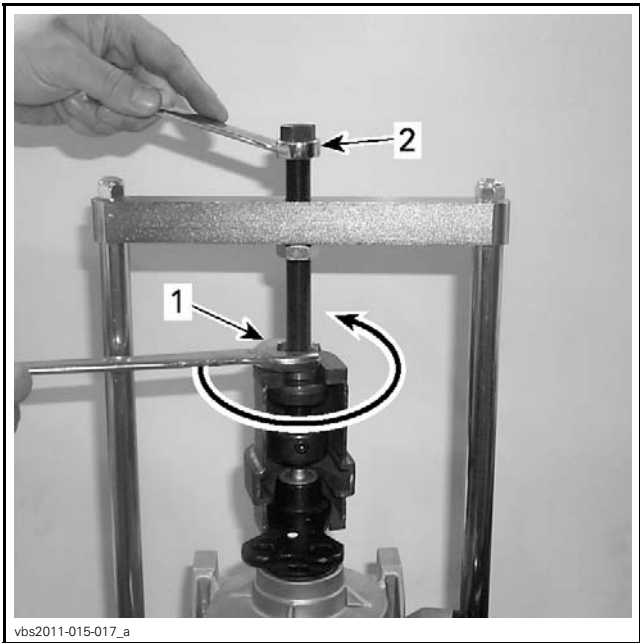
1. Locking nut
2. Positioning screw
3. Jig upper bar

7. Install the puller over the Pitman arm and the jig thrust bearing.



1. Puller
2. Jig thrust bearing
3. Pitman arm



8. Pull Pitman arm off the DPS output shaft by unscrewing the thrust bearing nut while holding the positioning screw.



1. Thrust bearing nut  
2. Positioning screw

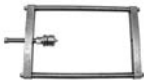

9. Remove the Pitman arm puller, unscrew positioning screw.  
10. Remove the Pitman arm from the DPS shaft.

## New Execution Pitman Arm Removal (G2 Frame Type)

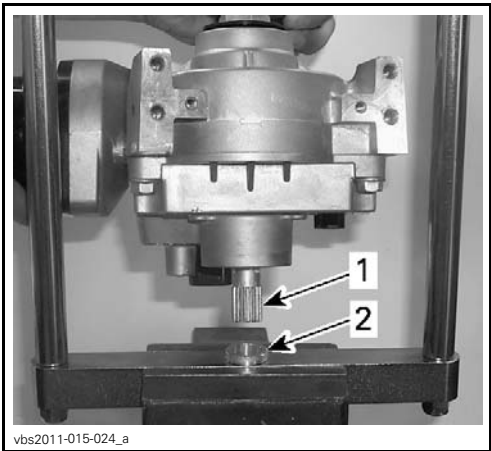
REQUIRED TOOLS	
PITMAN ARM JIG (P/N 529 036 225)	
PITMAN ARM PULLER (P/N 529 036 227)	
POSITIONING ADAPTOR (P/N 529 036 230)	

For removal instructions refer to *STEERING SYSTEM* sub-section of the *OUTLANDER / RENEGADE 800R / 1000 SHOP MANUAL* (P/N 219 100 542).

## New Execution Pitman Arm Installation (G1 Type Frame)

REQUIRED TOOLS	
PITMAN ARM JIG (P/N 529 036 225)	
PITMAN ARM PUSHER (P/N 529 036 226)	

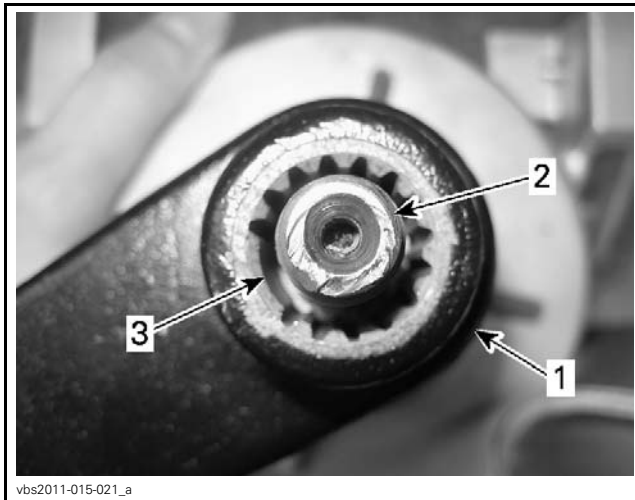
1. Place the jig in a vise with positioning screw upward.  
2. Position the DPS input shaft in the jig bottom receptacle.



1. DPS input shaft  
2. Jig bottom receptacle

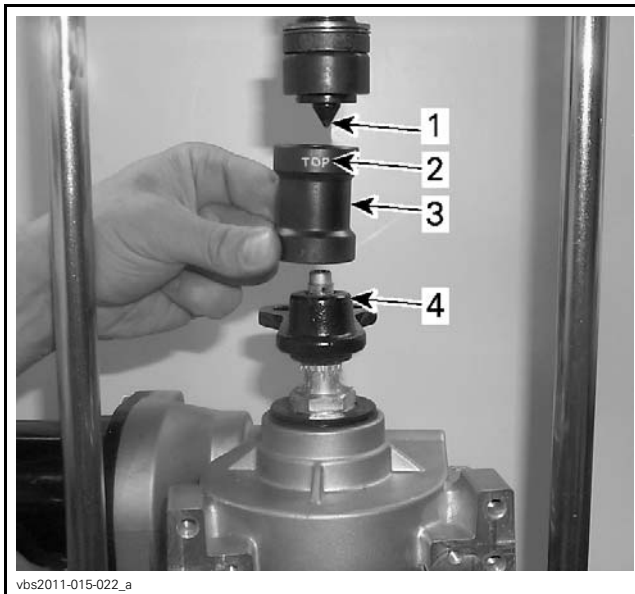
3. Apply LOCTITE 767 (ANTISEIZE LUBRICANT) (P/N 293 800 070) on DPS unit output shaft splines, where the Pitman is inserted, be sure to cover all the splines.

4. Install the Pitman arm on the DPS output shaft, align the missing splines.



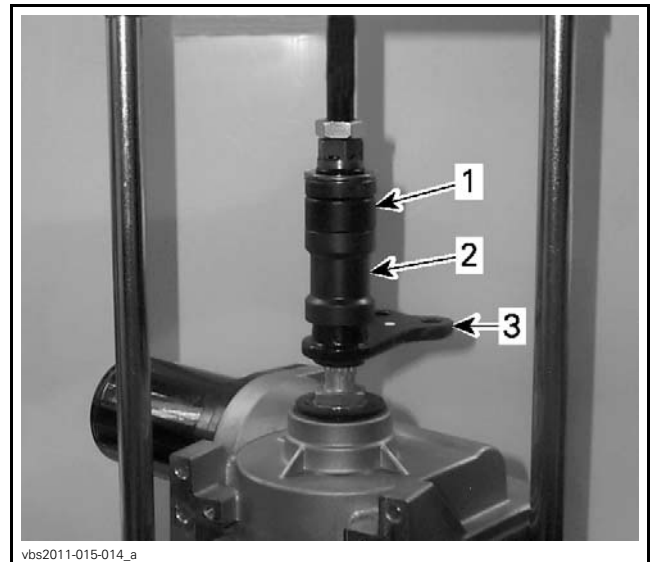
1. Pitman arm
2. DPS output shaft
3. Missing splines

5. Install the pusher adapter between the positioning screw tip and Pitman arm with the TOP mark upward as illustrated.



1. Positioning screw tip
2. TOP mark
3. Pusher adapter
4. Pitman arm

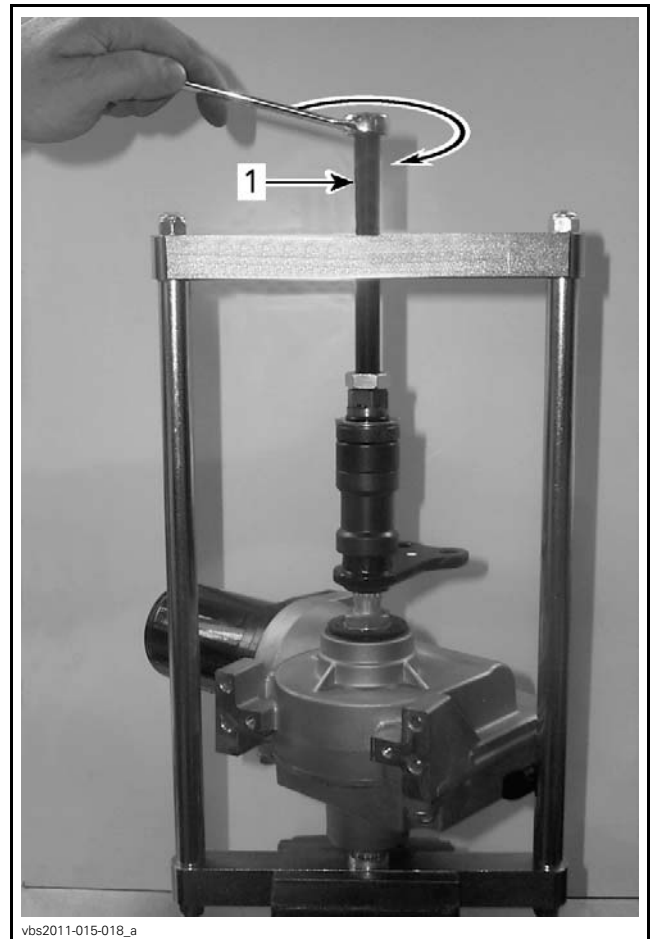
6. Screw positioning screw to seat the pusher adapter in place.



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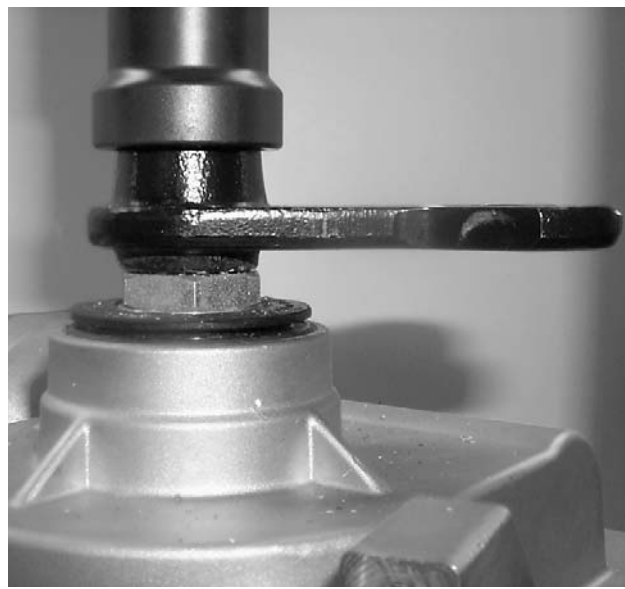
1. Positioning screw tip
2. Pusher adapter
3. Pitman arm

7. Turn the positioning screw clockwise to push the Pitman arm on the DPS output shaft until it is fully seated.



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1. Positioning screw

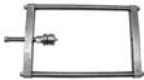


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**FULLY SEATED PITMAN ARM**

- 8. Unscrew positioning screw and remove pusher adapter and pull out DPS unit.
- 9. Install washer and a new nut.
- 10. Tighten nut to 62 N•m (46 lbf•ft).
- 11. Install a new cotter pin.
- 12. Install DPS in vehicle and check steering alignment. Adjust as required. Refer to *2008 OUTLANDER/ RENEGADE SHOP MANUAL* (P/N 219 100 273).

**New Execution Pitman Arm Installation (G2 Type Frame)**

REQUIRED TOOLS	
PITMAN ARM JIG (P/N 529 036 225)	

For installation instructions refer to *STEERING SYSTEM* sub-section of the *OUTLANDER/ RENEGADE 800R / 1000 SHOP MANUAL* (P/N 219 100 542).