

CATERPILLAR D6T

AK7 / SEBP5820

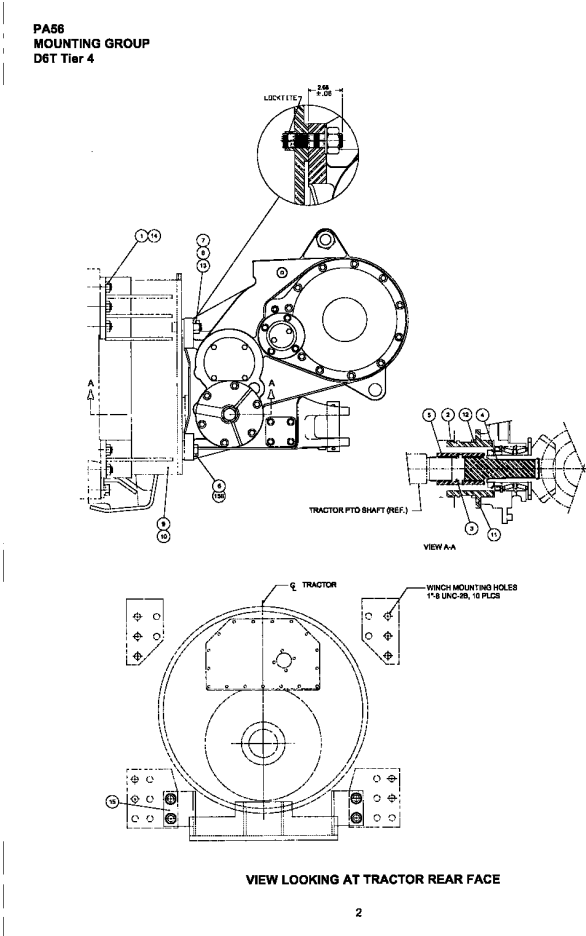
Contents

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Power train	2

MOUNTING GROUP

MOUNTING GROUP

Drawing 1 of 1



Ref.	Part number	Description	Qty	Code	Group page
1	119-0171	STUD (1 - 8 X 3-1/4 G8)	10		
2	8S-5654	O-RING	3		
3	002-3455	RETAINING RING	2		
4	118-6595	PTO SHAFT	1		
5	118-5863	COUPLING	1		
6	7X-0406	CAPSCREW-HEX HEAD (1 - 8 X 3 G8 Z)	4		
7	4J-5977	NUT-HEX (1-1/8 - 7)	4		
8	133-9224	STUD (1-1/8 - 7 X 4-3/4)	4		
9	118-6929	ADAPTER (RH)	1		
10	118-6930	ADAPTER (LH)	1		
11	118-6537	PILOT, PTO	1		
12	5P-2228	CAPSCREW-HEX HEAD (1/2 - 13 X 1 G8 Z)	4		
13	7X-0531	WASHER-HARDENED (1-1/8)	4		
14	6V-8190	NUT, HEX (1 - 8)	10		
15	3W-1356	ECOLOGY DRAIN GROUP (INCLUDES ITEMS 15A, B, & C)	1		

MOUNTING GROUP (continued)

Ref.	Part number	Description	Qty	Code	Group page
15A	3W-1357	GUARD	1		
15B	8T-5361	WASHER-HARDENED	8		
15C	7X-0400	CAPSCREW-HEX HEAD (1 - 8 X 1-1/2 G8 Z)	4		

MOUNTING GROUP INSTRUCTIONS

MOUNTING GROUP INSTRUCTIONS

Drawing 1 of 2

MOUNTING GROUP INSTRUCTIONS

1. PTO rotation is counterclockwise (CCW) as viewed from the rear of the tractor. Remove the tractor PTO cover.
2. Remove paint, dirt, rust, oil and grease from mounting surfaces of tractor, winch and winch adapters. If this material is left between the mounting surfaces, movement of the clamped members will result in loosening mounting fasteners and possible fastener or mounting component failure.
3. Coat splines of PTO shaft (4), with multi-purpose grease and install into bevel pinion gear of winch.
4. Install retaining rings (3), in coupling (5). Trial fit the coupling onto the tractor PTO shaft and the winch PTO shaft to make certain the splines fit well and there are no rough areas on either shaft that need to be smoothed. Install coupling onto winch PTO shaft with deepest bevel end away from winch.
5. Install O-rings (2), onto PTO pilot (11). NOTE: As the same PTO pilot may be used on several adaptations, typically only one O-ring groove will engage and seal in the tractor PTO opening.
6. Apply Loctite 271, 277 or equivalent to threads and install studs (8) into winch adapters (9, 10) to a height of 2-5/8 in. (67 mm).
7. Apply Loctite 242, 243 or equivalent to the threads of capscrews (6), and studs (8). Install the winch adapters (9, 10) onto the winch then install capscrews (6), washers (13) and nuts (7) onto studs (8). At this time, only lightly hand-tighten the capscrews (6), and nuts (21).
8. Fill winch to proper level with recommended oil.

WARNING

Winch weighs approximately 2500 lb. (1134 kg) without oil, cable or tractor adapters. Make certain lifting equipment has adequate capacity to eliminate the possibility of damage or injury. Attempting to lift the winch with inadequate equipment may result in personal injury or property damage.

WARNING

DO NOT start the tractor engine until the winch has been filled to the proper level with the recommended oil. Bearing and gear damage may result if the tractor is run without oil in the winch.

MOUNTING GROUP INSTRUCTIONS (continued)

Drawing 2 of 2

PA56 MOUNTING GROUP D6T Tier 4

There are two methods that may be used to install the winch with adapters onto the rear face of the tractor:

Method A: Involves removing winch guards and covers to gain access to the bevel gears.

A1. Apply Loctite 271, 277 or equivalent to clean, dry threads and install studs (1) into rear face of tractor until they bottom in the stud bores but no lower than a height of 1.80 in. (46 mm) measured from the machined surface of the tractor rear face mounting pads to the end of the stud.

A2. Apply general purpose grease to the PTO pilot o-rings. Lift winch into position and install onto rear of tractor taking care to guide the PTO shaft/coupling onto the tractor PTO shaft. It may be necessary to rotate the winch bevel pinion gears to align the winch shaft with the tractor shaft. It will be necessary to remove the guard group and top cover from the winch to gain access to the bevel gears.

A3. Apply Loctite 242 or 243 to clean dry threads of studs (1) and install nuts (14).

NOTE: Keep the winch in a level position to avoid binding of the PTO pilot and shafts.

With the weight of the winch supported by the hoist, use a cross pattern to evenly tighten all mounting fasteners to approximately 25% of the recommended torque. Start the tractor engine and listen for any unusual gear train noise that would indicate binding in the PTO shafts or gear train. If no unusual noises are detected, remove the hoist from the winch and continue to evenly tighten all mounting fasteners to recommended torque. Tighten nuts (7) & (14) to 600 lb...ft. (815 N·m) torque. Tighten capscrews (6) to 680 lb·ft (920 N·m) torque. If torque wrench adapters are not available for tightening the nuts (7, 14) they may be tightened as follows: Tighten nuts with a hand wrench to approximately 100 lb...ft.. (136 N·m) torque to remove all looseness from the assembly. Mark the position of a wrench flat on each nut, then tighten each nut one (1) additional wrench flat.

Method B: Does not require removal of guards and covers from the winch.

B1. Apply general purpose grease to the PTO pilot o-rings. Lift winch into position and install onto rear of tractor taking care to guide the PTO shaft/coupling onto the tractor PTO shaft. While the winch is supported on the hoist, slightly rotate the winch case to align the PTO coupling on the winch with the PTO shaft of the tractor.

NOTE: Keep the winch in a level position to avoid binding of the PTO pilot and shafts.

B2. Apply Loctite 271, 277 or equivalent to clean dry threads and install studs (1) through winch adapter holes into the tractor rear face. Install the studs till they bottom in the stud bores but no lower than 1.80 in. (46 mm) measured from the machined surface of the tractor rear face mounting pads to the end of the stud. Apply Loctite 242 or 243 to clean dry threads of studs (1) and install nuts (14). With the weight of the winch supported by the hoist, use a cross pattern to evenly tighten all mounting fasteners to approximately 25% of the recommended torque. Start the tractor engine and listen for any unusual gear train noise that would indicate binding in the PTO shafts or gear train. If no unusual noises are detected, remove the hoist from the winch and continue to evenly tightening all mounting fasteners to recommended torque. Tighten nuts (7) & (14) to 600 lb...ft.. (815 N·m) torque. Tighten capscrews (6) to 680 lb·ft (920 N·m) torque. If torque wrench adapters are not available for tightening the nuts (7, 14) they may be tightened as follows: Tighten nuts with a hand wrench to approximately 100 lb...ft.. (136 N·m) torque to remove all looseness from the assembly. Mark the position of a wrench flat on each nut, then tighten each nut one (1) additional wrench flat.

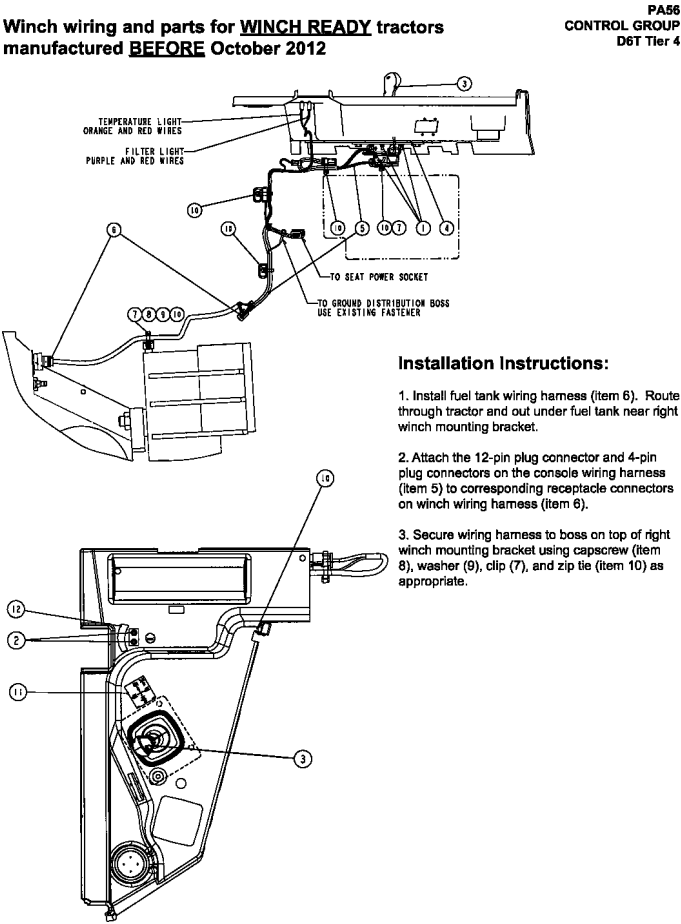
After winch is installed on tractor and all fasteners tightened to recommended torque, the bevel pinion must be pried toward the tractor. During installation, the pinion may get driven hard into the bevel gears, taking all end-play out of the pinion bearings and back-lash out of the gear set. Insert a pry bar between the clutch shaft and pinion then pry the pinion toward the tractor. A small amount of gear back-lash should be detected when the pinion moves forward.

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP5820/SEBP58200002 yet.					

CONTROL GROUP

CONTROL GROUP - WINCH WIRING AND PARTS FOR WINCH READY TRACTORS MANUFACTURED BEFORE OCTOBER 2012

Drawing 1 of 1



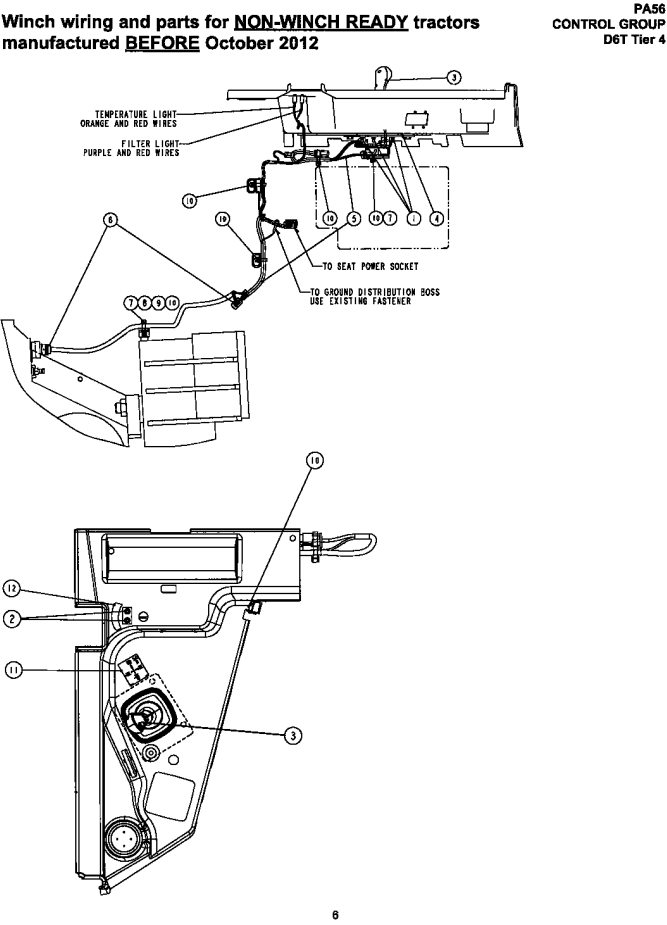
Ref.	Part number	Description	Qty	Code	Group page
1	112-6646	METRIC FLANGED LOCKNUT (M6 X 1)	4	L	
2	138-2434	LIGHT-LED (24V RED BIPOLAR)	2	L	
3	279-2504	JOYSTICK	1	L	
4	336-3850	ADAPTER PLATE	1	L	
5	365-8755	CONSOLE WIRING HARNESS	1	L	
6	369-5910	FUEL TANK WIRING HARNESS (INSTALL)	1		
7	4P-8134	CLIP	2	L	
8	5M-3062	CAPSCREW (3/8 - 16 X 3/4 G8 Z)	1	L	
9	8T-4896	HARD WASHER (3/8 Z)	1	L	
10	7K-1181	CABLE STRAP	8	L	
11	138-2435	CONTROL DECAL	1	L	
12	320-6687	TEMPERATURE AND FILTER DECAL	1	L	

CAT codes: L.

CONTROL GROUP

CONTROL GROUP - WINCH WIRING AND PARTS FOR NON-WINCH READY TRACTORS MANUFACTURED BEFORE OCTOBER 2012

Drawing 1 of 1



Ref.	Part number	Description	Qty	Code	Group page
1	112-6646	METRIC FLANGED LOCKNUT (M6 X 1)	4		
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3	279-2504	JOYSTICK	1		
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5	365-8755	CONSOLE WIRING HARNESS	1		
6	369-5910	FUEL TANK WIRING HARNESS	1		
7	4P-8134	CLIP	2		
8	5M-3062	CAPSCREW (3/8 - 16 X 3/4 G8 Z)	1		
9	8T-4896	HARD WASHER (3/8 Z)	1		
10	7K-1181	CABLE STRAP	8		
11	138-2435	CONTROL DECAL	1		
12	320-6687	TEMPERATURE AND FILTER DECAL	1		

CONTROL GROUP INSTALLATION

CONTROL GROUP INSTALLATION NON-WINCH READY BEFORE OCTOBER 2012

Drawing 1 of 1

PAS6
CONTROL GROUP
D6T Tier 4

Installation Notes - Non-Winch Ready before October 2012

Installation of this control group requires modification of ripper control console cover to allow fitment of the winch control joystick.

To avoid modification of the ripper control cover, it may be replaced with Caterpillar winch control specific console cover part no. 351-6442.

A template of the blade control opening can be used to help trace over existing ripper control opening as the winch control opening will be of identical shape and dimension.

Installation Instructions - Non-Winch Ready before October 2012

1. Remove plastic console cover
2. Remove ripper control lever or filler plate. Retain fasteners for re-use.
3. Drill ¼" holes in console in locations as shown.
4. Trace outline of area to be trimmed from console cover using dimension shown.
5. Install adapter plate (item 4) in place of ripper control plate removed in step 2 using original Caterpillar screws.
6. Orient control lever assembly so that wiring lead fits through notch in plate. Attached winch control lever assembly (item 3) to adapter plate using locknuts (item 1).
7. Attach 12-pin receptacle connector and 6-pin receptacle connector on console wiring harness (item 5) to the corresponding plug connectors on control lever wiring leads on the joystick.
8. Locate the 12-pin seat power socket receptacle below the console and attach the corresponding plug connector from wiring harness (item 5).
9. Using existing bolt attach ground lead of wiring harness to ground distribution boss near 12-pin seat power socket.
10. Route the fuel tank wiring harness (item 6) through tractor and out under fuel tank near right winch mounting bracket.
11. Attach the 12-pin plug connector and 4-pin plug connectors on the console wiring harness (item 5) to corresponding receptacle connectors on winch wiring harness (item 6).
12. Secure wiring harness to boss on top of right winch mounting bracket using capscrew (item 8), washer (9), clip (7), and zip tie (item 10) as appropriate.
13. Secure wiring harness between operator console and winch with zip ties (item 10) as appropriate.
14. Snap warning lights (item 2) into ¼" holes previously drilled. Attach spade sockets on wiring harness to warning light terminals as shown. Light terminals have no polarity.
15. Re-install plastic console cover.
16. Affix winch operation decal (item 11) near control lever as appropriate.
17. Affix filter and temperature warning light decal (item 12) near lights as appropriate. Ensure decal identifies warning lights correctly per wire colors as shown.

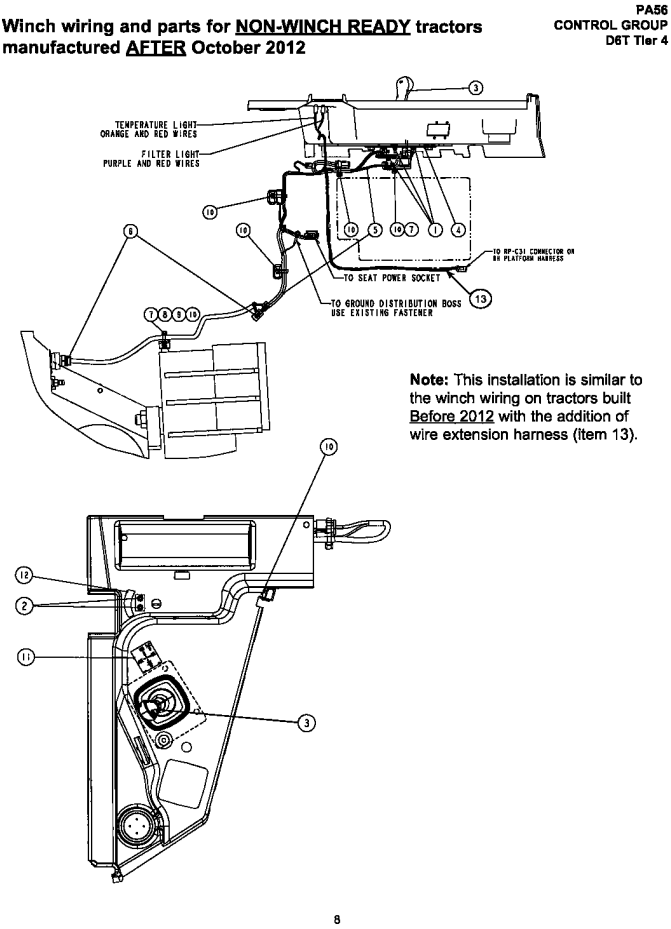
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Ref.	Part number	Description	Qty	Code	Group page
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CONTROL GROUP

CONTROL GROUP - WINCH WIRING AND PARTS FOR NON-WINCH READY TRACTORS MANUFACTURED AFTER OCTOBER 2012

Drawing 1 of 1

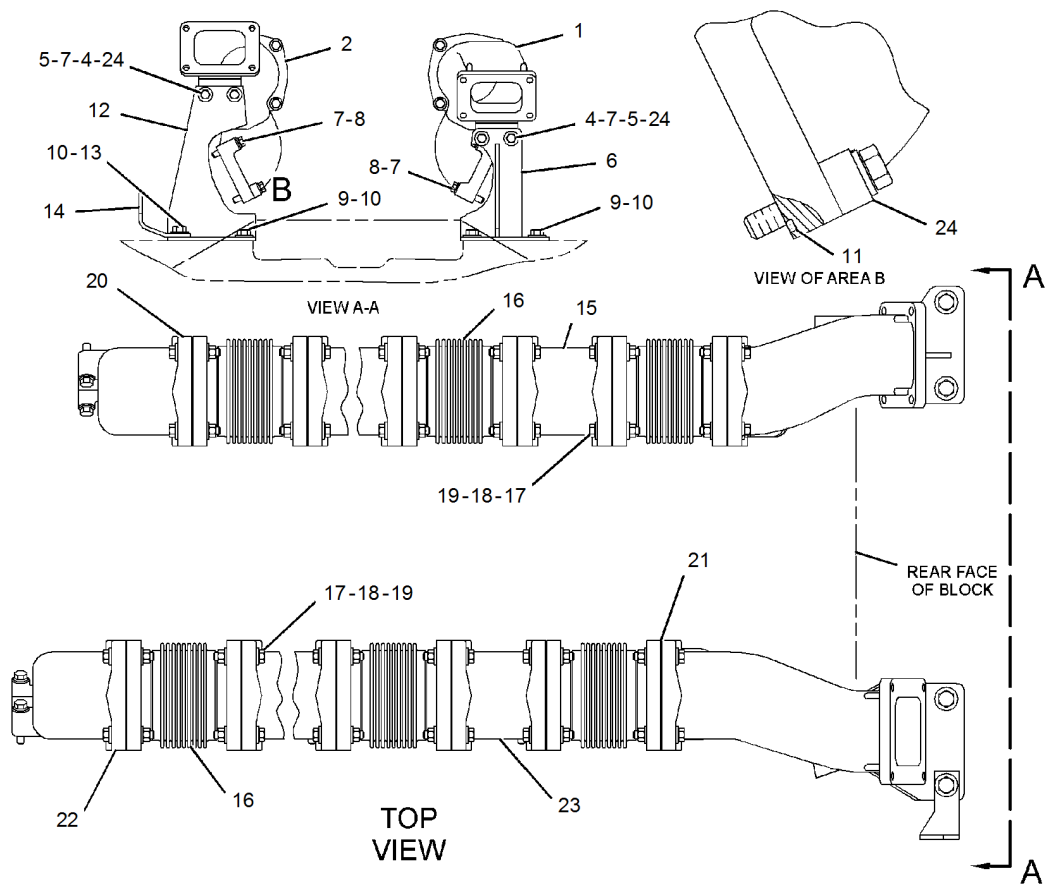


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6	369-5910	FUEL TANK WIRING HARNESS	1		
7	4P-8134	CLIP	2		
8	5M-3062	CAPSCREW (3/8 - 16 X 3/4 G8 Z)	1		
9	8T-4896	HARD WASHER (3/8 Z)	1		
10	7K-1181	CABLE STRAP	8		
11	138-2435	CONTROL DECAL	1		
12	320-6687	TEMPERATURE AND FILTER DECAL	1		
13	196-2695	2 WIRE EXTENSION HARNESS	1		

CONTROL GROUP INSTALLATION

CONTROL GROUP INSTALLATION NON-WINCH READY AFTER OCTOBER 2012

Drawing 1 of 1



Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP5820/SEBP58200007 yet.					

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AK7-SEBP5820

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