ENGINE OIL RECOMMENDATIONS

Case AKCELA No. 1 Engine oil is recommended for use in your Case engine. Case AKCELA No. 1 Engine Oil will lubricate your engine correctly under all operating conditions.

If Case AKCELA No. 1 Multi-Viscosity Oil is not available, use only oil meeting API engine oil service category CH-4 (preferred) or CG-4.



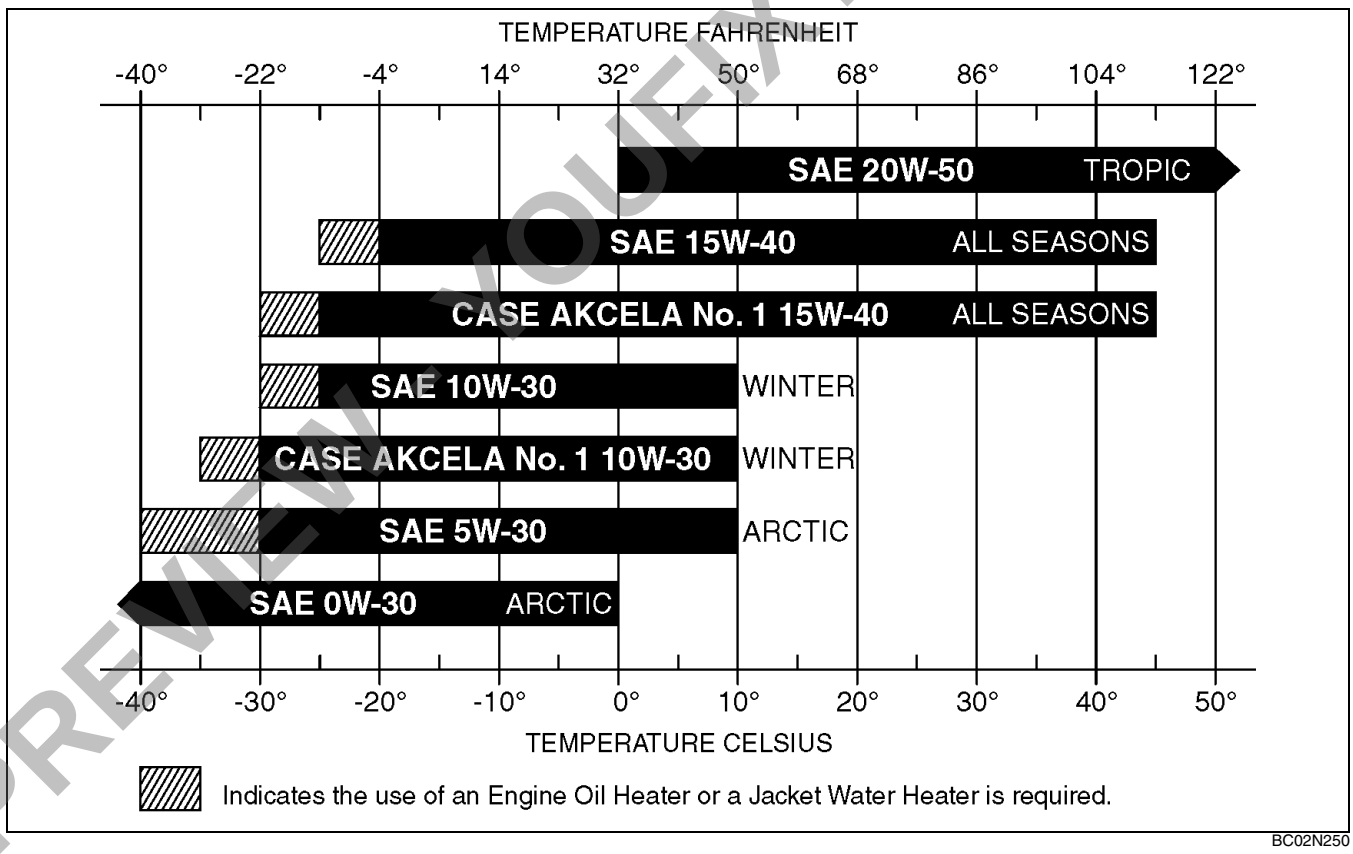
BD03A102



RH99K130

See the chart below for recommended viscosity at ambient air temperature ranges.

NOTE: *Do not put performance additives or other oil additive products in the engine crankcase. The oil change intervals given in this manual are according to tests with Case AKCELA lubricants.*



BC02N250

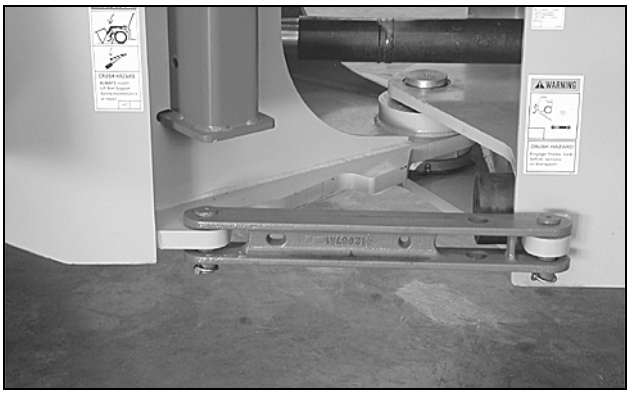
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ENGINE

Removal

STEP 1



BD03A040

Park machine on a level surface and lower bucket to ground. Put articulation lock in LOCKED position.

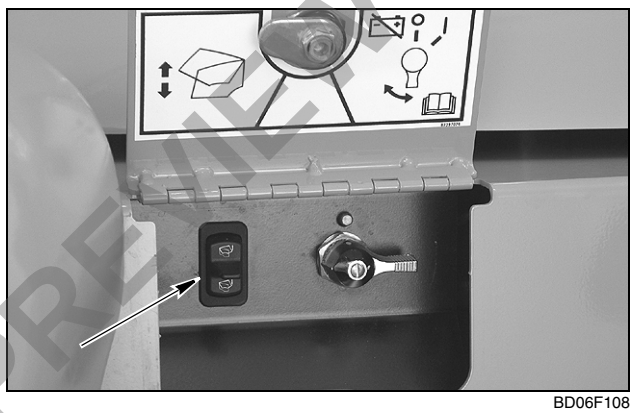
STEP 2

Stop engine. Actuate brake pedal several times to discharge brake accumulators. Put key switch in ON position and move loader control lever back and forth at least 30 times to release any pressure from hydraulic circuit. Put key switch in OFF position.

STEP 3

Slowly loosen the filler cap for hydraulic reservoir to release air pressure in hydraulic reservoir.

STEP 4



BD06F108

The master and hood raise switch are located by the battery box. Raise the hood with the hood lift motor. Put master disconnect switch in OFF position. Remove both battery covers and disconnect batteries from the machine.

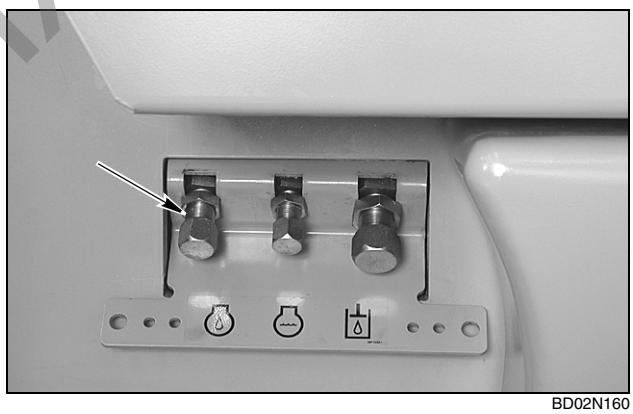
STEP 5



BD02N160

Put a 30 liter (32 U.S. quart) container below radiator drain. Remove radiator cap. Remove cap and drain coolant into container. Install cap after coolant has drained. Install radiator cap.

STEP 6



BD02N160

Put a 15.1 liter (16 U.S. quart) container below engine oil drain. Remove cap and drain oil into container. Install cap after oil has drained.

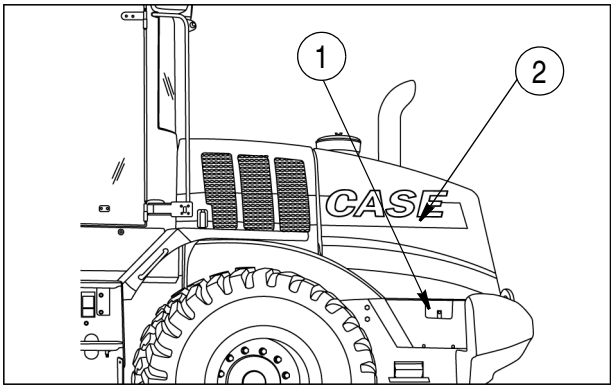
NOTE: *After draining oil disconnect drain hose from frame for removal with engine.*

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Primary/Secondary Fillter Element Disassembly

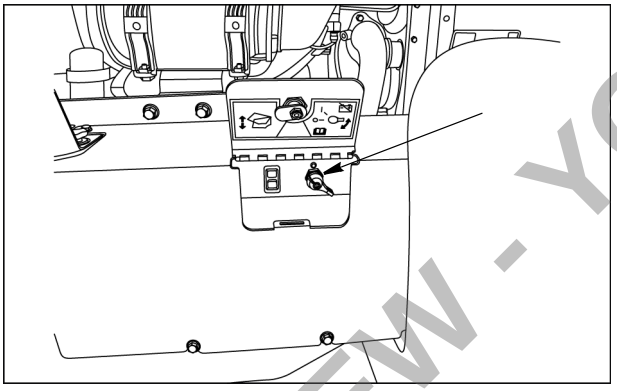
STEP 1



721F-8469.PNG

Raise engine compartment hood using controls located behind access cover (1). Air filter housing/element (2) is located in main engine compartment on left hand side of engine.

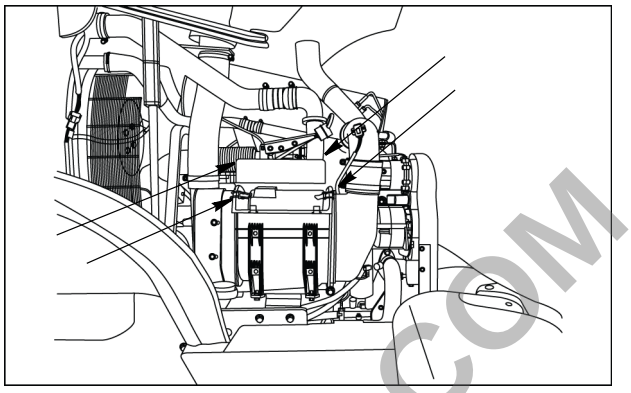
STEP 2



IMG_0099.PNG

Turn master electric switch “off”.

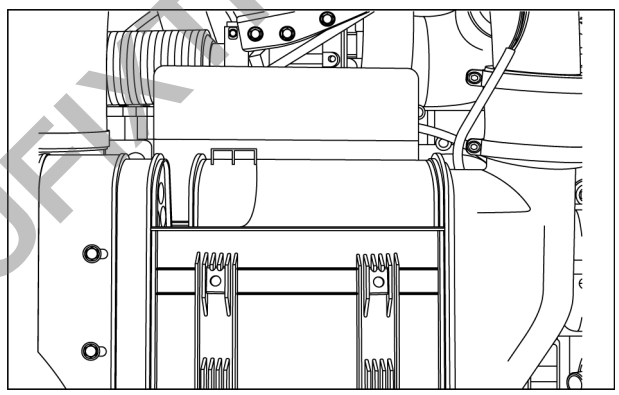
STEP 3



IMG_0115.PNGD

Release all clips securing air filter element housing cover.

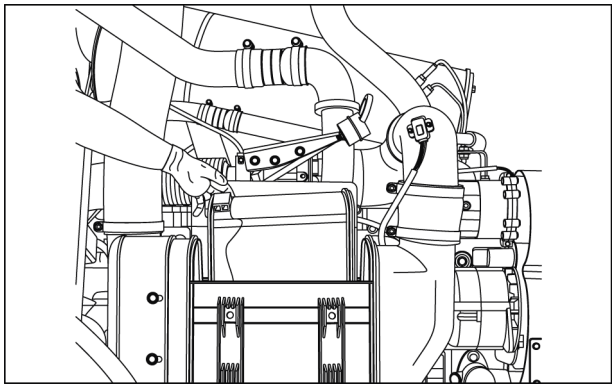
STEP 4



IMG_0142.PNG

Remove cover from air filter element housing.

STEP 5



IMG_0143A.PNG

Remove primary filter element by lifting up on handle

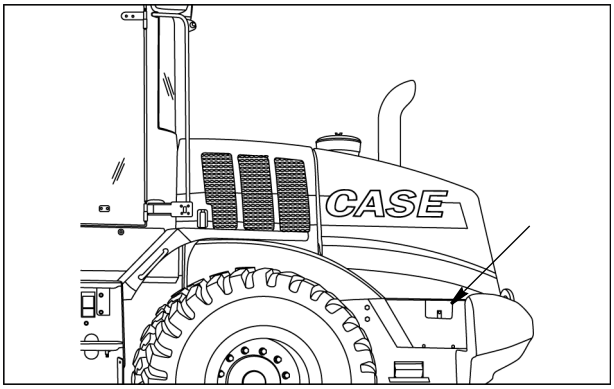
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INTAKE TEMPERATURE/HUMIDITY SENSOR

Removal

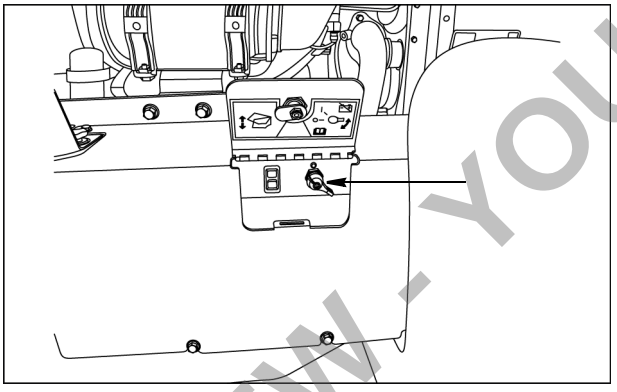
STEP 1



721F-8469.PNG

Raise the engine compartment hood using controls located behind the access cover.

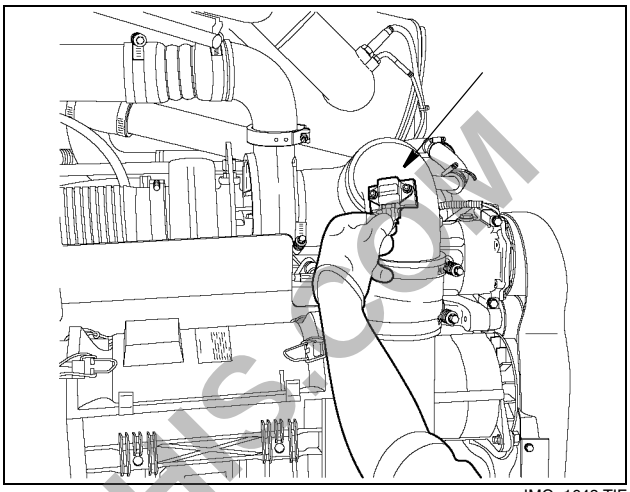
STEP 2



IMG_0099.PNG

Turn the master electric switch to the “off” position.

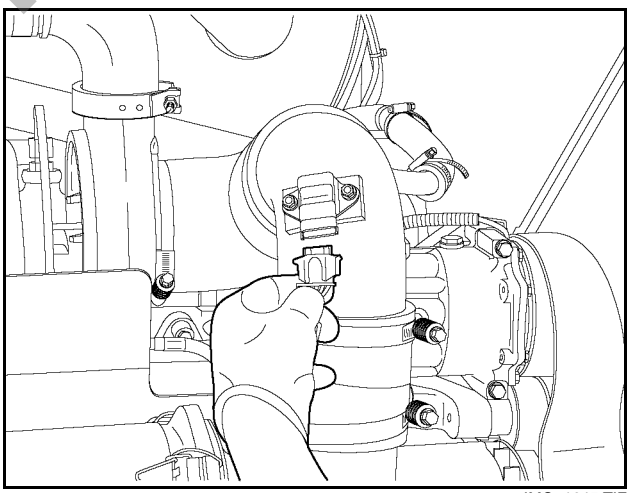
STEP 3



IMG_1643.TIF

Locate the intake temperature/humidity sensor on air intake pipe between the air filter housing and turbocharger.

STEP 4



IMG_1645.TIF

Disconnect wiring harness plug.

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STARTER

Removal

STEP 1

Park machine on a level surface and lower bucket to ground.

STEP 2



BD06F133

Raise the engine compartment with lifting motor. Place the master disconnect switch in the OFF position.

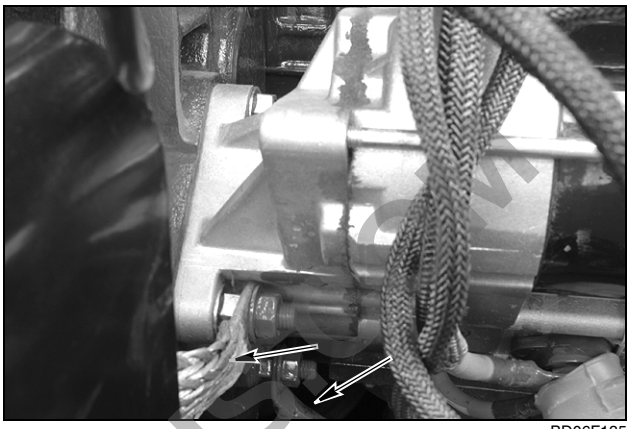
STEP 3



BD06F134

Place identification tags on the positive cables and remove the positive cables from the starter.

STEP 4



BD06F135

Remove the ground strap from the starter, remove the starter mounting bolts, remove the stater.

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ELECTRICAL WIRE IDENTIFICATION

Wire Identification Codes

21C Bk - 1.0

- 21C = Wire Name
- Bk = Wire Color
- 1.0 = Wire Size (mm^2)

Wire Size (mm^2)	0.8 mm	1.0 mm	2.0 mm	5.0 mm

Wire Color				
Bk = Black	DU = Dark Blue	S = Gray	LG = Light Green	K = Pink
T = Tan	W = White	N = Brown	G = Green	U = Blue
LU = Light Blue	Or = Orange	R = Red	P = Purple	Y = Yellow

Wire Identification			From Connector		To Connector	
Wire	**Circuit**	**Color, Size, and Material**	**Connector**	**Cav**	**Connector**	**Cav**
1		W 0.8 GXL Twist	JMP1, JSS Load Sense	A	JMP2, JSS Load Sense	C
2		Bk 0.8 GXL Twist	JMP1, JSS Load Sense	B	JMP2, JSS Load Sense	A
14	Alternator D+	Lg 1.0 SXL	AD, Alternator D+	1	ENG, Engine Cab1	26
30	Battery Sensing	R 1.0 SXL	Alt_5 Alternator D+	2	AB_5 Alternator B+	1
31	EDC Relay Control	OR 0.8 GXL	EDC7, Engine Controller	13	SPL_EDC4, Ultrasonic	A
38	Doser Valve B+	R 0.8 GXL	DNOX2, NOX Controller	12	DEFDM, Doser Metering VLV	1
42	Work Lights Switched Fused Pwr	R 2.0 GXL	SPL-WL, Ultrasonic	A	ECC, Elect Center C	A2
44	Brake Lt Control Power	T 1.0 SXL	BTM_C, Cab bottom bulkhd	J	PBL, Brake Light Press Switch	2
49	Back Lt Power	DU1.0 GXL	D-OR, Diode OR	C	SPL-BCK-LGT, Spl Back Lgt Pwr	A
52	Fan Reverse LSD	W 0.8 TXL	AIC-1, Adv Instr Clust 1	23	ECB, Electrical Center B	B8
56	Fan Control PWM	W 0.8 TXL	CAB-E, Cab Engine	23	AIC-1, Adv Instr Clust 1	26
57	Pin Engage Sol Pwr	W 1.0 SXL	FRONT, Cab Front Chassis	17	YPE, Pin Engage Jumper	A
58	Ride Control Sol Pwr	W 1.0 SXL	PRBF, Rollback Press Sw	A	YRC, Ride Control Option	1
64	Horn Power	Or 1.0 SXL	FRONT, Cab Front Chassis	13	HN1, Horn Power	1
460	Fan Speed Sensor Signal	Y 1.0 SXL	Eng, Engine-Cab1	16	FSS, Fan Speed Sens	1
016B	Pedal Sensor Grnd	DU 0.8 GXL	BTM_C, Cab Bottom Bulkhd	D	BPP, Pedal Position	6
017A	Fan Speed Sensor GND	BK 1.0 SXL	GND_ENG7, Tranny, Cool Temp	1	FSS, Fan Speed Sens	2
0D_C	DIAG2 GRND	BK 0.8 GXL	DIA_2, Diagnostic	A	GND_CAB_SPL, Cab Grnd Splice	D
0E_A	EXHT Temp Up GND	BK 0.8 GXL	UTS, Upstream Temp Sense	2	DNOX2, Nox Controller	17
0_29	RTT/Float GND	BK 0.8 GXL	SFL, Return to Travel SW	4	SPL_BCK_LT_GD2, SPL_BACK LGT GRND	K
0 29	RTT/Float Ground	Bk 0.8 GXL	SFL, Return To Travel Sw	4	SPL-BCK-LT-GD2, Spl Back Lgt Gnd	K
0 AA	Proximity Switch Grnd	Bk 1.0 SXL	PXH, Height Control RTT	B	SPL-A2, Ultrasonic	A
0 AB	Proximity Switch Grnd	Bk 1.0 SXL	SPL-A2, Ultrasonic	A	GND-FC, Ground A	1
0 AC	Proximity Switch Grnd	Bk 1.0 SXL	PXF, RTD	B	SPL-A2, Ultrasonic	A
0 AD	Ride Control Ground	Bk 1.0 SXL	YRC, Ride Control Option	2	SPL-A1, Ultrasonic	A
0 AE	Pin Engage Ground	Bk 1.0 SXL	SPL-A1, Ultrasonic	A	YPE, Pin Engage Jumper	B

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SAFETY RULES

WARNING: *Never try to charge the battery if the electrolyte in the battery is frozen.*

47-83A

WARNING: *Never cause sparks to occur or smoke near batteries that are charging or have been recently charged.*

13-8A

WARNING: *Disconnect the ground cable first when the battery cables are disconnected from the battery.*

Connect the ground cable last when the battery cables are connected to the battery.

47-55A

WARNING: *Some batteries have a ventilation tube. If there is battery acid in the ventilation tube, this battery acid can be released when the battery is turned upside down. If you turn the battery upside down, make sure that the end of the ventilation tube is away from you and away from any other people in the area. Battery acid can cause severe burns.*

48-57B

WARNING: *Battery acid causes severe burns. Batteries contain sulfuric acid. Avoid contact with skin, eyes, or clothing. Antidote: EXTERNAL-Flush with water. INTERNAL-Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately. Eyes: Flush with water for 15 minutes and get prompt medical attention.*

Batteries produce explosive gases. Keep sparks, flame, and cigarettes away. Ventilate when charging or using in enclosed area. Always shield eyes when working near batteries.

Keep out of reach of children.

D-47-53A

SPECIAL TOOLS



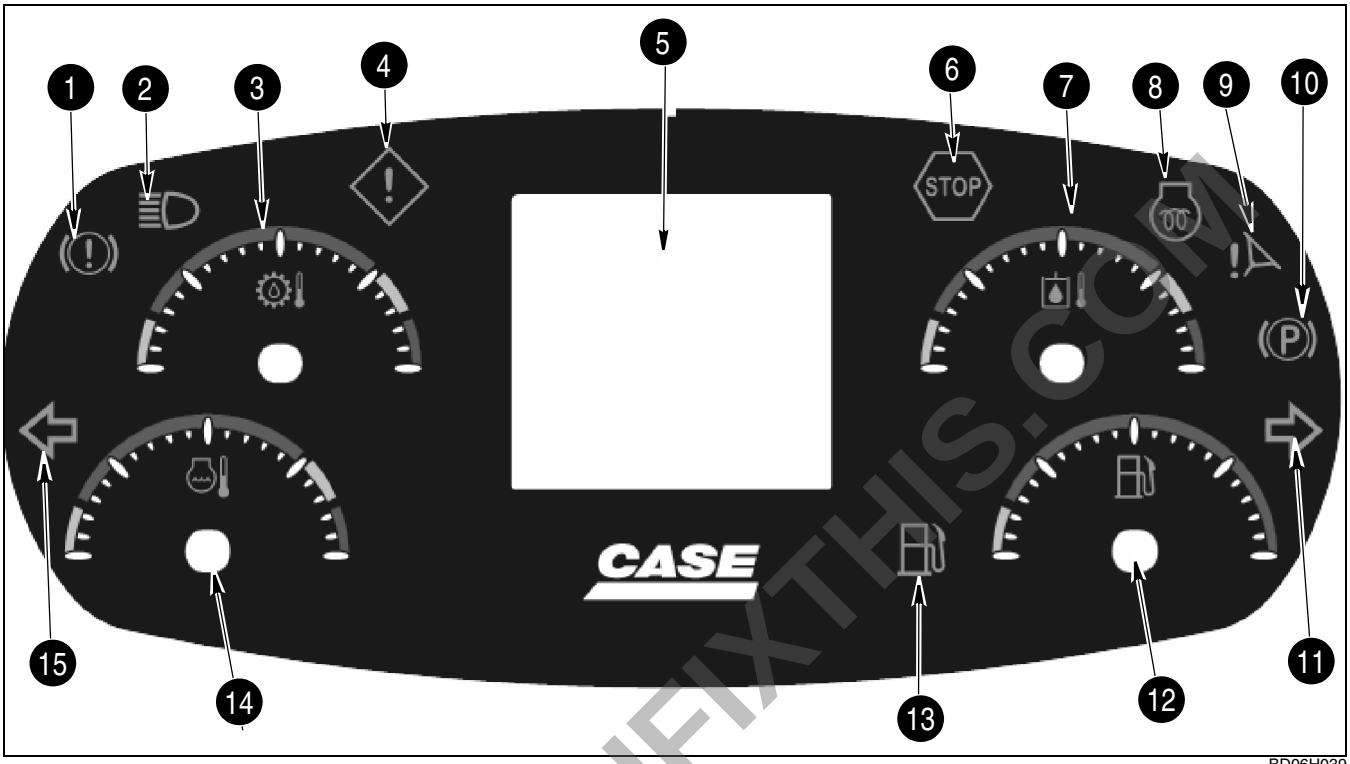
B795328

The CAS10147 tester is used to do the Capacity (Load) Test. This tool is first used on Page 6.

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INSTRUMENT CLUSTER



BD06H039

1. LOW BRAKE PRESSURE INDICATOR
2. HIGH BEAM INDICATOR
3. TRANSMISSION OIL TEMPERATURE GAUGE
4. CAUTION MASTER INDICATOR
5. MULTI FUNCTION LCD DISPLAY
6. STOP MASTER INDICATOR
7. HYDRAULIC OIL TEMPERATURE GAUGE
8. WAIT TO START ENGINE PREHEAT
9. LACK OF AUX STEER PRESSURE (OPTIONAL)
10. PARKING BRAKE INDICATOR
11. RIGHT TURN INDICATOR
12. FUEL LEVEL GAUGE
13. FUEL LEVEL AT MINIMUM
14. ENGINE COOLANT TEMPERATURE GAUGE
15. LEFT TURN INDICATOR

The instrument cluster monitors a number of functions and can be tailored to fit the operator's preferences The instrument cluster not only monitors machine functions, it warns the operator when caution is needed due to a possible malfunction and when immediate action is needed due to a possible critical malfunction. When the machine is started, the instrument cluster will perform the following self-test:

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STEERING CONTROL VALVE

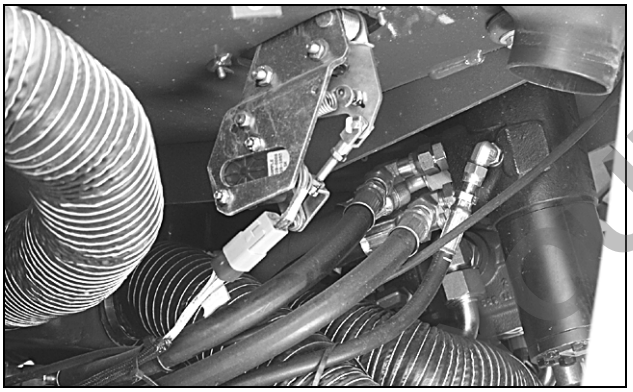
Removal

STEP 1
Remove the cab skirts from the cab or canopy.

STEP 2
Remove all dirt and grease from steering control valve.

STEP 3
Remove hydraulic reservoir fill cap, attach a vacuum pump to the reservoir, start the pump.

STEP 4
Tag hoses connected to steering control valve.

STEP 5

BD06G262

Disconnect hoses from steering control valve, cap or plug the fittings and hoses, turn off the vacuum pump.

STEP 6


BD06G244

Remove the center cap from the steering wheel.

STEP 7


BD06G245

Remove the mounting nut and washers from the steering shaft.

STEP 8


BD06G246

Remove the steering wheel from the shaft.

STEP 9


BD06G247

Remove the six mounting screws from the instrument cover.

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JOYSTICK STEERING SYSTEM (JSS)

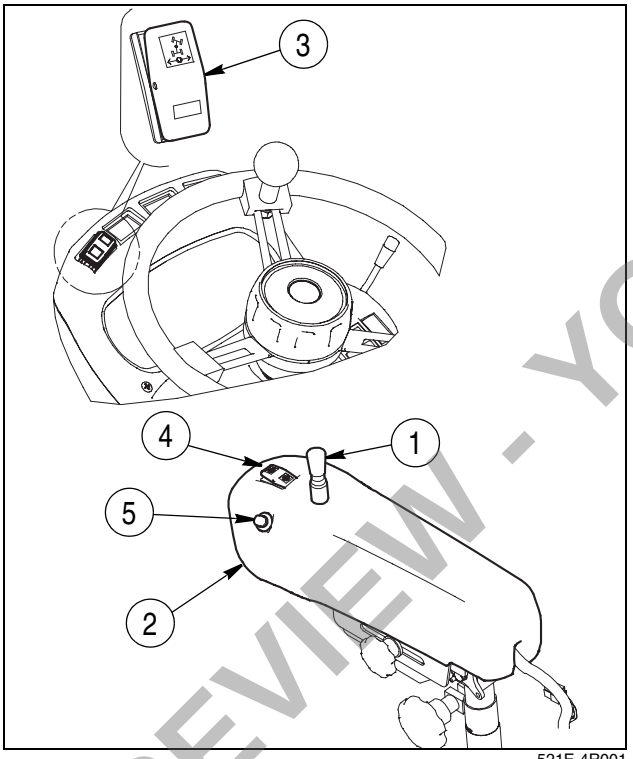
Description of the JSS

The JSS is mounted in parallel with the standard steering system. The standard steering system always has priority. If during joystick operation, the primary steering wheel is moved, steering will revert to primary steering. Joystick steering is designed for short, repetitive machine operations.

⚠ WARNING ⚠

Do not use joystick steering if operating at speeds over 20 km/h (12.4 mph). Always use the primary steering wheel at higher speeds for optimum control of the machine. Failure to comply could result in machine damage, death or serious injury.

M1349



521E-4R001

1. JOYSTICK STEERING CONTROL
2. ARMREST
3. MONITOR
4. FORWARD - NEUTRAL- REVERSE SWITCH
5. KICK-DOWN BUTTON

Activation logic of the software and joystick steering

To activate the joystick steering system, it is necessary that the machine meet specific conditions prior to activation. The software will run a preliminary test to verify the machine is in the preset conditions and check the condition of the JSS system.

Preliminary check

Preset condtion must be met by:

- left armrest completely lowered
- gear lever in neutral
- equipment locking switch disenabled
- pilot pressure switch on
- joystick steering switch in neutral
- machine is stationary.

System efficiency check

- with the JSS off, the pilot pressure must be less than or equal to 8 bar (115 psi).
- the software monitors the armrest position switch. When the JSS is turned on and during operation, the switch position is checked. If the position of the armrest is raised or the switch is shorted, the system will deactivate.

After all conditions have been met, the JSS will be powered by closing PIN 1:21 of the output AIC that switches over the relay K2 enabling the electric supply of the JSS with consequent activation of the system under safety conditions.

The system will stay active if the following conditions are maintained:

- the left armrest stays lowered
- the main gear lever stays in neutral
- the steering wheel stays inactive
- the control switch stays ON
- no system errors occur

Joystick steering is turned off as soon as:

- the left armrest is raised.
- the gearbox / main lever control is moved from neutral to forward or reverse drive.
- the steering wheel is operated.
- the proportional valve suffers trouble.
- system errors occur.
- the JSS switch is disconnected.
- ignition turned off.

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TRANSMISSION

Removal

STEP 1

Park the machine on a level surface and lower the bucket to the ground. Stop the engine and apply the parking brake.

STEP 2

Place the master disconnect switch in the OFF position.

STEP 3

Refer to Section 9007 and remove ROPS cab or ROPS canopy.

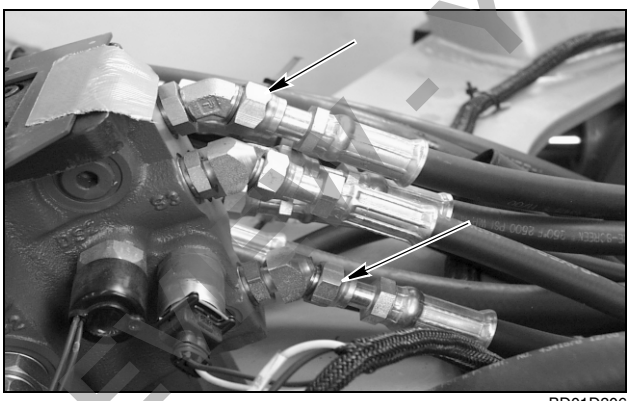
STEP 4

Refer to Section 8001 and remove the hydraulic pump.

STEP 5

Put a 25.5 liter (27 quarts) container under transmission drain plug. Remove drain plug and drain transmission oil. Install drain plug after oil has drained.

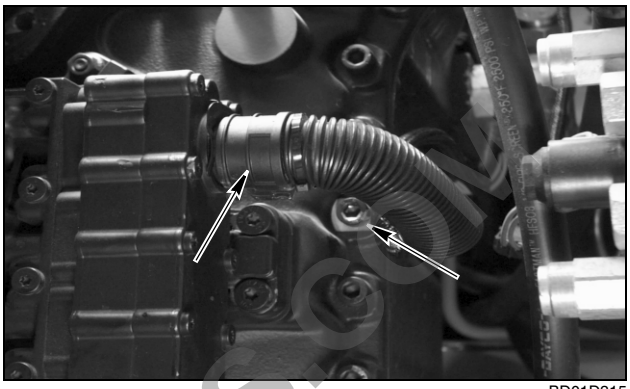
STEP 6



BD01D306

Identify, tag, and disconnect brake pump pressure hose and brake to hydraulic reservoir hose. Position hoses away from transmission. Remove and discard O-ring face seals from fittings. Plug hoses and cap fittings to prevent entry of foreign matter into hydraulic system.

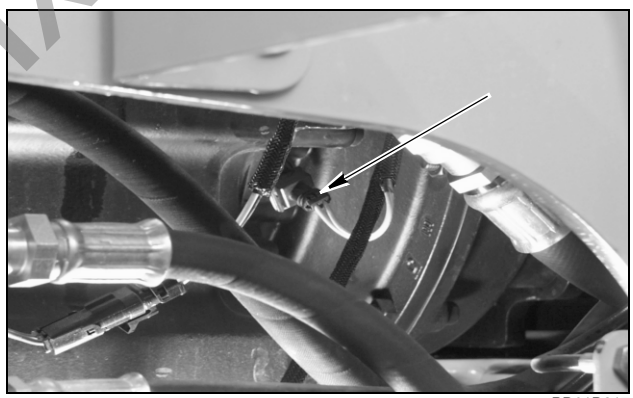
STEP 7



BD01D315

Disconnect transmission wiring harness connector from control valve connector. Remove socket head bolt securing wiring harness clamp. Move wiring harness away from transmission.

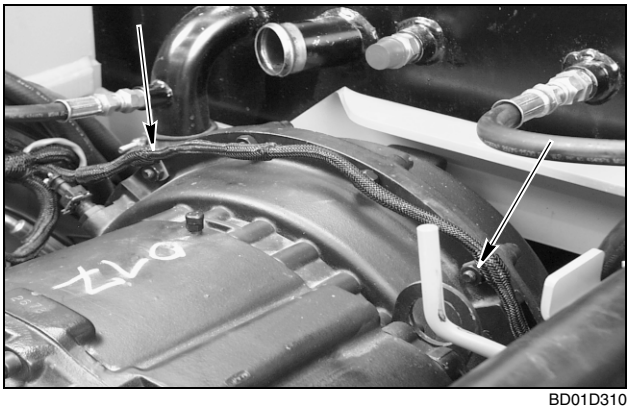
STEP 8



BD01D317

Just above where clamp was installed, tag and disconnect transmission wiring harness connector from temperature sensor. Move wiring harness away from transmission.

STEP 9



BD01D310

Remove two socket head bolts securing transmission wiring harness clamps.

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DISASSEMBLY

1.0 Electro-hydraulic control and oil filter (replaceable filter)

STEP 1

1.1 Removal of filter

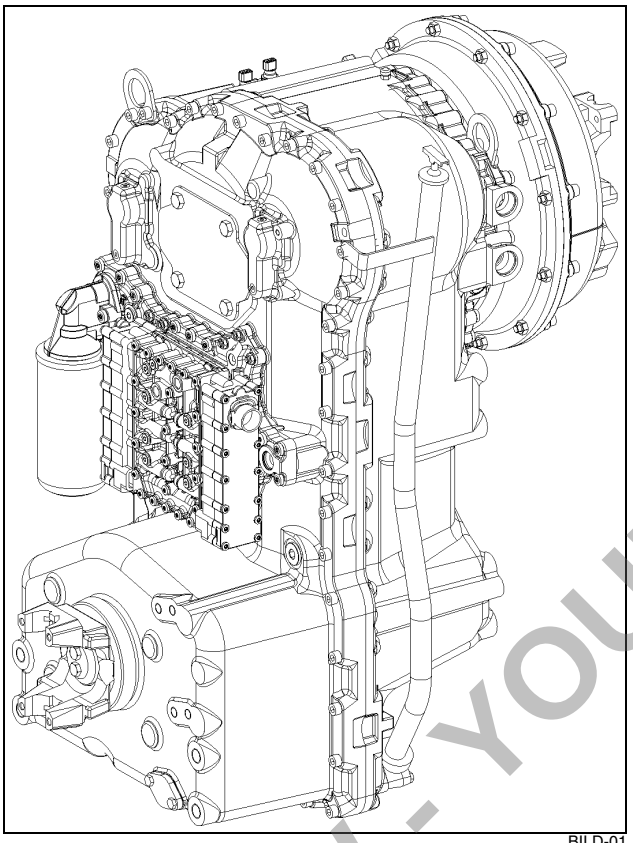


BILD-01

Fasten transmission on assembly stand CAS2801 or similar tool. Drain oil prior to starting disassembly.

WARNING: *Dispose of oil according to legal requirements.*

STEP 2

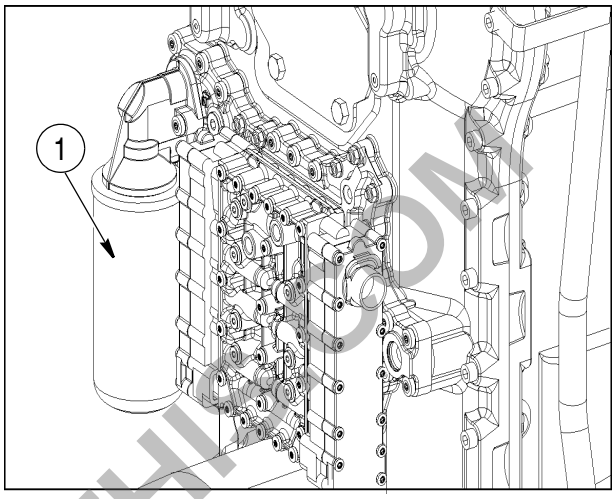


BILD-02

Remove and properly discard filter (1).

STEP 3

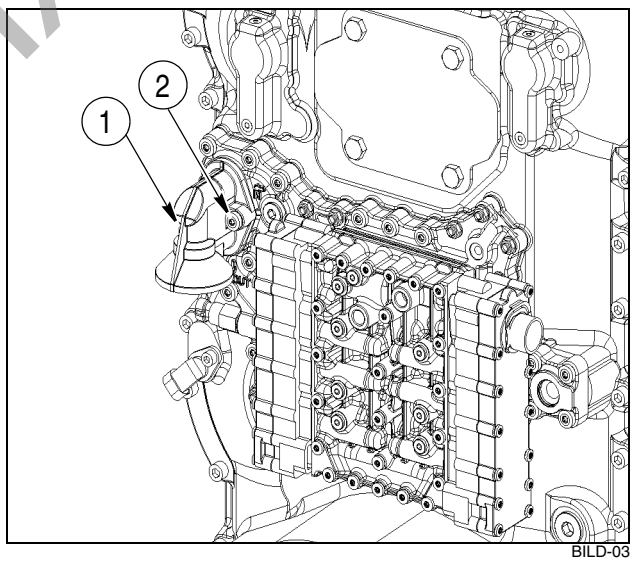


BILD-03

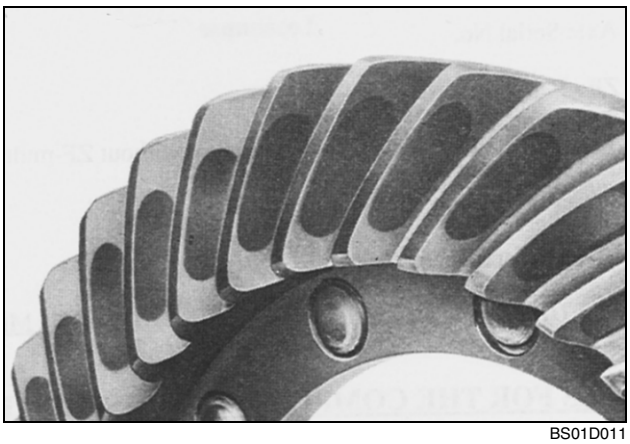
Remove Torx bolts (2) and separate filter head (1) from transmission. Remove and discard O-rings.

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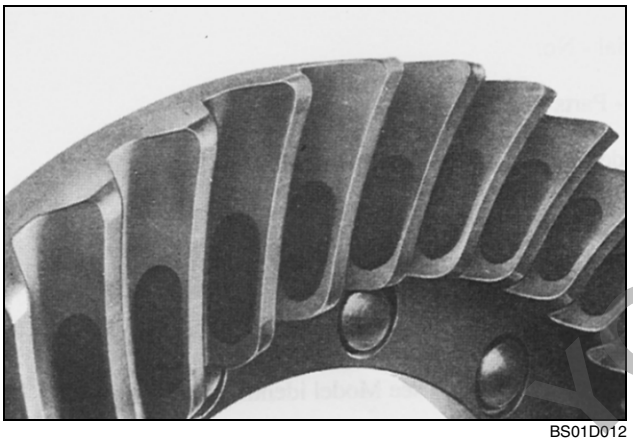
GEAR TOOTH CONTACT PATTERNS

Ideal Tooth Contact Pattern



BS01D011

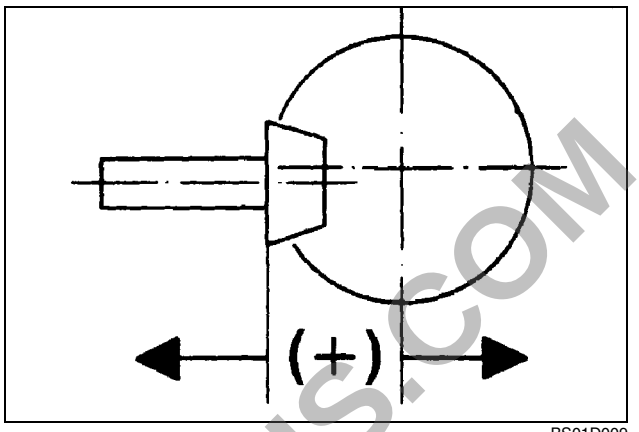
COAST SIDE (CONCAVE)



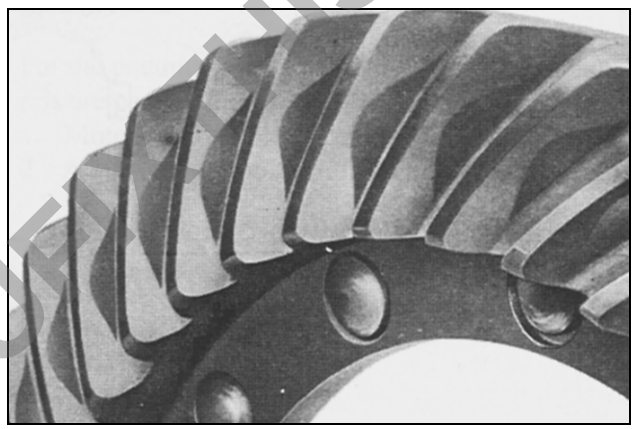
BS01D012

DRIVE SIDE (CONVEX)

Pinion Distance Must Be Increased

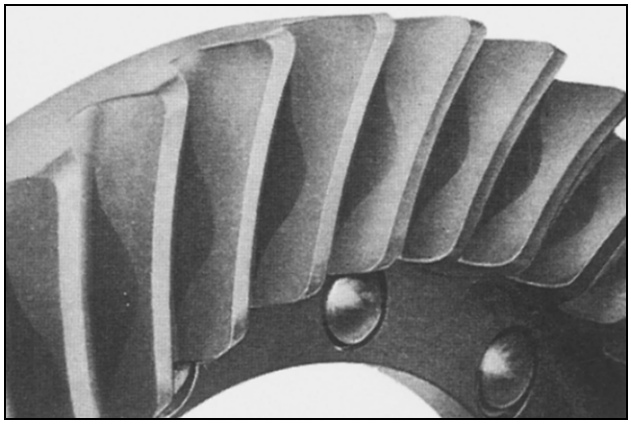


BS01D009



BS01D013

COAST SIDE (CONCAVE)



BS01D014

DRIVE SIDE (CONVEX)

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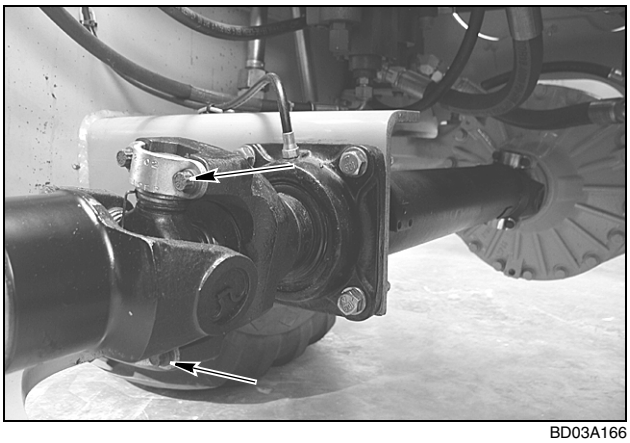
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FRONT DRIVE SHAFT

Removal

NOTE: *The 921F Series machines use mechanical style yokes (no bearing straps) and may appear different from the machine pictured.*

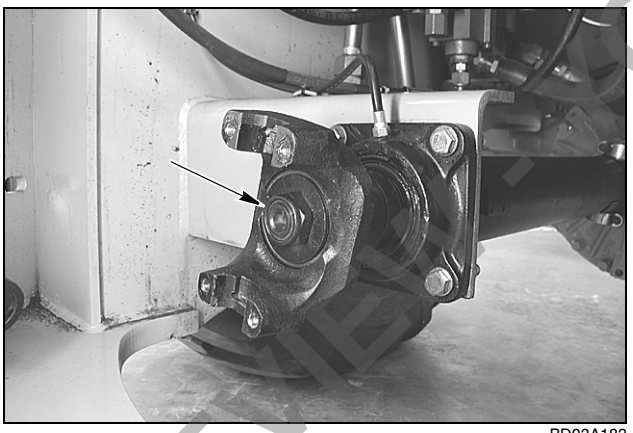
STEP 1



BD03A166

Loosen and remove the bolts and straps that fasten the center drive shaft to the yoke of the front drive shaft.

STEP 2



BD03A183

Remove the lock nut that fastens the yoke to the front drive shaft.

STEP 3

Make an alignment mark on the yoke and the end of the front drive shaft to make sure that the yoke is installed correctly.

STEP 4

Use an acceptable puller and remove the yoke from the end of the front drive shaft.

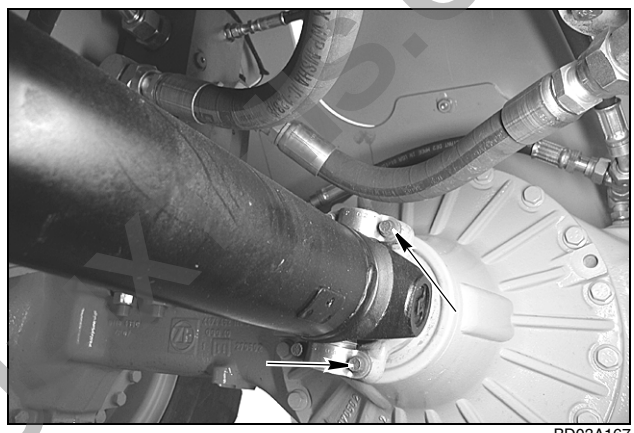
STEP 5

Loosen the set screws that secure the center bearing to the front drive shaft.

STEP 6

Remove any paint or rust from the rear of the front drive shaft and apply WD40 or similar oil to loosen any rust between the inner race and the front drive shaft.

STEP 7



BD03A167

Loosen and remove the bolts and straps that fasten the front drive shaft to the front axle.

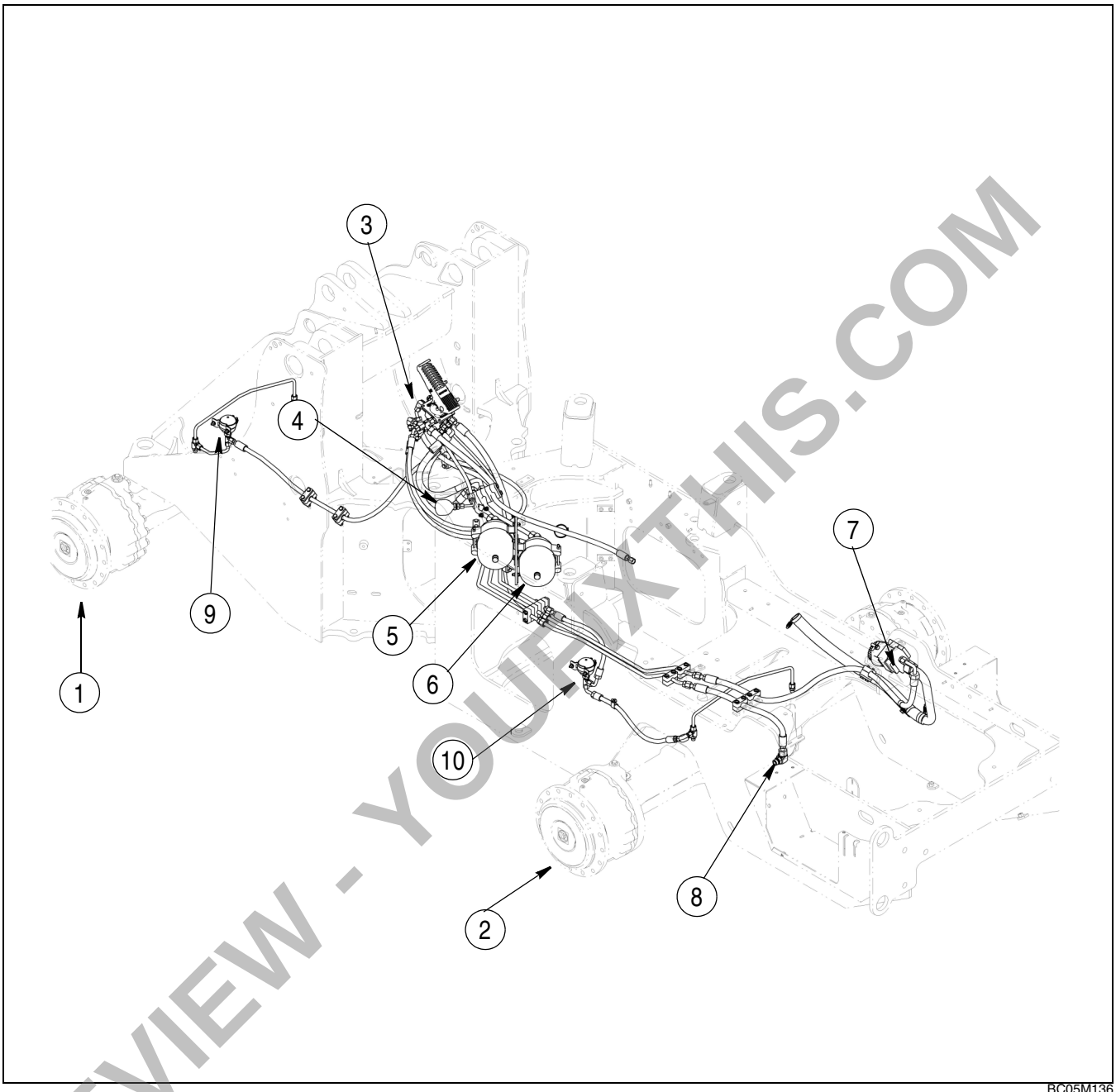
STEP 8

Use a prybar to disengage the front drive shaft from the front axle and remove the front drive shaft from the machine.

NOTE: *If necessary, use a brass hammer to drive the front drive shaft out of the center bearing.*

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BC05M136

1. FRONT AXLE
2. REAR AXLE
3. BRAKE VALVE
4. PARKING BRAKE ACCUMULATOR
5. FRONT ACCUMULATOR
6. REAR ACCUMULATOR
7. BRAKE PUMP
8. CONNECTOR TO FAN VALVE
9. FRONT AXLE DAMPING ACCUMULATOR
10. REAR AXLE DAMPING ACCUMULATOR

COMPONENT LOCATION ILLUSTRATION

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LOADER CONTROL VALVE

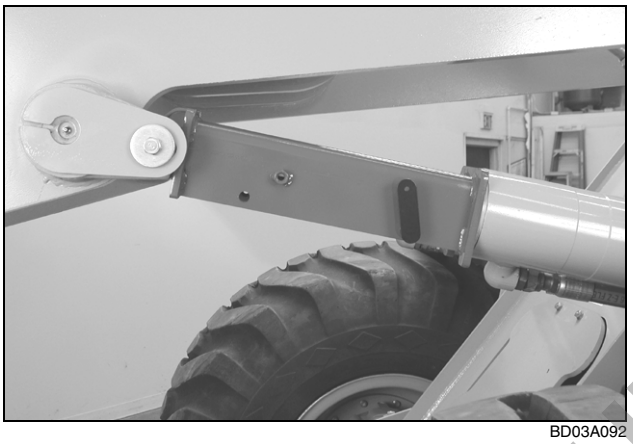
Removal

STEP 1

Park the machine on a level surface.

IMPORTANT: *If machine is equipped with quick-attached components, disconnect them from machine prior to proceeding.*

STEP 2



BD03A092

Raise the lift arms and install the safety link on the lift arm cylinder.

STEP 3

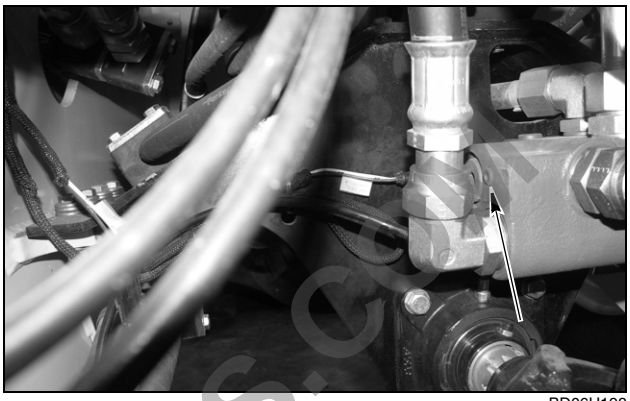
Stop the engine and apply the parking brake.

IMPORTANT: *With the engine NOT running, pump the brake repeatedly to be sure the brake accumulators have no hydraulic pressure, put the ignition switch in the ON position then move the loader control valve back and forth several times to release any hydraulic pressure in the pilot control circuit, turn ignition switch OFF.*

STEP 4

Place the master disconnect switch in the OFF position.

STEP 5



BD06H198

Relieve the pressure in the ride control accumulator with the manual bleeder valve located on the top of the ride control valve. Remove the plug and turn the valve two turns counter-clockwise.

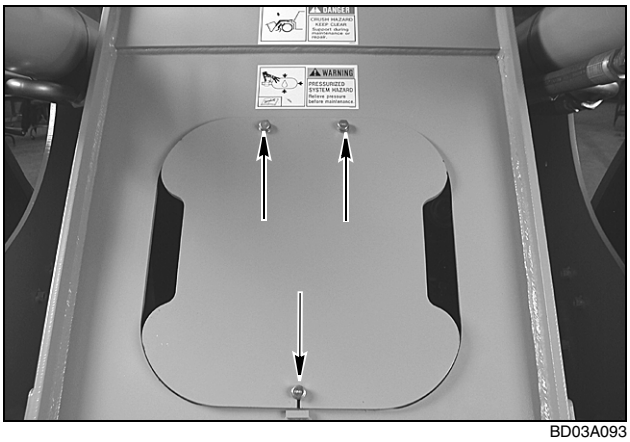
STEP 6

Loosen the filler cap on the reservoir to release the air pressure in the reservoir.

STEP 7

Drain the hydraulic reservoir.

STEP 8



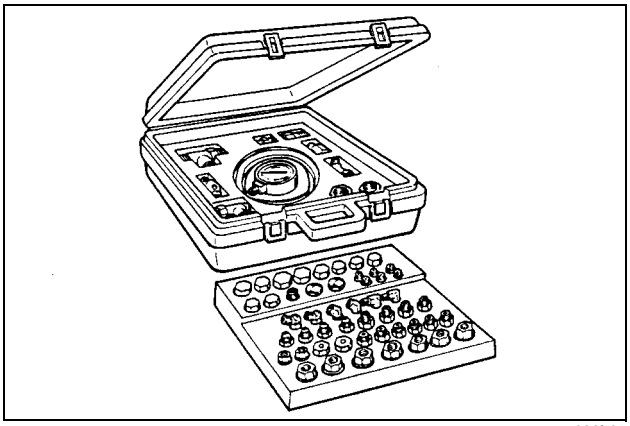
BD03A093

Loosen and remove the bolts and washers that fasten the access cover plate for the loader control valve. Remove the cover plate.

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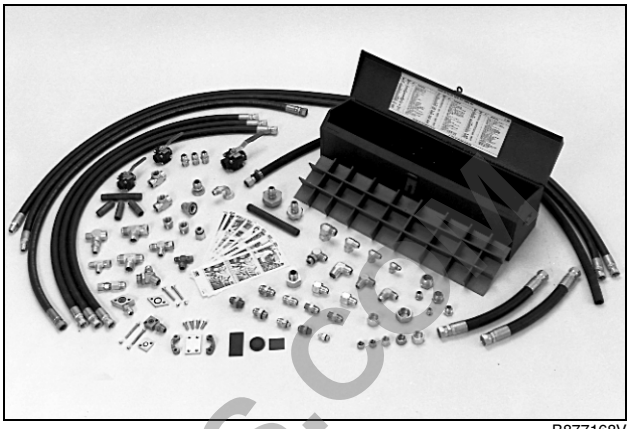
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SPECIAL TOOLS



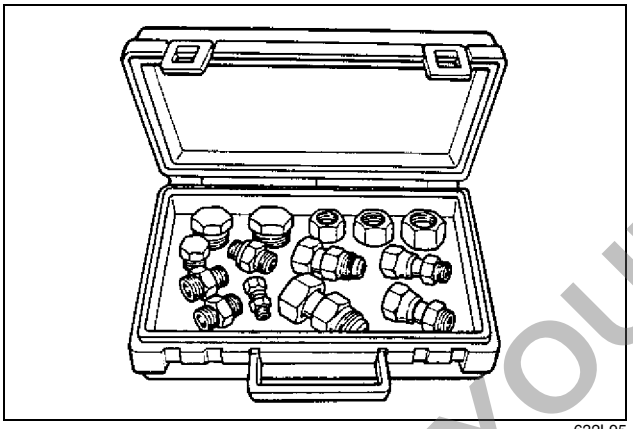
633L95

CAS-1904 PRESSURE FITTING KIT



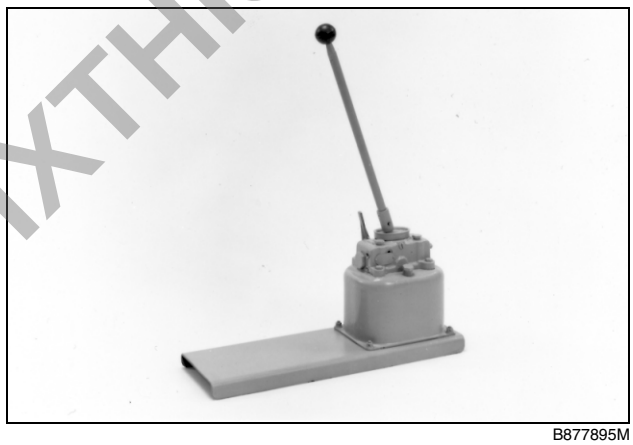
B877168V

CAS-1808 FLOWMETER FITTING KIT



632L95

CAS-1906 PRESSURE FITTING KIT



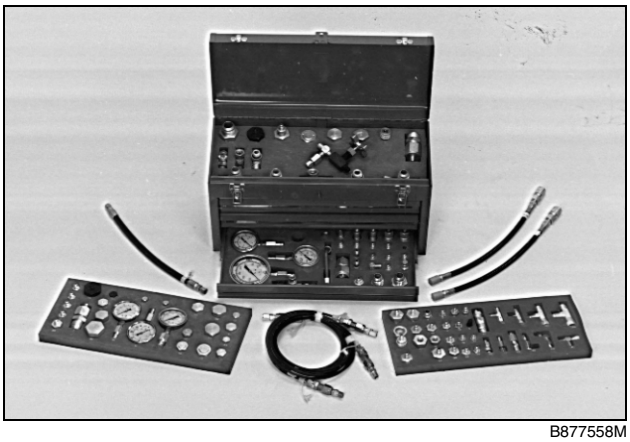
B877895M

CAS-10090 HAND PUMP



B785789M

CAS-10280 FLOWMETER



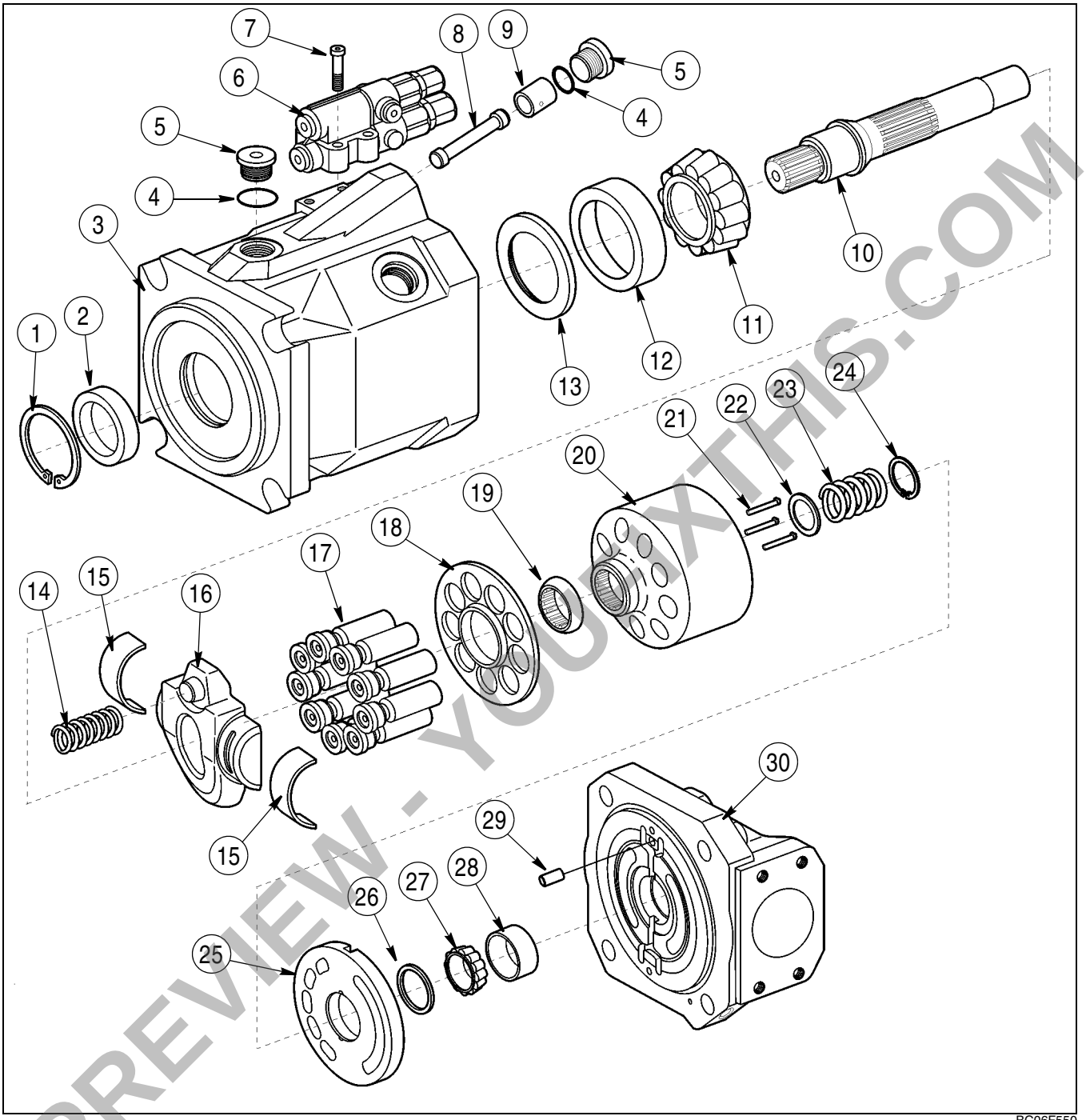
B877558M

CAS-1804 PRESSURE FITTING KIT

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EQUIPMENT PUMP

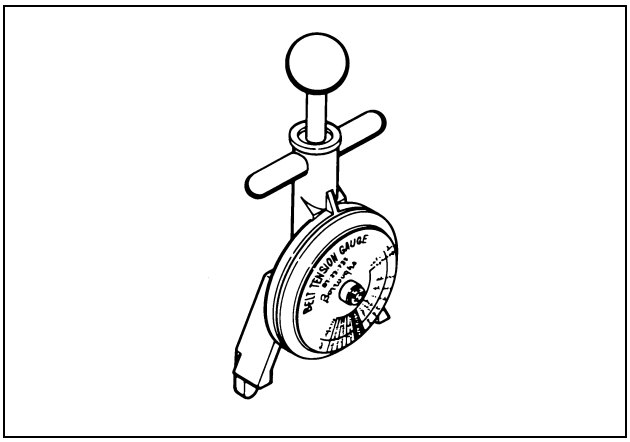


BC06F550

1. SNAP RING
2. SEAL
3. MAIN BODY
4. O-RING
5. PLUG
6. CONTROL VALVE
7. CAP SCREW
8. PISTON ROD
9. CONTROL PISTON
10. SHAFT
11. TAPERED BEARING
12. BEARING RACE
13. SHIM
14. SPRING
15. HALF BEARING
16. SWASH PLATE
17. PISTONS
18. RETAINING PLATE
19. BALL
20. CYLINDER
21. PRESSURE PINS
22. BACKUP PLATE
23. SPRING
24. SNAP RING
25. PORT PLATE
26. SHIM
27. TAPERED BEARING
28. BEARING RACE
29. DOWEL PIN
30. END COVER

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299L7C

BELT TENSION TOOL CAS-10808



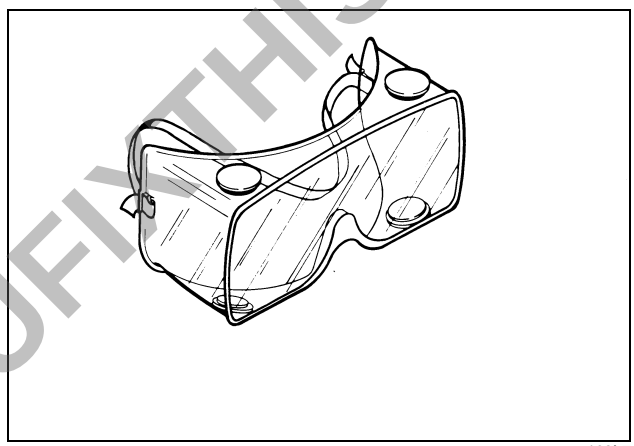
A22094

REFRIGERANT RECOVERY, RECYCLING AND CHARGING STATION, OEM-1415



A22090

ELECTRONIC LEAK DETECTOR OEM-1437



109L7

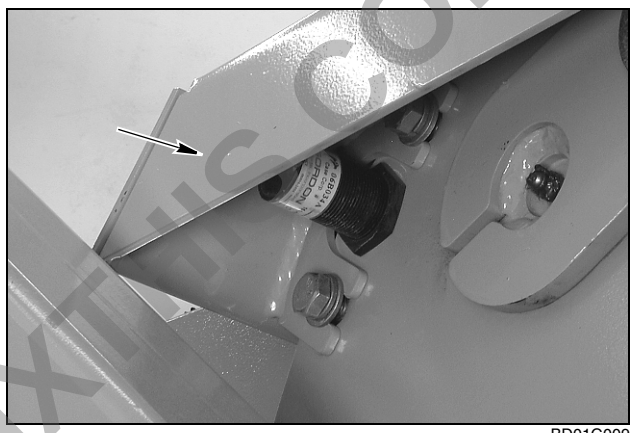
SAFETY GOGGLES CAS-10073-3

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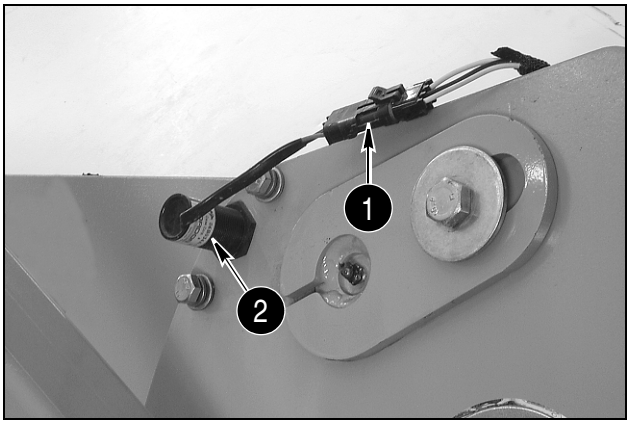
REMOVING THE LOADER FRAME

1. Park the machine on a level surface and apply the parking brake. Roll the bucket all the way forward and lower the bucket to the floor. Stop the engine.
2. Loosen the filler plug in the reservoir to release the air in the reservoir.
3. Fasten a chain hoist to the cross member (1) of the loader frame (2), refer to the illustration on page 8.
4. Loosen and remove the bolt (12), flat washer (13), and spacer (14) that fasten the pivot pin (3) to the piston rod yoke of the right lift cylinder (4).
5. Use an acceptable driver and drive the pivot pin (3) out of the piston rod yoke of the right lift cylinder (4). Do not remove the driver.
6. Repeat Steps 4 and 5 for the left lift cylinder (6).
7. Start the engine. Roll the bucket back and lower the bucket so that the bucket is flat on the floor and fasten the chain hoist to a lift cylinder (4 or 6).
8. Raise the lift cylinder (4 or 6) slightly and remove the driver.
9. Repeat steps 7 and 8 for the other lift cylinder (4 or 6).
10. Connect the chain hoist to the bucket cylinder (8).
11. Loosen and remove the bolt (15), flat washer (16), and spacer (17) that fasten the pivot pin (7) for the piston rod eye of the bucket cylinder (8) to the bell crank (11).
12. Use an acceptable driver and drive the pivot pin (7) out of the piston rod eye of the bucket cylinder (8).
13. Raise the bucket cylinder (8) and use a chain or other acceptable holding equipment to hold the bucket cylinder (8) in place.
14. If the machine is equipped with auxiliary hydraulics, disconnect the two hoses from the tubes at the bracket on the right side of the loader frame (2). Install caps on the hoses and plugs in the tube fittings.
15. If the machine is equipped with front lamps, loosen and remove the cap screws and lock washers that fasten the lamp brackets to the front frame. Put the lamp brackets on the fenders.
16. Connect the chain hoist to the loader frame (2).
17. Loosen and remove the bolt (19), flat washer (20) and spacer (21) that fasten the pivot pin (9 or 10) to the front frame.
18. Raise the loader frame slightly. Use an acceptable driver and drive the pivot pin (9 or 10) out of the front frame. Do not lose the washers (18) and wipers (22) between the front frame and the loader frame (2).



BD01G009

19. Remove the proximity switch cover. Left-hand side of the machine only.



BD01G010

1. ELECTRICAL CONNECTION 2. PROXIMITY SWITCH

20. Disconnect the electrical connector (1), remove the lock nut from the proximity switch (2) and remove the proximity switch (2) from the machine. Left-hand side of the machine only.
21. Repeat Steps 17 and 18 for the other pivot pin (9 or 10).
22. Raise the loader frame (2) out of the front frame. Carefully move the machine out of the loader frame (2).

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INDEX OF FUNCTIONS

FUNCTION	SHT
AIR SEAT	12
BACKUP ALARM	6
CAN COMMUNICATION	12
COLD START	4
ENGINE CONTROL	5
HOOD LIFT	11
HVAC	12,14
IGNITION SWITCH	4
INSTRUMENT CLUSTER	9
LIGHTING 1 (combos...)	6
LIGHTING 2 (work lights)	7
MACHINE CONTROLS	10
RADIO/POWER CONVERTER	12
POWER DISTRIBUTION	4
TRANSMISSION CONTROL	8
SCR EXHAUST TREATMENT	5
SECONDARY STEERING	11
WIPER/WASHER SYSTEM	11
JOYSTICK STEERING	13

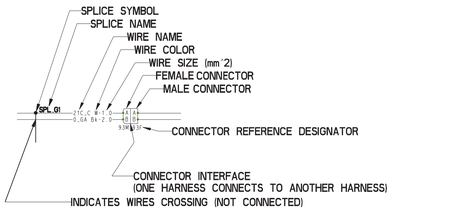
COLOR ABBREVIATIONS

ABBREVIATION	COLOR
Bk	BLACK
DU	DARK BLUE
G	GREEN
K	PINK
LG	LIGHT GREEN
LU	LIGHT BLUE
N	BROWN
Or	ORANGE
P	PURPLE OR VIOLET
R	RED
S	GREY
T	TAN
U	BLUE
W	WHITE
Y	YELLOW

LARGE CONNECTOR LIST

NAME	DESCRIPTION	SHEET
AIC_1	ADV INSTR CLUSTER 1	4, 7, 9, 10
AIC_2	ADV INSTR CLUSTER 2	4, 6, 7, 9, 10
CAB_E	CAB-ENGINE	4, 5, 9, 10, 11, 12
CAB_F	CAB-FRNT_CHAS	6, 10
CAN_MOD_2	JSS CAN MOD	13
ECA	ELECT CNTR A	4, 5, 6, 7, 8, 9, 10, 11
ECB	ELECT CNTR B	4, 6, 9, 10, 12
ECC	ELECT CNTR C	4, 6, 7, 8, 9, 10, 11
ECD	ELEC CNTR D	4, 5, 6, 10, 11, 12
ENG	ENGINE-CAB1	4, 5, 9, 10, 11, 12
FRONT	FRNT_CHAS-CAB	6, 10
SW_PD	SWITCH PAD	6, 9, 10, 12

DIAGRAM SYMBOL DESCRIPTIONS



REF DES NAMING CONVENTION
S... ROCKER SWITCHES
L... LIGHTS
P... PRESSURE SENSORS/SWITCHES
Y... SOLENOIDS
R... RESISTANCE MEASURE
ABOVE LETTER FOLLOWED BY THE FIRST LETTER
OF THE FIRST TWO WORDS OF THE SYMBOL LABEL
SPL..... SPLICE

ECA		
PIN	NAME	SHT
A1	A1	8
A2	A2	13
A3	A3	9
A4	A4	11
A5	A5	10
A6	A6	9
A7	A7	10
A8	A8	6
A9	A9	4
A10	A10	5
C1	C1	12
C2	C2	11
C3	C3	12
C4	C4	6
C5	C5	12
C7	C7	11
C8	C8	12
C9	C9	6
L1	L1_1	8
L2	L1_2	13
L3	L1_3	9
L4	L1_4	11
L5	L1_5	10
L6	L1_6	9
L7	L1_7	10
L8	L1_8	9
L9	L1_9	12
L10	L1_10	8
A1	B1	12
A2	B2	12
A3	B3	6
A4	B4	6
A5	B5	6
A6	B6	6
A7	B7	6
A8	B8	6
A9	B9	12
A10	B10	12
A11	B11	12
A12	B12	12
A13	B13	6
A14	B14	6
A15	B15	6
A16	B16	6
A17	B17	6
A18	B18	6
A19	B19	12
A20	B20	12

ECB		
PIN	NAME	SHT
B1	B1	4
B2	B2	4
B5	B5	4
B7	B7	10
B8	B8	10
B2	B2_K1	4
B4	B4_K1	4
B6	B6_K1	4
B8	B8_K1	10
B10	B10_K1	4
D1	D1_K1	12
D2	D2_K1	4
D3	D3_K1	4
D5	D5_K1	4
D7	D7_K1	10
D8	D8_K1	10
C2	B7A_K1	4
C4	B7A_K2	4
C6	B7A_K3	4
C8	B7A_K4	10
C10	B7A_K5	9
D2	B7_K1	4
D4	B7_K2	4
D6	B7_K3	4
D8	B7_K4	10
D10	B7_K5	9
A1	A1	7
A2	A2	7
A3	A3	6
A4	A4	6
A5	A5	4
A6	A6	10
A7	A7	11
A8	A8	9
A9	A9	12
A10	A10	12
B1	B1	12
B2	B2	12
B3	B3	6
B4	B4	6
B5	B5	6
B6	B6	6
B7	B7	6
B8	B8	6
B9	B9	12
B10	B10	12

ECC		
PIN	NAME	SHT
B1	B1_K1	11
B2	B2_K1	11
B3	B3_K3	10
B5	B5_K3	10
B7	B7_K3	10
B9	B9_K3	10
B2	B2_K1	11
B4	B4_K2	10
B6	B6_K3	10
B8	B8_K4	10
B10	B10_K5	12
D1	D1_K1	11
D3	D3_K2	11
D5	D5_K3	10
D7	D7_K4	10
D9	D9_K5	12
C1	B7A_K1	11
C3	B7A_K2	11
C5	B7A_K3	10
C7	B7A_K4	10
C9	B7A_K5	9
D2	B7_K1	11
D4	B7_K2	11
D6	B7_K3	10
D8	B7_K4	10
D10	B7_K5	12
A2	A2	6
A4	A3	6
A6	A4	6
A8	A5	6
A10	A6	6
B1	A7	11
B3	A8	9
B5	A9	12
B7	A10	8
B9	L1_1	7
C2	L1_2	7
C4	L1_3	6
C6	L1_4	6
C8	L1_5	4
C10	L1_6	10
D2	L1_7	11
D4	L1_8	9
D6	L1_9	12
D8	L1_10	8

ECD		
PIN	NAME	SHT
B1	B1_K1	11
B3	B3_K2	11
B5	B5_K3	10
B7	B7_K4	10
B9	B9_K5	12
B2	B2_K1	11
B4	B4_K2	10
B6	B6_K3	10
B8	B8_K4	10
B10	B10_K5	12
D1	D1_K1	11
D3	D3_K2	11
D5	D5_K3	10
D7	D7_K4	10
D9	D9_K5	12
C2	B7A_K1	11
C4	B7A_K2	11
C6	B7A_K3	10
C8	B7A_K4	10
C10	B7A_K5	9
D2	B7_K1	11
D4	B7_K2	11
D6	B7_K3	10
D8	B7_K4	10
D10	B7_K5	12
A1	A1	7
A2	A2	7
A3	A3	6
A4	A4	6
A5	A5	4
A6	A6	10
A7	A7	11
A8	A8	9
A9	A9	12
A10	A10	8
C1	L1_1	7
C2	L1_2	7
C3	L1_3	6
C4	L1_4	6
C5	L1_5	4
C6	L1_6	10
C7	L1_7	11
C8	L1_8	9
C9	L1_9	12
C10	L1_10	8

(62) AIC 1

PIN	SHT
1	9
2	9
3	12
4	12
6	9
7	9
9	9
11	9
12	9
13	9
14	9
20	10
21	13
22	10
23	10
25	9
26	10

(71) AIC 2

PIN	SHT
2	7
4	9
5	9
6	9
7	10
8	10
10	6
11	11
12	12
14	9
15	9
16	10
17	4
18	10
20	9
21	9
22	9

ENG ENGINE-CAB1

PIN	SHT
1	9
2	9
3	4
4	4
5	9
6	9
7	4
8	4
9	4
10	5
11	4
12	5
13	5
14	5
15	4
16	9
17	5
18	5
19	9
20	9
21	4
22	10
23	10
24	11
25	11
26	4
27	4
28	9
29	12
30	12
31	4

ENG2 ENG BULKHD2

PIN	SHT
A	5
B	5
C	5
D	5
E	5
F	5
G	5
H	5
J	5
K	5
L	6
M	6
N	6
P	6
R	6
S	6
T	11
U	11
V	11
W	11
X	11

FRONT

PIN	SHT
1	6
2	6
3	10
4	9
5	7
6	6
7	12
8	9
9	10
10	9

(70) SW PD SWITCH PAD

PIN	SHT
1	6
3	10
4	9
5	9
7	12
8	12
9	9
10	9

TRANS TRANSMISSON CAB

PIN	SHT
1	9
2	8
3	11
4	11
5	8
6	11
7	8
8	8
9	8
10	8
11	8
12	8
13	8
14	8
15	8
16	8
17	8
18	8
19	8
20	8
21	8
22	8
23	9
24	8
25	8
26	11
27	8
28	8
29	8
30	8
31	8

CONNECTOR LIST

NAME	DESCRIPTION	SHEET
1:5	GRID_HTR_PWR	4
193	STARTER_RELAY	4
194	STARTER_SIGNAL	4
195	STR_REL_PWR	4
108F	DIAGNOSTIC_CONNECTOR	8
140M	DIODE_MODULE	11
197F	MAIN_CAB_FNR	8
197M	FNR-MAIN_CAB	8
202M	ROLLBACK_JUMPER	10
209F	BACK-UP_ALRM_DISA_JMP	6
209M	BACK-UP_ALRM_DISA_JMP	6
20M	TRANS_KICK-DOWN	8
215F	ALTERNATOR_RESISTOR	4
216F	ALTERNATOR_RESISTOR	4
21M	TRANS_KICK-DOWN	13
242F	CHAS_GRD-SEC_STRG_MTR	11
244F	STARTER-SEC_STRG_MTR	11
245F	SEC_STR_FLYBACK	11
64F	FLASHER_CONNECTOR	6
64M	FLASHER_CONNECTOR	6
AB+	ALTERNATOR_B+	4
AB_S	ALTERNATOR B+	4
ACT	AC_COMP_CLUTCH	12
AD	ALTERNATOR D+	4
ALT_S	ALTERNATOR D+	4
ARM_FNR	FNR-MAIN_CAB	13
ARM_POS	ARM POSITION	13
B1	STARTER PWR STUD	4
B2	STARTER-POWER	4
B3	STARTER-BATTERY	4
B4	STARTER_POWER	4
B5	STARTER PWR STUD	4
B6	STARTER POWER	4
B7	STARTER-BATTERY	4
B8	STARTER_POWER	4
BPP	PEDAL POSITION	8
BT1	BATTERY_STARTER	4
BT2	DISCONNECT-BATTERY	4
BT3	STARTER-BATTERY	4
BT4	DISCONN-BLCK_GRND	4
BTM_C	CAB BOTTOM BULKHD	6
BTM_E	CAB BTTOM	5
BU1	BACKUP_ALARM_GRND	6
BU2	BACKUP_ALARM	6
BUZ	AIC_BUZZER	9
CABE2	CAB TO ENG2 BULKHD	5
CAB_ARM	CAB TO ARMREST	13
CAB_ARM_FRM	CAB TO ARM TO FRM	13
CAB_B	CAB BTM BULKHEAD	6
CAB_FNR	MAIN_CAB_FNR	13
CAB_FRM	CAB TO JSS FRAME	13
CAB_PW	CAB POWER	4
CAB_RF	CAB TO ROOF CONNECTION	7
CAB_T	CAB-TRANSMISSION	8
CBPW	CAB POWER	4
CL	C1GAR_LIGHTER	12
CNV	24V TO 12V PWR CONVERTER	12
DC1	DISCONNECT-BATTERY	4
DC2	DISCON-BLCK_GRND	4
DC3	FUEL_SOL_DISCONNECT	4
DC4	FUEL_SOL_DISCONNECT	4
DC2_A	DISCONECT-BATTERY	4
DEFDM	DOSER METERING VLV	5
DIA	DIAGNOSTIC	12
DIA_2	DIAGNOSTIC	5

CONNECTOR LIST

NAME	DESCRIPTION	SHEET
DISC	DISCONNECT-ENGINE	4
DM	DIODE OR	11
DNOX2	NOX CONTROLLER	5
DS	DOOR SWITCH	7
DTLTS	DEF_TANK-LEVEL_TEMP_SENSOR	5
DTS	DOWNSTREAM TEMP SENS	5
DU_OR	DIODE OR	7
ECA_L1	B+ POWER	4
EDC7	ENGINE CONTROLLER	5
EM	RTD_HEIGHT_CONT_RTT	10
ENG2	ENG BULKHD_2	5, 6, 11
ENG_B	CAB BTTOM	5, 9, 12
ENG_D	DISC_HARNESS	4
ENG_H	ENGINE TO HOOD	6
ENG_H_T_1	ENGINE TO HOOD	6
ENG_H_T_2	ENGINE TO HOOD	6
ESS	ENG_SPEED_SENS	8
EVGT_3	EVGT_FUSE	5
EVGT_4	EVGT	5
E_HD	TRANS-HOOD	6
FFH	FUEL_FLTR_HTR	4
FLSHR	FLASHER_MODULE	6
FM	FILT_MAINT_SW	8
FNR_RLY	RELAY K2	13
FSS	FAN_SPEED_SENS	9
FWD_DIODE	DIODE ASSY	13
FWM	FRONT-WIPER_MOTOR	11
FWNG	WIPER GROUND	11
FWW	FRONT_WASHER	11
GH	GRID_HEATER	4
GHC	GRID_HEATER_REL	4
GHF1	GRID HTR FUSE	4
GHF3	GRID_HTR_FUSE	4
GHF4	GRID_HTR	4
GH_1	GRID_HTR	4
GND_CAB1	GROUND_A	7
GND_CAB2	GROUND_A	11
GND_CAB3	GROUND_C	12
GND_CAB4	GROUND_C	12
GND_CAB5	GROUND_C	12
GND_CAB6	STRT, FFH, WAT_SEP_HTR	4
GND_CAB3D	GROUND_A	8
GND_CAB_SPL	CAB GRND SPLICE	12
GND_CAB_SPL2	SPL BACK LGHT GD	4, 6
GND_ENG1	STRT, FFH, WAT_SEP_HTR	4
GND_ENG2	WIF, EDC	5
GND_ENG3	SPLC_PK, WSHR MTR	11
GND_ENG4	REAR LIGHTING	6
GND_ENG6	DEDICATED	9
GND_ENG7	TRANNY, COOL TEMP	9
GND_FC	GROUND_A	10
GND_GH1	STRT, FFH, WAT_SEP_HTR	4
GND_JSS	GROUND_A	13
GND_PDST	GROUND_A	9
GND_PDST1	GROUND_A	9

CONNECTOR LIST

NAME	DESCRIPTION	SHEET
GND_PDST2	GROUND_A	9
GND_S1	GROUND_A	10
GND_S2	GROUND_A	10
GND_SSCHAS	SSM_GROUND_CABLE	11
GND_SSMOD	SEC STR CHASIS GND	11
GND_TRANS	GROUND_TRANS	9
GND_WIF	GRND WIF RING TERM	4
HD	HOOD_SWITCH	11
HDM	HOOD_LIFT_MOTOR	11
HD_E	HOOD-TRANS	6
HD_N	HOOD TO ENG	6
HD_N_T_1	HOOD TO ENGINE	6
HD_N_T_2	HOOD TO ENGINE	6
HN1	HORN_ENGINE	10
HN2	HORN_GRND	10
HOT	HYD_OIL_TEMP_SEND	9
HOTT	HMDTY AND AMB TEMP	5
HVAC1	HVAC1	12
HVAC2	HVAC2	12
ISS	INT_SPEED_SENS	8
JSS_197F	MAIN_CAB_FNR	13
JSS_197M	FNR-MAIN_CAB	13
JSS_ARM	JSS ARMREST TO CAB	13
JSS_CAB	JSS CAB	12, 13
JSS_CNT	JSS CONTROLLER	13
JSS_FRM	JSS FRAME_TO CAB	13
JSS_LS	JSS LOAD SENSE	13
JSS_PIL_DUMP	JSS PILOT DUMP	13
JSS_PIL_PR	JSS PILOT PRESSURE	13
JSS_RLY	RELAY K2	13
JSS_VALVE	JSS HYD VALVE	13
K5		
KD_DIODE	DIODE ASSY	13
KWCO	WIPER CUTOUT	11
L1_ECC	ECC BATT PWR	7
LBEGRD	LIGHT BEACON GRND	7
LBEPWR	LIGHT BEACON PWR	7
LDM1	DOME_LIGHT_B+	7
LDM2	DOME_LIGHT_AUTO	7
LDM3	DOME_LIGHT_GND	7
LLF	LIGHTS_LH	6
LLFW	LH_FRONT_WK_LT	7
LLR	LH_REAR_COMB_LT	6
LLRW	LH_REAR_WK_LT	7
LLR_L	LH_REAR_COMB_LT	6
LPL	LIC_PLATE_LIGHT	6
LRF	LIGHTS_RH	6
LRFO	FRONT_WK_LT_OPT	7
LRFB	FRONT_WK_LT_OPT	7
LRFS	FRONT_WK_LT_OPT	7
LRFW	RH_FRONT_WK_LT	7
LRR	RH_REAR_COMB_LT	6
LRRW	RH_REAR_WK_LT	7
LRR_E	RH_REAR_COMB_LT	6
LSPK	LEFT_SPEAKER	12
MON	CAMERA/MONITOR	7
NOXS	NOX SENSOR	5
NTRL_DIODE	DIODE ASSY	13
OSS	OUT_SPEED_SENS	8
PAF	AIR_FILT_RES_SW	9
PBD	DEC_PRESS_SW	8
PBL	BRAKE_LI_PRES_SW	6
PBW	BRK_WARN_PR_SW	9
PHF	HYD_OIL_FILT_RES_SW	9
PHF9	HYD_FLTR_RES_SW	9
PO1	POWER_OUTLET	12
PO2	POWER_OUTLET	12
PRB1	RED_BRAKE_SW	9
PRB2	RED_BRAKE_SW	9
PRBF	ROLBACK_PRES_SW	10
PRH	AC_HIGH_PRESS_SW	12

CONNECTOR LIST

NAME	DESCRIPTION	SHEET
PRL	AC_LOW_PRESS_SW	12
PRMB_L1	B+ POWER	4
PRMB_L2	B+ POWER	4
PRM_A	PWR RLY MOD A	
PRM_A1	PRM OUTPUT	4
PRM_A2	PRM SIGNAL	4
PRM_B1	PRM SIGNAL	4
PRM_C1	PRM SIGNAL	4
PRM_D	PWR RLY MOD D	
PRM_D1	PRM OUTPUT	4
PRM_D2	PRM SIGNAL	4
PSS	SEC STR PRES SWITCH	11
PVRES	JSS JOYSTICK	13
PXF	RTD	10
PXH	HGT_CNTRL-RTT	10
PXM	RTD	10
PXT	RTD	10
P_A1	B+ POWER	4
P_A2	B+ POWER	4
P_C1	B+ PWR FRM PRMD	4
P_C2	B+ PWR FRM PRMD	4
P_C3	B+ PWR FRM PRMD	4
P_C4	B+ PWR FRM PRMD	4
P_C6	B+ PWR FRM PRMD	4
R1	RESISTOR	13
RAD	RADIO_POWER	12
RAD_J1	RADIO_POWER	12
RAD_J2	SPEAKER	12
RAD_J3	RADIO_JUMPER	12
RECT	ENG_COOL_TEMP	9
RFL	FUEL_SENDER	9
RFLG	FUEL_SEND_GRND	9
RFL_23	FUEL_LEVEL_SEND	13
ROOF	ROOF TO CAB CONNECTION	7, 11, 12
RSPK	RIGHT_SPEAKER	12
RTHP	THROTTLE_PEDAL	5
RVS_DIODE	DIODE ASSY	13
RWM	REAR_WIPER_MTR	11
RWMG	REAR_WIPER_MTR_GD	11
RWW	REAR_WASHER	11
SAJ	FNR_SWITCH	13
SBE	BEACON_SW	7
SBU	BACK-UP_ALRM_DIS_SW	6
SC	SEAT_COMP_MOTOR	12
SDA	DIFF_LOCK_SWITCH	8
SDC	DECLUTCH_SWITCH	8
SDM	DIFF_LOCK SWITCH	8
SDR	DRIVING LIGHTS SW	6
SFC	FAN_CONTROL_SW	10
SFL	RETURN_TO_TRAVEL_SW	10
SFNR	FNR_SWITCH	8
SFWW	FRONT WIPER/WASHER	11
SHC	HEIGHT CONTROL SW	10
SHZ	HAZARD_SWITCH	6
SJS	JOYSTICK_CONTROL_SW	13
SPB	PARKING_BRAKE_SWITCH	9
SPC	PILOT_CONTROL_SWITCH	10
SPE	PIN_ENGAGE_SW	10
SPK	SPEAKER	12
SPL_2	ULTRASONIC	11
SPL_3	ULTRASONIC	11
SPL_12V	ULTRASONIC	12
SPL_19S	ULTRASONIC	11
SPL_35A	ULTRASONIC	6
SPL_42C	ULTRASONIC	7
SPL_A1	ULTRASONIC	10
SPL_A2	ULTRASONIC	10
SPL_A3	ULTRASONIC	10
SPL_A4	ULTRASONIC	9
SPL_A1A	ULTRASONIC	6
SPL_AC	ULTRASONIC	12

CONNECTOR LIST

NAME	DESCRIPTION	SHEET
SPL_ACC	ULTRASONIC	4
SPL_ACP	ULTRASONIC	12
SPL_ACS	ULTRASONIC	12
SPL_AJ	ULTRASONIC	13
SPL_ALT	ULTRASONIC	4
SPL_AP	ULTRASONIC	9
SPL_BB	ULTRASONIC	6
SPL_BCK_LGT	SPLICE BACK LGHT PWR	7
SPL_BCK_LGT2	SPL_BACK_LGT_PWR	10
SPL_BCK_LT_GD	SPL_BACK LGHT GD	7
SPL_BCK_LT_GD2	SPL_BACK LGT GRND	10
SPL_BLWR	ULTRASONIC	12
SPL_BUZ	ULTRASONIC	9
SPL_C3	ULTRASONIC	11
SPL_CAN	ULTRASONIC	12
SPL_CAN_DH	ULTRASONIC	5
SPL_CAN_DIAG	ULTRASONIC	12
SPL_CAN_DIAG_L	ULTRASONIC	12
SPL_CAN_DL	ULTRASONIC	5
SPL_CAN_GH	ULTRASONIC	5
SPL_CAN_GL	ULTRASONIC	5
SPL_CAN_HT	ULTRASONIC	5
SPL_CAN_HV	ULTRASONIC	5
SPL_CAN_JS_H1	ULTRASONIC	12
SPL_CAN_JS_H2	ULTRASONIC	12
SPL_CAN_JS_L1	ULTRASONIC	12
SPL_CAN_JS_L2	ULTRASONIC	12
SPL_CAN_L	ULTRASONIC	12
SPL_CAN_LT	ULTRASONIC	5
SPL_CAN_LV	ULTRASONIC	5
SPL_CAN_TEL	ULTRASONIC	12
SPL_CAN_TEL2	ULTRASONIC	12
SPL_CAN_TRANS	ULTRASONIC	12
SPL_CAN_TRANS_L	ULTRASONIC	12
SPL_CNV	ULTRASONIC	12
SPL_CR	ULTRASONIC	4
SPL_CRK	ULTRASONIC	4
SPL_D1	ULTRASONIC	10
SPL_D11	ULTRASONIC	8
SPL_D12	ULTRASONIC	8
SPL_D15	ULTRASONIC	8
SPL_D16	ULTRASONIC	8
SPL_D17	ULTRASONIC	8
SPL_D19	ULTRASONIC	8
SPL_D24	ULTRASONIC	10
SPL_D25	ULTRASONIC	10
SPL_D26	ULTRASONIC	10
SPL_D8_C1	ULTRASONIC	6
SPL_DC	ULTRASONIC	8
SPL_DCUG	ULTRASONIC	5
SPL_DLY3	ULTRASONIC	9
SPL_DR	ULTRASOIC	6
SPL_EDC1	ULTRASONIC	5
SPL_EDC2	ULTRASONIC	5
SPL_EDC3	ULTRASONIC	5
SPL_EDC4	ULTRASONIC	5
SPL_ENG	ULTRASONIC	11
SPL_FAN	ULTRASONIC	10
SPL_FLSHR_PWR	ULTRASONIC	6
SPL_FNR	ULTRASONIC	8
SPL_FW	ULTRASONIC	11
SPL_H1	ULTRASONIC	8
SPL_H2	ULTRASONIC	8
SPL_HB	ULTRASONIC	6
SPL_HC	ULTRASONIC	11
SPL_HOOD	ULTRASONIC	11
SPL_HOOD_GRND	HOOD GRND 6PCK	11
SPL_HRN	ULTRASONIC	10
SPL_HTR	ULTRASONIC	4
SPL_J1	ULTRASONIC	6
SPL_J2_N	ULTRASONIC	6
SPL_JSS_1	ULTRASONIC	13

CONNECTOR LIST

NAME	DESCRIPTION	SHEET
SPL_JSS_2	ULTRASONIC	13
SPL_JSS_3	ULTRASONIC	13
SPL_JSS_4	ULTRASONIC	13
SPL_JSS_5	ULTRASONIC	13
SPL_JSS_6	ULTRASONIC	13
SPL_JSS_7	ULTRASONIC	13
SPL_JSS_9	ULTRASONIC	13
SPL_JSS_10	ULTRASONIC	13
SPL_JSS_11	ULTRASONIC	13
SPL_JSS_13	ULTRASONIC	13
SPL_JSS_14	ULTRASONIC	13
SPL_JSS_15	ULTRASONIC	13
SPL_JSS_16	ULTRASONIC	13
SPL_JSS_17	ULTRASONIC	13
SPL_JSS_18	ULTRASONIC	13
SPL_JSS_20	ULTRASONIC	13
SPL_JSS_21	ULTRASONIC	13
SPL_LB	ULTRASONIC	6
SPL_LT	ULTRASONIC	7
SPL_NEU	ULTRASONIC	4
SPL_PBS	ULTRASONIC	9
SPL_PED_BL	SPL_BACK LGT PWR & PCK	10
SPL_PED_BL_GD	SPL_BACK LGT GD 6PCK	10
SPL_PIN	SPL_BACK LGT PWR	10
SPL_PINE	ULTRASONIC	10
SPL_PK1	SPLICE 3-4WAY	7
SPL_PK3	SPLICE 3-4WAY	6
SPL_POS	ULTRASONIC	6
SPL_POS_L	ULTRASONIC	6
SPL_POS_NA	ULTRASONIC	6
SPL_POS_R	ULTRASONIC	6
SPL_PR	ULTRASONIC	6
SPL_PTM	ULTRASONIC	9
SPL_RAD	ULTRASONIC	12
SPL_RD	ULTRASONIC	9
SPL_ROOF	SPLICE ROOF GROUND	7
SPL_RTT	ULTRASONIC	10
SPL_RWW	ULTRASONIC	11
SPL_SD1	ULTRASONIC	4
SPL_SD2	ULTRASONIC	4
SPL_SD3	ULTRASONIC	4
SPL_SEC	ULTRASONIC	11
SPL_SS	ULTRASONIC	11
SPL_SW_PD	ULTRASONIC	9
SPL_TRNS_PWR	TRANS_PWR	8
SPL_WHS	ULTRASONIC	11
SPL_WK	ULTRASONIC	7
SPL_WL	ULTRASONIC	7
SPL_WL1	ULTRASONIC	7
SPL_WLS	ULTRASONIC	11
SPL_WR	ULTRASONIC	7
SPL_WRK1	ULTRASONIC	7
SPL_WRK2	ULTRASONIC	7
SPL_WRKF	ULTRASONIC	7
SPL_WRKR	ULTRASONIC	7
SRC	RIDE_CONTROL_SW	10
SRC_1	RELAY	4
SRHSTLK	RH STALK SWITCH	6
SRP	WORK LIGHTS SW	4
SRTD	DETENT_

TORQUE SPECIFICATIONS - DECIMAL HARDWARE

Use the torques in this chart when special torques are not given. These torques apply to fasteners with both UNC and UNF threads as received from suppliers dry, or when lubricated with engine oil. Not applicable if special graphities, Molydisulfide greases, or other extreme pressure lubricants are used.

Grade 5 Bolts, Nuts, and Studs



Size	Pound-Inches	Newton metres
1/4 inch	108 to 132	12 to 15
5/16 inch	204 to 252	23 to 28
3/8 inch	420 to 504	48 to 57
Size	Pound-Feet	Newton metres
7/16 inch	54 to 64	73 to 87
1/2 inch	80 to 96	109 to 130
9/16 inch	110 to 132	149 to 179
5/8 inch	150 to 180	203 to 244
3/4 inch	270 to 324	366 to 439
7/8 inch	400 to 480	542 to 651
1.0 inch	580 to 696	787 to 944
1-1/8 inch	800 to 880	1085 to 1193
1-1/4 inch	1120 to 1240	1519 to 1681
1-3/8 inch	1460 to 1680	1980 to 2278
1-1/2 inch	1940 to 2200	2631 to 2983

Grade 8 Bolts, Nuts, and Studs



Size	Pound-Inches	Newton metres
1/4 inch	144 to 180	16 to 20
5/16 inch	288 to 348	33 to 39
3/8 inch	540 to 648	61 to 73
Size	Pound-Feet	Newton metres
7/16 inch	70 to 84	95 to 114
1/2 inch	110 to 132	149 to 179
9/16 inch	160 to 192	217 to 260
5/8 inch	220 to 264	298 to 358
3/4 inch	380 to 456	515 to 618
7/8 inch	600 to 720	814 to 976
1.0 inch	900 to 1080	1220 to 1465
1-1/8 inch	1280 to 1440	1736 to 1953
1-1/4 inch	1820 to 2000	2468 to 2712
1-3/8 inch	2380 to 2720	3227 to 3688
1-1/2 inch	3160 to 3560	4285 to 4827

NOTE: *Use thick nuts with Grade 8 bolts.*

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129 – A/C High/Low Pressure Switch

Located on the rear frame in front of the rear axle.

Check Points	Correct Reading	Possible Cause of Bad Reading
NOTE: *Put master disconnect switch and ignition switch in ON position. Put the fan speed switch (149) to HIGH and the thermostat switch to COLD.*		
Terminal B for wire 61A to ground	24 volts	Check the thermostat switch, also check circuit 61A.
NOTE: *Disconnect the wiring harness connector PR from the A/C trinary pressure switch. (Low and high switches)*		
Between terminals of trinary pressure switch	Continuity	Bad A/C low pressure switch, also check refrigerant charge level. (Pressure must be above 2.75 bar (40 psi) or below 26 bar (377 psi) for switch to be closed.)

130 – Compressor Clutch

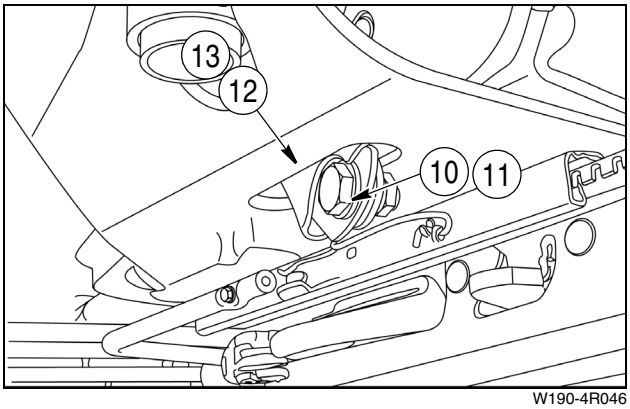
Located on the left side of the engine.

Check Points	Correct Reading	Possible Cause of Bad Reading
NOTE: *Put master disconnect switch and ignition switch in ON position. Put fan speed switch (149) to HIGH and thermostat switch to COLD.*		
Terminals for wire 61C-A to ground	24 volts	Check the compressor clutch relay (128), also check circuit 61C.

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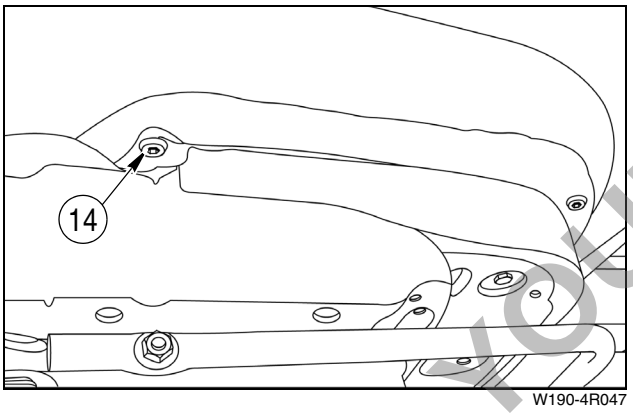
STEP 16



W190-4R046

Remove the support fastening the seat belt by removing nut (10), washer (11), capscrew (12) and washer (13).

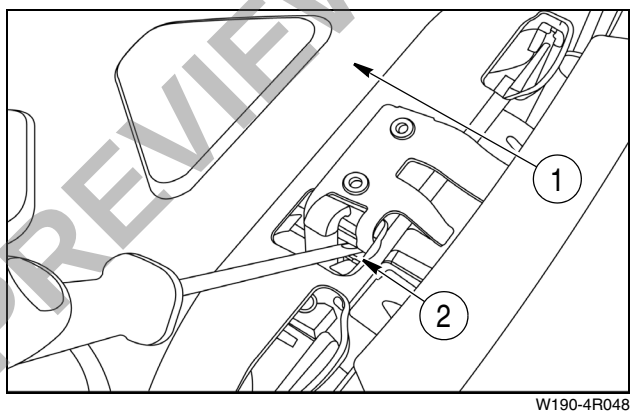
STEP 17



W190-4R047

Remove the four screws (14) and washers from the seat cushion.

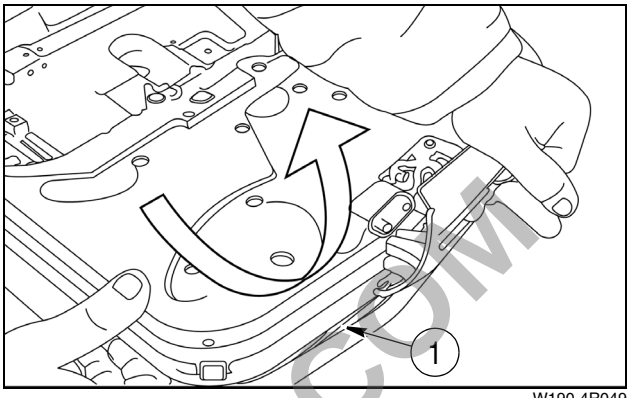
STEP 18



W190-4R048

Pressing down on the seat cushion support plate (1), slightly tilt the aluminium tongue (2) to release the support (1) and allow raising/rotating the front. Use caution when releasing aluminium tongue (2) to avoid breaking it.

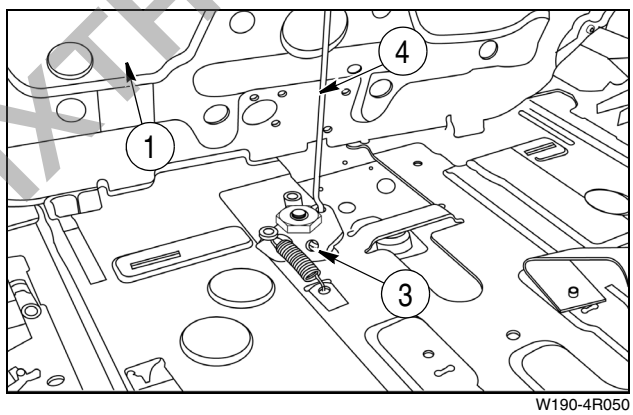
STEP 19



W190-4R049

Raise while slowly rotating the seat cushion support plate (1).

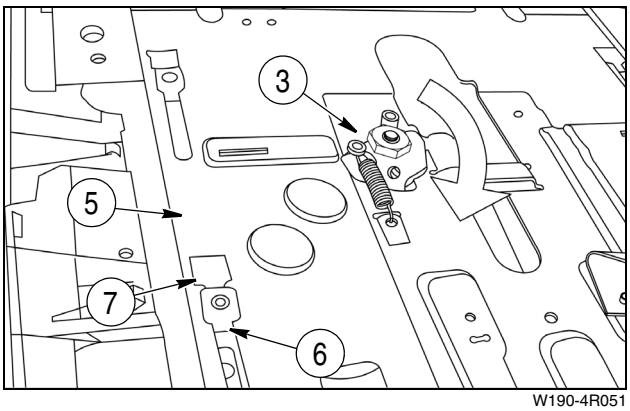
STEP 20



W190-4R050

Unhook the rod (4) from the support (3) and remove the seat cushion plate (1).

STEP 21



W190-4R051

Turn the knob of the support (3) clockwise and move plate (5) forward until the four sliding blocks (6) are in slots (7). Remove the plate (5).

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TABLE OF CONTENTS

BRAKE VALVE 4
Removal 4
Installation 4
SERVICE BRAKE AND PARKING BRAKE ACCUMULATORS 6
Removal 6
Installation 6
BRAKE PUMP 8
Removal 8
Installation 8

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