A8000
A8800

Sugar cane harvester

serial PIN PRCY8800HGPA03064 and after

serial PIN PRCY8800HGPA03065 and after

SERVICE MANUAL

Part number 48063380
English
December 2017

CASE IH
AGRICULTURE

Basic instructions - Shop and assembly

Shimming

For each adjustment operation, select adjusting shims and measure the adjusting shims individually using a micrometer, then add up the recorded values. Do not rely on measuring the entire shimming set, which may be incorrect, or the rated value shown on each shim.

Rotating shaft seals

For correct rotating shaft seal installation, proceed as follows:

1. Before assembly, allow the seal to soak in the oil it will be sealing for at least thirty minutes.
2. Thoroughly clean the shaft and check that the working surface on the shaft is not damaged.
3. Position the sealing lip facing the fluid.

   NOTE: *With hydrodynamic lips, take into consideration the shaft rotation direction and position the grooves so that they will move the fluid towards the inner side of the seal.*
4. Coat the sealing lip with a thin layer of lubricant (use oil rather than grease). Fill the gap between the sealing lip and the dust lip on double lip seals with grease.
5. Insert the seal in its seat and press down using a flat punch or seal installation tool. Do not tap the seal with a hammer or mallet.
6. While you insert the seal, check that the seal is perpendicular to the seat. When the seal settles, make sure that the seal makes contact with the thrust element, if required.
7. To prevent damage to the seal lip on the shaft, position a protective guard during installation operations.

O-ring seals

Lubricate the O-ring seals before you insert them in the seats. This will prevent the O-ring seals from overturning and twisting, which would jeopardize sealing efficiency.

Sealing compounds

Apply a sealing compound on the mating surfaces when specified by the procedure. Before you apply the sealing compound, prepare the surfaces as directed by the product container.

Spare parts

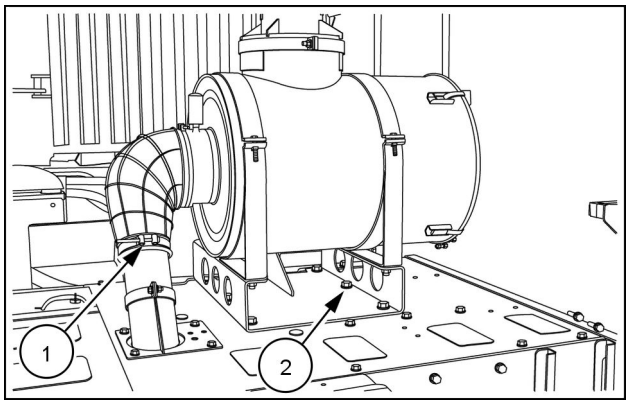
Only use CNH Original Parts or CASE IH Original Parts.

Only genuine spare parts guarantee the same quality, duration, and safety as original parts, as they are the same parts that are assembled during standard production. Only CNH Original Parts or CASE IH Original Parts can offer this guarantee.

When ordering spare parts, always provide the following information:

- Machine model (commercial name) and Product Identification Number (PIN)
- Part number of the ordered part, which can be found in the parts catalog

8. Loosen the air intake hoselet clamp **(1)**. Remove the six cradle mounting bolts **(2)**.



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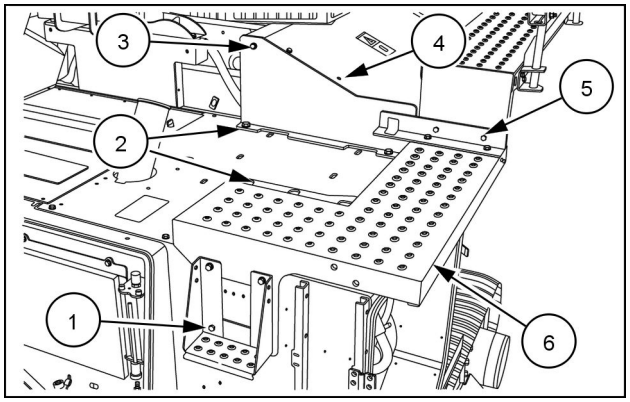
9. Remove the left-hand side access platform. Follow steps **10**, **11**, and **12**.
10. Remove the bolts **(1)** from the ladder.
11. Remove the five bolts **(2)** from the floor.
12. Remove the bolts **(3)**, **(4)**, and **(5)** from the cradle. Remove the floor **(6)**.



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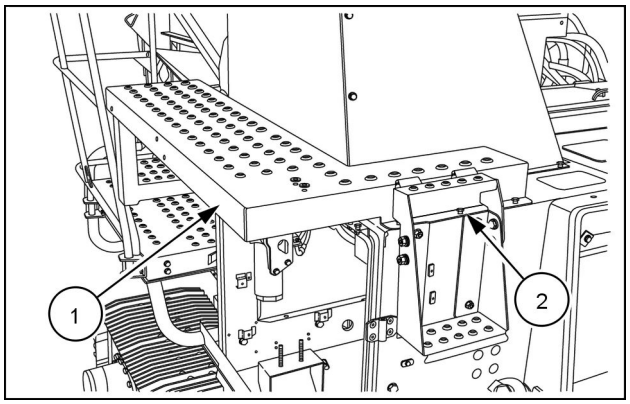
13. Remove the platform **(1)** over the engine case on the right-hand side.
14. Remove the three bolts **(2)** from the platform.



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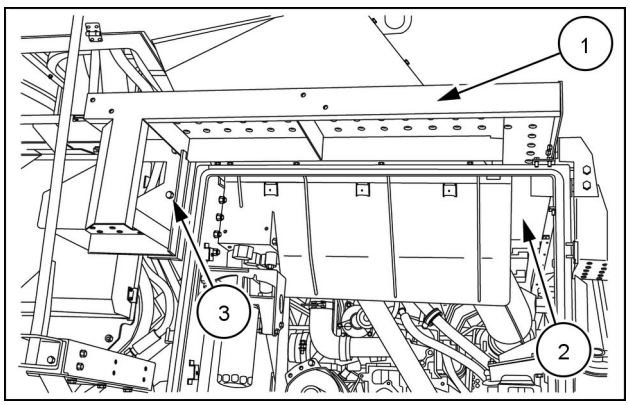
15. Remove the three bolts **(3)** from the ladder and the two bolts **(2)** from the engine case. Remove the platform **(1)**.



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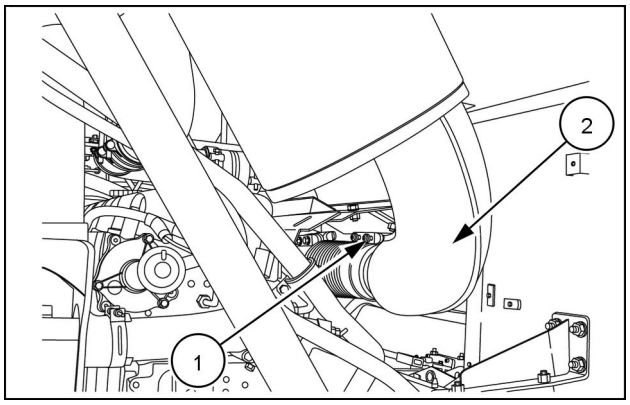
Fuel-water separator filter - Special tools

NOTICE: *The tools that appear below with the symbol "X" are essential for the operations described in this section. However, for greater safety and to obtain the best results as well as saving time and effort, it is recommended that these essential tools be used together with the specific tools listed below and certain tools that should be made according to the construction drawings given in this Manual.*

List of specific tools needed to perform the different operations described in this Section.

X	**84238065**	Wrench for replacement of the fuel decanter filter element

4. Loosen the clamp **(1)**. Remove the exhaust muffler **(2)**.



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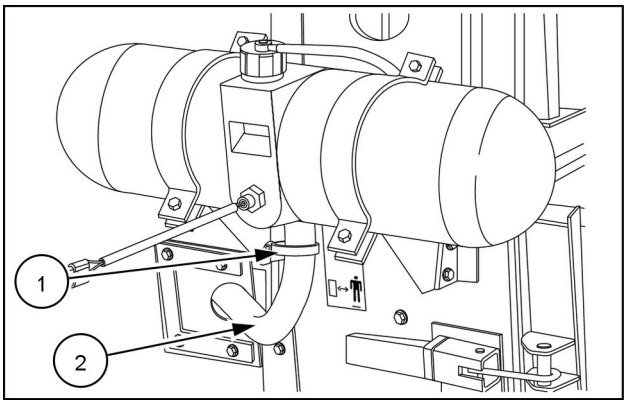
9. Loosen the clamp **(1)**. Disconnect the hose **(2)**.



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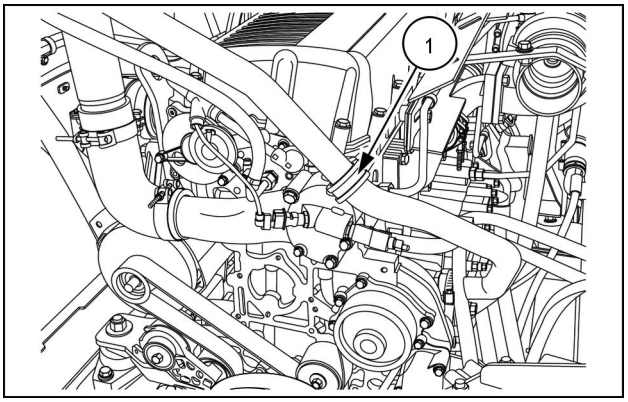
10. Loosen the two clips **(1)**.



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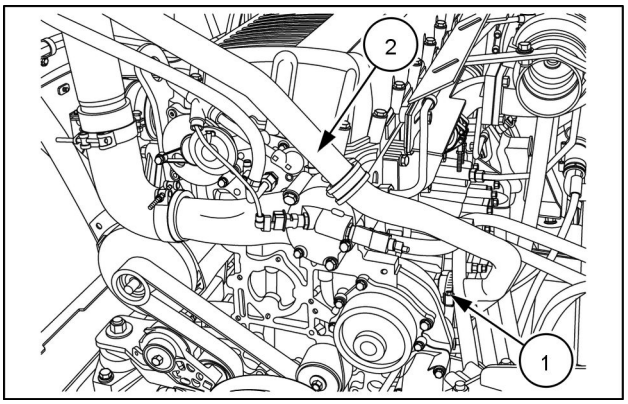
11. Loosen the clamp **(1)**. Remove the hose **(2)**.



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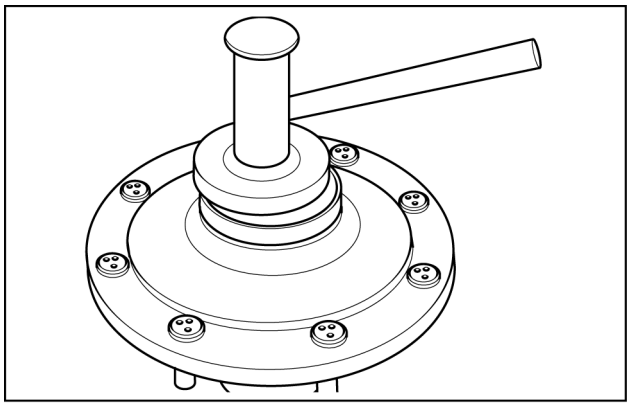
Contents

Transmission - 21

Hydraulic pump drive - 900

5. Put anti-grip on the bearing housing. Use suitable equipment to assemble the bearing cups.

NOTE: *Perform this procedure for both sides of the housing.*



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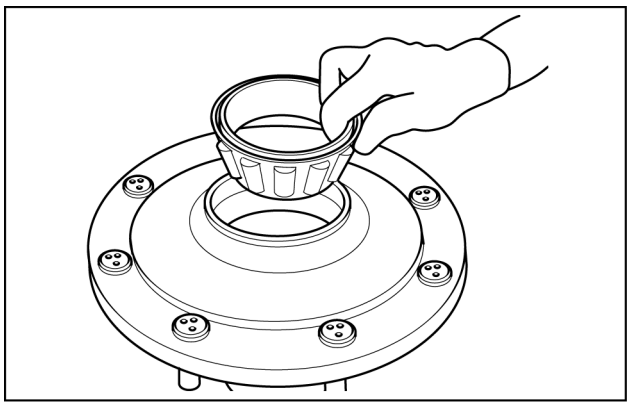
6. Turn the hub. Assemble the bearing and then the retainer. The retainer groove should face upward and be flush with the hub.
7. Turn the assembly again. Position the bearing in the pre-assembled housing.



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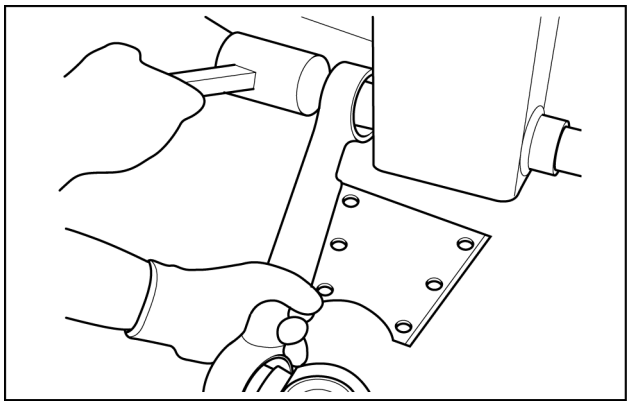
Installing the front suspension cylinder

1. Position the journal housings on the chassis shafts. Carefully tap the journals for a perfect housing on the shafts.



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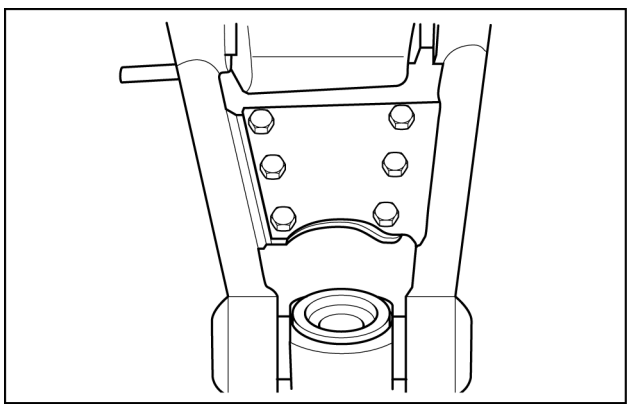
2. Secure the journals with bolts and nuts. Apply **LOCTITE® 262™**. Torque to **120.0 N·m** (**88.5 lb ft**).



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Wheel hub - Static description

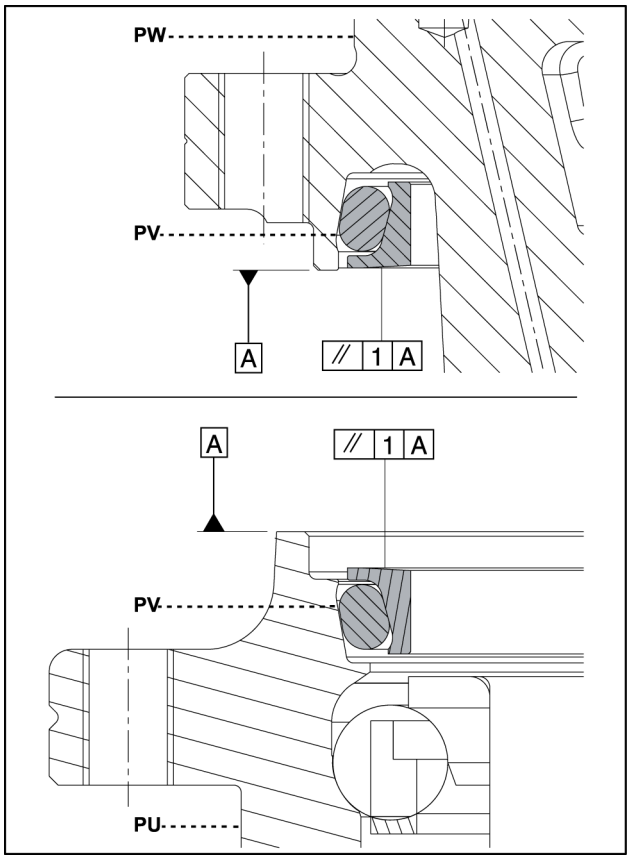
The reduction hub of the type described in this manual was developed and built to work with the hydraulic motor assembly.

The reduction ratio is 41.8:1.

The unit contains a planetary gearbox with 2 reduction stages.

An important recommendation is to plan the hydraulic system perfectly.

NOTE: *Check the correct fitting of the retainer* ***(17)****.*



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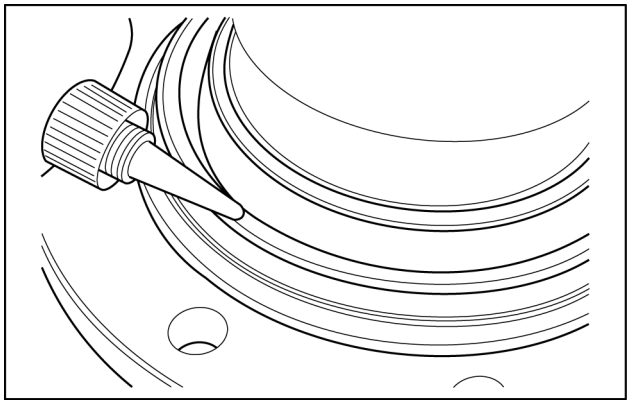
9. Clean the faces of the retainer **(17)** carefully.

NOTICE: *Apply a thin film of oil on the entire metallic face on both part of the retainer. The oil must not be placed on the surface of the retainers.*



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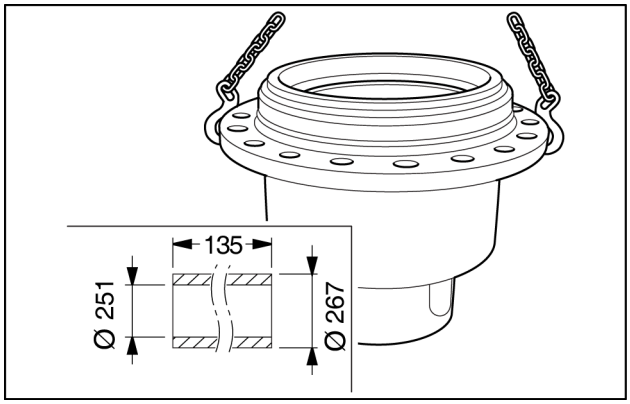
10. Using a block and tackle, place the gearbox housing **(16)** on the spacer.



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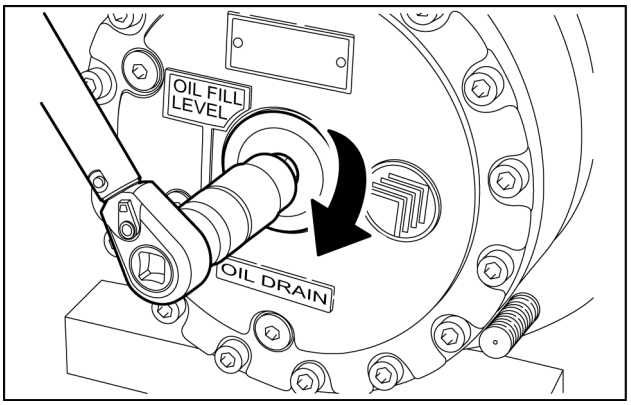
5. Tighten the disengagement plug on the assembly lid with a hexagonal wrench to a specific torque of **80 – 100 N·m**.

   Operation:

   A. Reduction hub engaged
      In this situation, the movement is transmitted to the reduction hub by means of the hydraulic motor.

   B. Reduction hub disengaged

NOTICE: *Under this condition, the hydraulic motor and brake are disconnected from the hub: The track is free to turn.*



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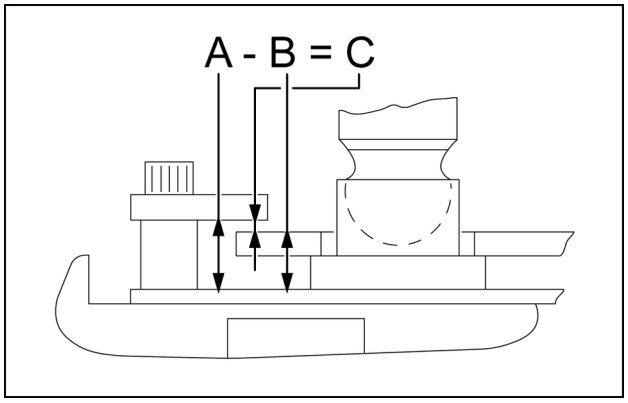
Pump - Check - pistons gliding clearance

1. Measure height A of the spacer



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2. Measure thickness B of the retaining plate and piston head.
3. Calculate clearance C by subtracting thickness B from A. C = A – B

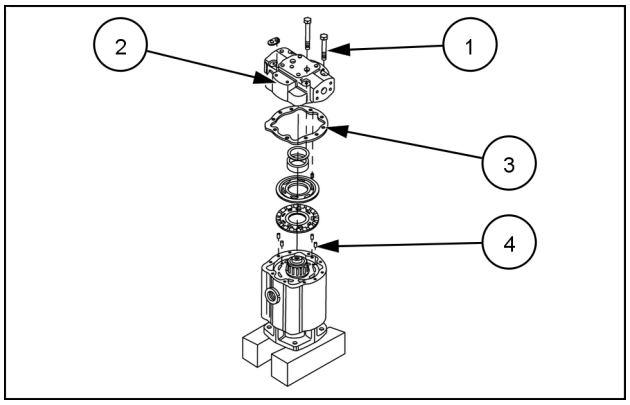
NOTE: *The clearance must not exceed* ***0.20 mm*** *(****0.008 in****).*

11. Remove the eight cover mounting bolts **(1)**.

ATTENTION: *There are loaded springs inside. To prevent damage, first remove six bolts and leave the two diagonal bolts. Then gradually and evenly remove the last two bolts.*

12. Carefully remove the cover **(2)**, the gasket **(3)**, and the guide pins **(4)**.

NOTE: *Take care not to drop any of the parts. Remove all of the parts (plate, bearing cup or shims) that may be glued to the cover.*



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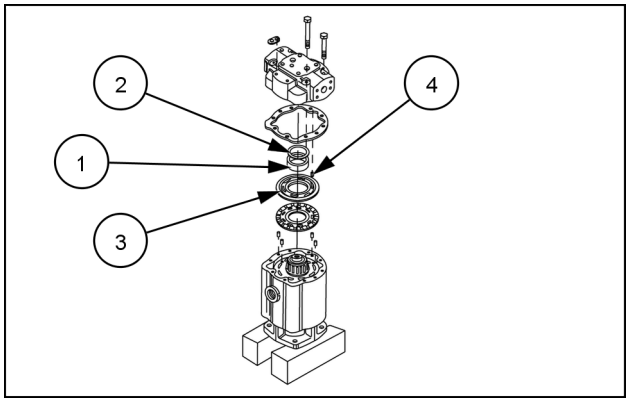
13. Remove the bearing cup **(1)**.

NOTE: *The bearing cup slides right onto the cover.*

14. Remove the shims from the bearing **(2)**.

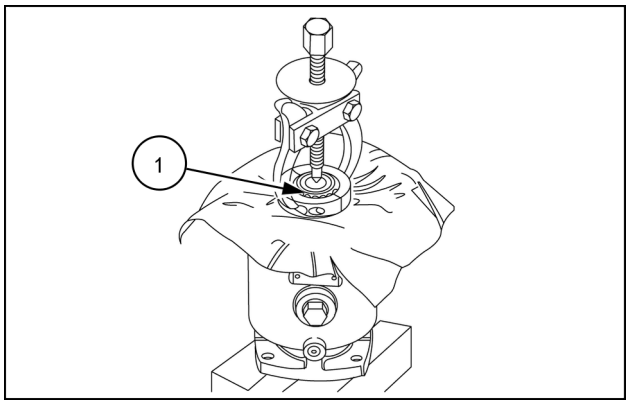
15. Remove the bearing plate **(3)** and the cylinder pins **(4)**.

NOTE: *Be careful not to scratch the plate or the cylinder. The plate and cylinder are reconditioned.*



SOIL16SC00621AA 9

16. Remove the bearing **(1)** with the puller.



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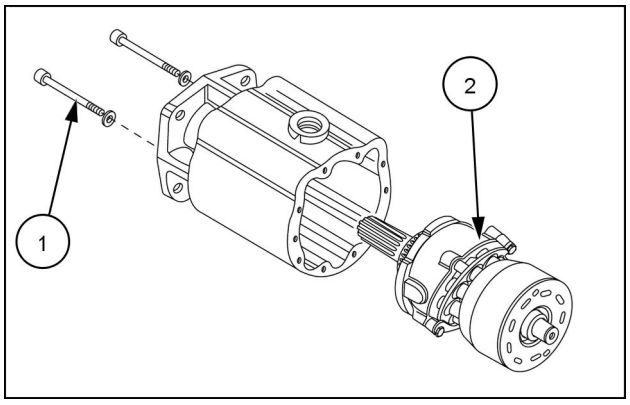
17. Remove the two bolts **(1)** that secure the plate **(2)** in the housing.

18. Push in the shaft assembly **(2)** inside to move the plate from the housing.

19. Carefully remove the output shaft assembly and cylinder housing **(2)**.



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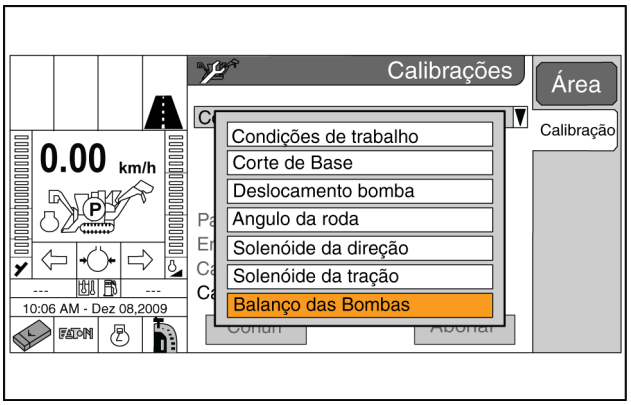
Calibrating machine alignment - Pump balance (A8800)

1. Select Pump balance.
2. Align the machine and mark a fixed point.
3. Put the machine to run at a constant speed.
4. Check the alignment and, if necessary, correct it with the joystick.
5. When the machine is running in a straight line, press Continue.
6. Next, the software will inform the operator the calibration status.



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Recommended calibration sequence

• A8000

1. Pump displacement
2. Drive solenoid
3. Pump displacement (repeat)
4. Wheel angle
5. Steering solenoid

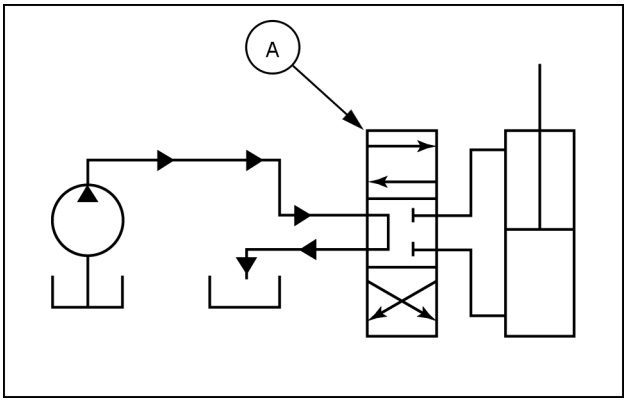
• A8800

1. Pump displacement
2. Drive solenoid
3. Pump displacement (repeat)
4. Pump balancing

NOTE: *Calibrate the pump displacement with the Cruiser engaged.*

Three position valve

Three position valves have a centered (neutral) position. The centered position can be either open or closed to flow. The open center **(A)** is usually used with a fixed displacement pump, while the closed center **(B)** is usually used with a variable displacement pump.



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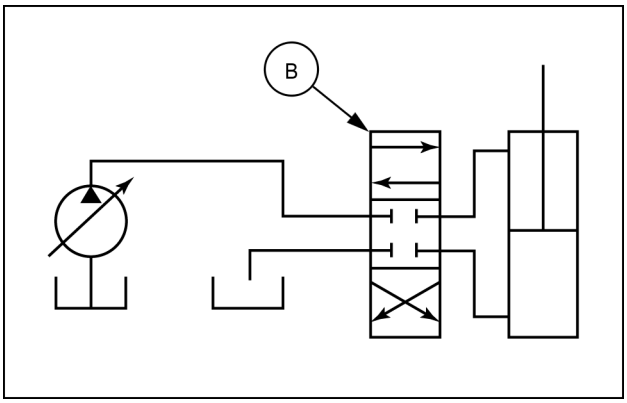

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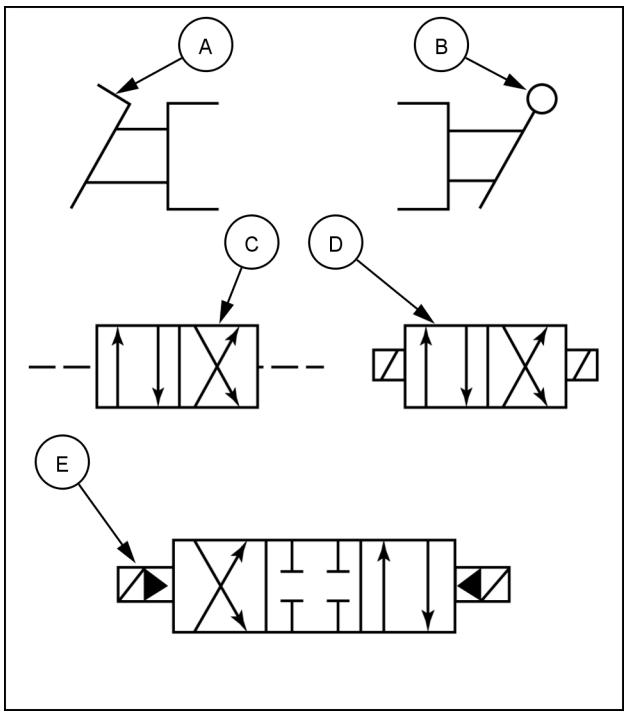
Actuating controls

Valve spools are controlled by pedals **(A)**, levers **(B)**, pilot fluid **(C)**, electric solenoids **(D)**, etc., which are called actuating controls. These actuating controls are shown by symbols placed on the ends of the envelopes.

This symbol **(E)** is used when a solenoid is controlled with internal pilot assist pressure.



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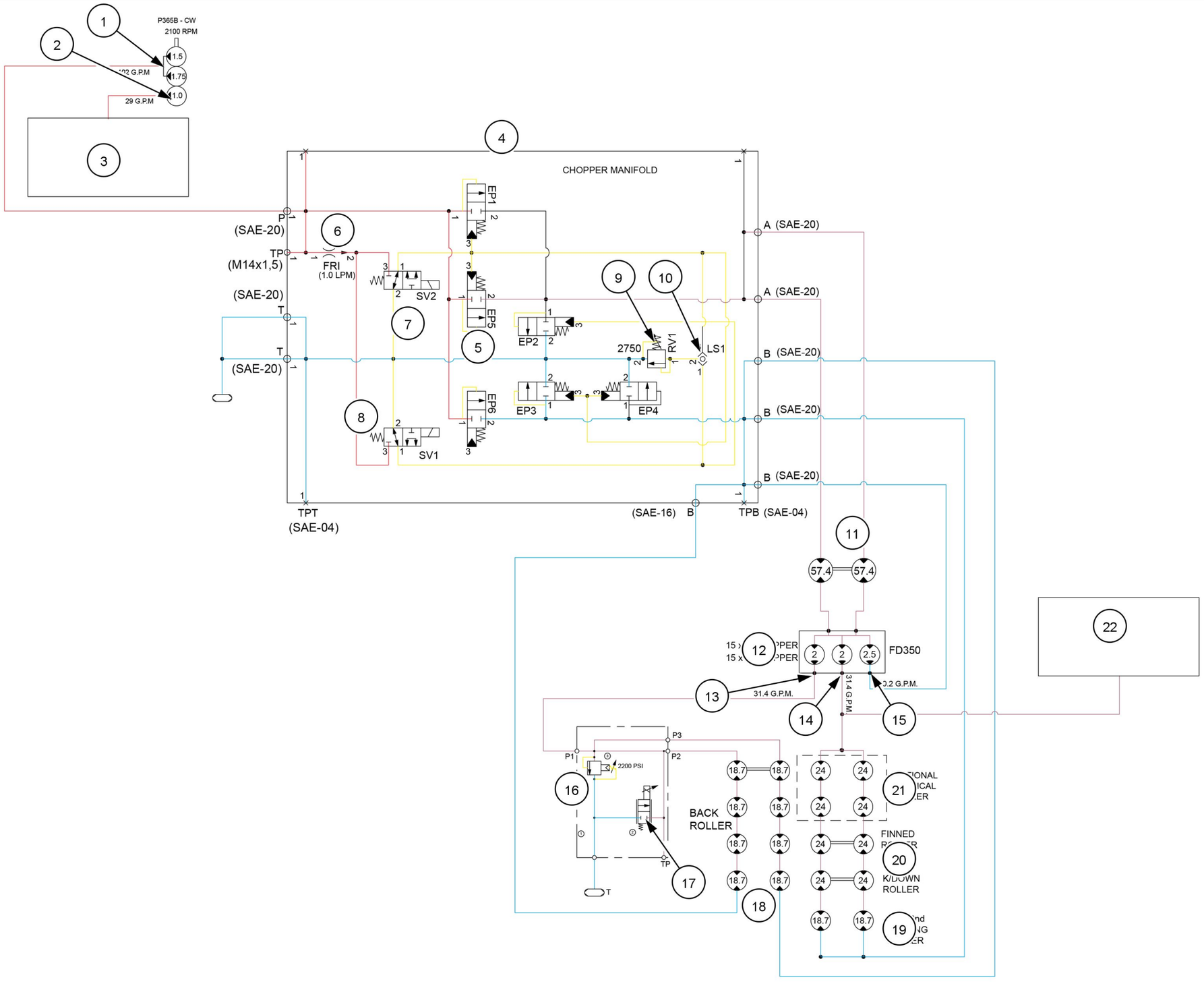
Reference	Component
(1)	**1°** body – lower tandem pump **170.3 L/min** (**45.0 US gpm**)
(2)	**2°** body – lower tandem pump. **310.4 L/min** (**82.0 US gpm**)
(3)	**3°** body – lower tandem pump. **170.3 L/min** (**45.0 US gpm**)
(4)	Primary extractor diagram
(5)	Basecutter diagram
(6)	Cooling fan valve
(7)	1.75/1.0/1.0 flow divider
(8)	**79.5 L/min** (**21.0 US gpm**) flow to the topper or shredder
(9)	**45.4 L/min** (**12.0 US gpm**) flow to cylinder functions
(10)	**45.4 L/min** (**12.0 US gpm**) flow to side knives
(11)	Piloted directional valve – EV1 and EV2
(12)	Piloted directional valve – EV3 and EV4
(13)	Lockout valve – CV1 and CV2
(14)	Lockout valve – CV5 and CV6
(15)	Lockout valve – CV3 and CV4
(16)	Solenoid valve – reverser
(17)	Proportional valve
(18)	Motor – **0.1 L** (**4.9 in³**) series 2000
(19)	Cylinder functions schematic
(20)	Side knives schematic
(21)	Topper schematic
(22)	Shredder schematic

Hydraulic systems - Hydraulic schema Steering by steering wheel

8000 FPT engine, TIER 3 [PRCY8000PGPA03064 -]	
8000 FPT engine, TIER 3 [PRCY8000PGPA03064 -]	--- ---



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Pump Tandem gear pump - Dynamic description 8800 - Multi Row

Lower pump

The lower tandem pump captures the hydraulic oil through two inlets and provides oil flow through four outlets:

Outlet 1 provides **170.3 L/min** (**45.0 US gpm**) to the primary extractor motor.

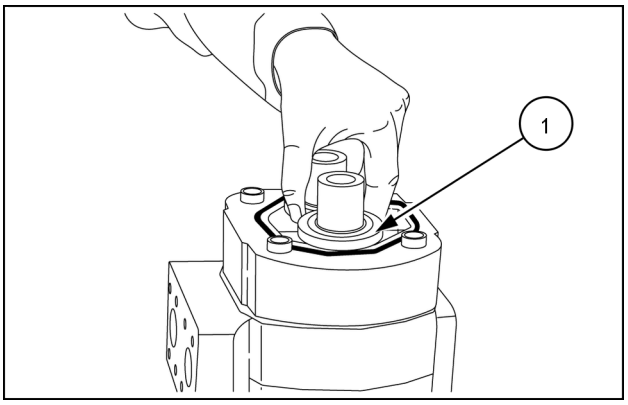
Outlets 2 and 3 provide the whole **310.4 L/min** (**82.0 US gpm**) to the basecutter motor. The remaining flow is provided to the motors of the lift rollers and the first lower feeder roller. The remaining flow from the other outlet drives the roller motors of the line dividers.

Outlet 4 provides **170.3 L/min** (**45.0 US gpm**) to the cooling fan motor. The remaining flow is directed to the three-outlet FD30 flow distributor, distributed as follows.

1. **79.5 L/min** (**21.0 US gpm**)to the drive of the cutter or topper
2. **45.4 L/min** (**12.0 US gpm**)to the drive of the side knife motors
3. **45.4 L/min** (**12.0 US gpm**)to the hydraulic cylinders function block

Reference	Component
(1)	**1°** Outlet 1 **170.3 L/min** (**45.0 US gpm**)
(2)	**2°** Outlets 2 and 3. **310.4 L/min** (**82.0 US gpm**)
(3)	**3°** Outlet **170.3 L/min** (**45.0 US gpm**)
(4)	Primary extractor block
(5)	Primary extractor engine
(6)	Basecutter block
(7)	Basecutter motor
(8)	Line divider motors
(9)	Lift motors
(10)	First fixed roller motor for the feeder
(11)	Cooling fan block
(12)	Cooling fan block
(13)	1.75/1.0/1.0 flow divider
(14)	Divider outlet 1 – **79.5 L/min** (**21.0 US gpm**) flow
(15)	Topper or shredder block
(16)	Topper or shredder motors
(17)	Divider outlet 2 – **45.4 L/min** (**12.0 US gpm**) flow to side knives
(18)	Side knives block
(19)	Side knives motors
(20)	Divider outlet 3 – **45.4 L/min** (**12.0 US gpm**) flow to cylinder functions
(21)	Track tensioner
(22)	6-function block
(23)	Auxiliary 4- or 5-function block
(24)	Basecutter height/suspension
(25)	Post-chopper flow divider
(26)	Knock-down rollers
(27)	Pressure relief valve of the roller lines
(28)	Side opening block

9. Remove the impeller plate **(1)**.



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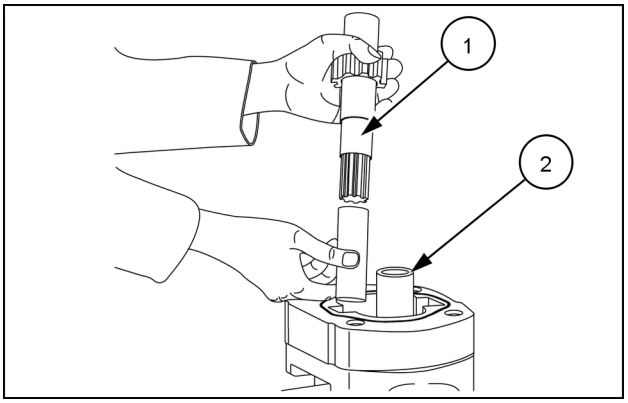
10. Remove the other sections of the pump. Follow steps **5** to **9**.
11. Remove the main gear shaft **(1)** and the driven shaft **(2)**.



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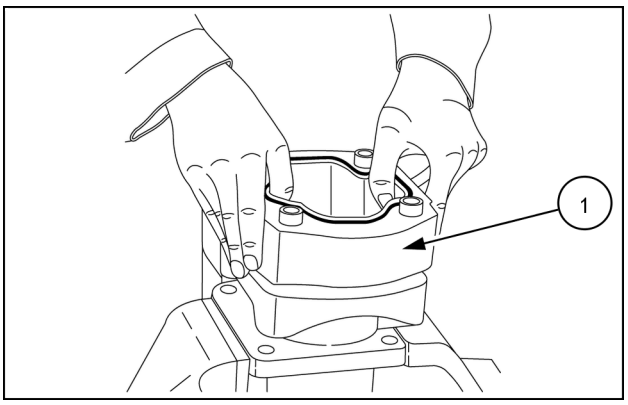
12. Remove the gear body **(1)** from the first section.



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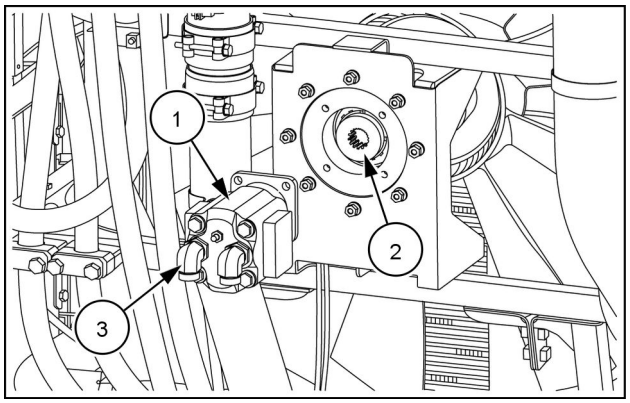
13. Inspect all of the bushings of the journal bodies for scratches and discoloration.

Fan motor - Install

Prior operation:
Fan motor - Remove (35.752)

1. Install the hydraulic motor **(1)** on the splined coupling **(2)**, with the fittings **(3)** facing downward.



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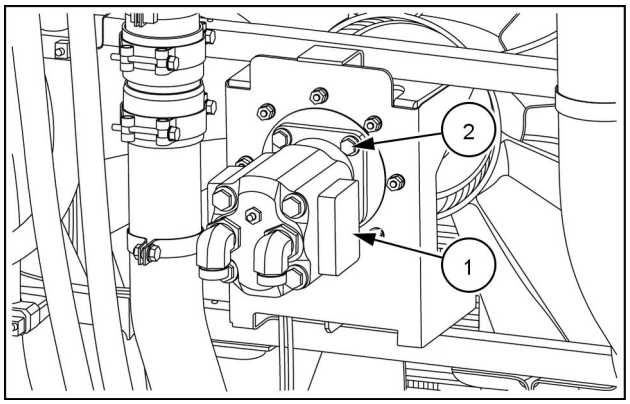
2. Attach the hydraulic motor **(1)** with the bolts **(2)**. Apply the torque recommended on page **Torque - Minimum tightening torques for normal assembly ()** .



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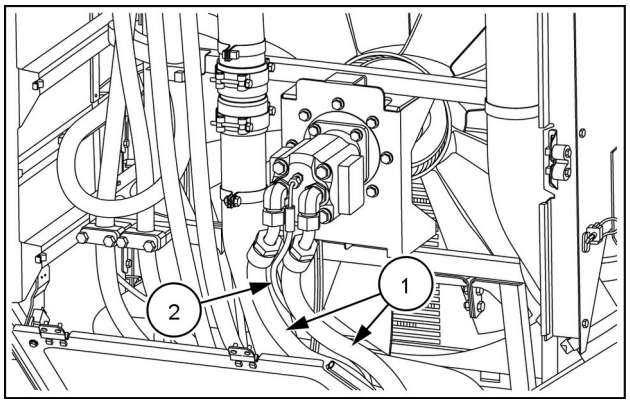
3. Connect the return and pressure hoses **(1)**.
4. Connect drain hose **(2)**.

NOTE: *Tighten the hydraulic fittings to the torque recommended on page* ***Torque - Standard torque data for hydraulic connections****.*



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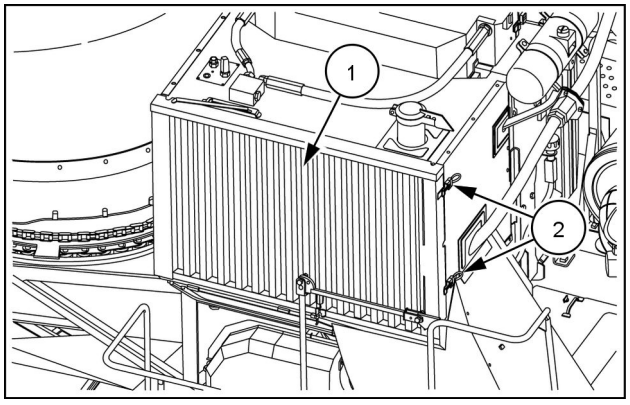
5. Close the access door **(1)**. Apply the side latches **(2)**.



SOIL17SC00152AA 4

Chopper manifold - General specification

Brand	Hydraulic Designers
Location	Fixed on the outside of the pump compartment, near the hydraulic oil pressure filters
Solenoid connector	Deutsch DT04-2P
Voltage	**12 V**
Flow	**390 L/min** (**103 US gpm**)
Working pressure	**195 bar** (**2828 psi**)
Maximum pressure	**240 bar** (**3480 psi**)

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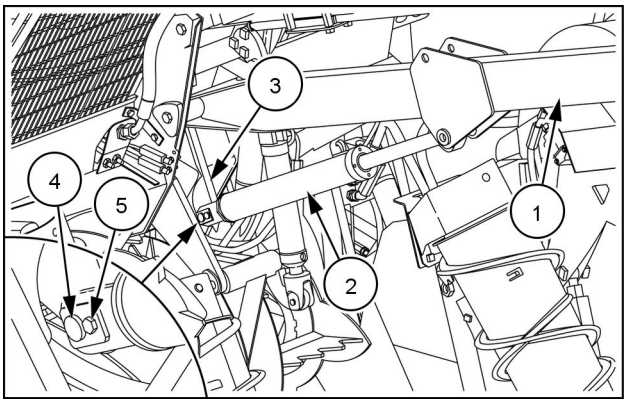
Hydraulic systems - 35

Chopper control system - 965

Topper hydraulic cylinder - Install

Prior operation:
Topper hydraulic cylinder - Remove (35.670)

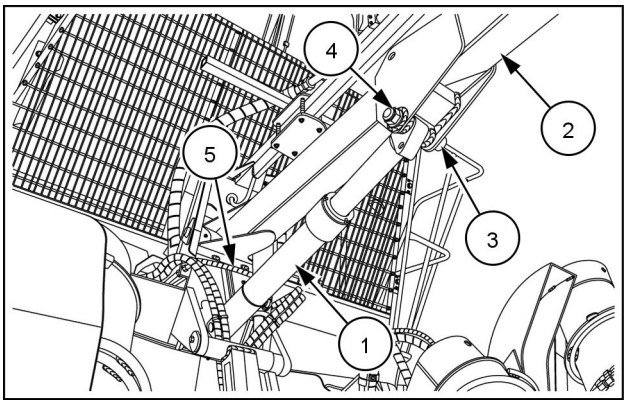
1. Support the arm **(1)** of the topper assembly with a suitable lifting device, or safely block the arm with jack stands, in order to position the cylinder **(2)** on the fastening points.
2. Secure the cylinder **(2)** on the rear cradle **(3)**. Install the pin with lock **(4)** and the bolt **(5)**.



SOIL17SC00122AA 1

3. Secure the cylinder **(1)** to the arm **(2)**. Install the pin **(3)** and the nut **(4)**.
4. Connect the hydraulic hose **(5)**.

NOTE: *Tighten the hydraulic fitting to the torque recommended on page* ***Torque - Standard torque data for hydraulic connections****.*



SOIL17SC00121AA 2

Side trim manifold - Remove

⚠ CAUTION

Escaping fluid!
Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.
Failure to comply could result in minor or moderate injury.

C0104A

⚠ WARNING

Pressurized system!
Before attempting any service procedure, it is your responsibility to know the number of accumulators on the machine, and the correct procedure for releasing the pressure of each accumulator.
Failure to comply could result in death or serious injury.

W0136A

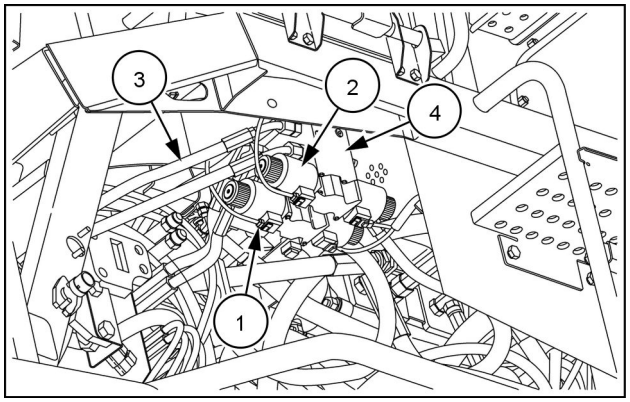
1. Disconnect the connectors **(1)** from the solenoids **(2)**.

NOTE: *Label the electrical connectors to avoid a reversal of position during connection.*

2. Disconnect the hydraulic hoses **(3)**, nine units in all.

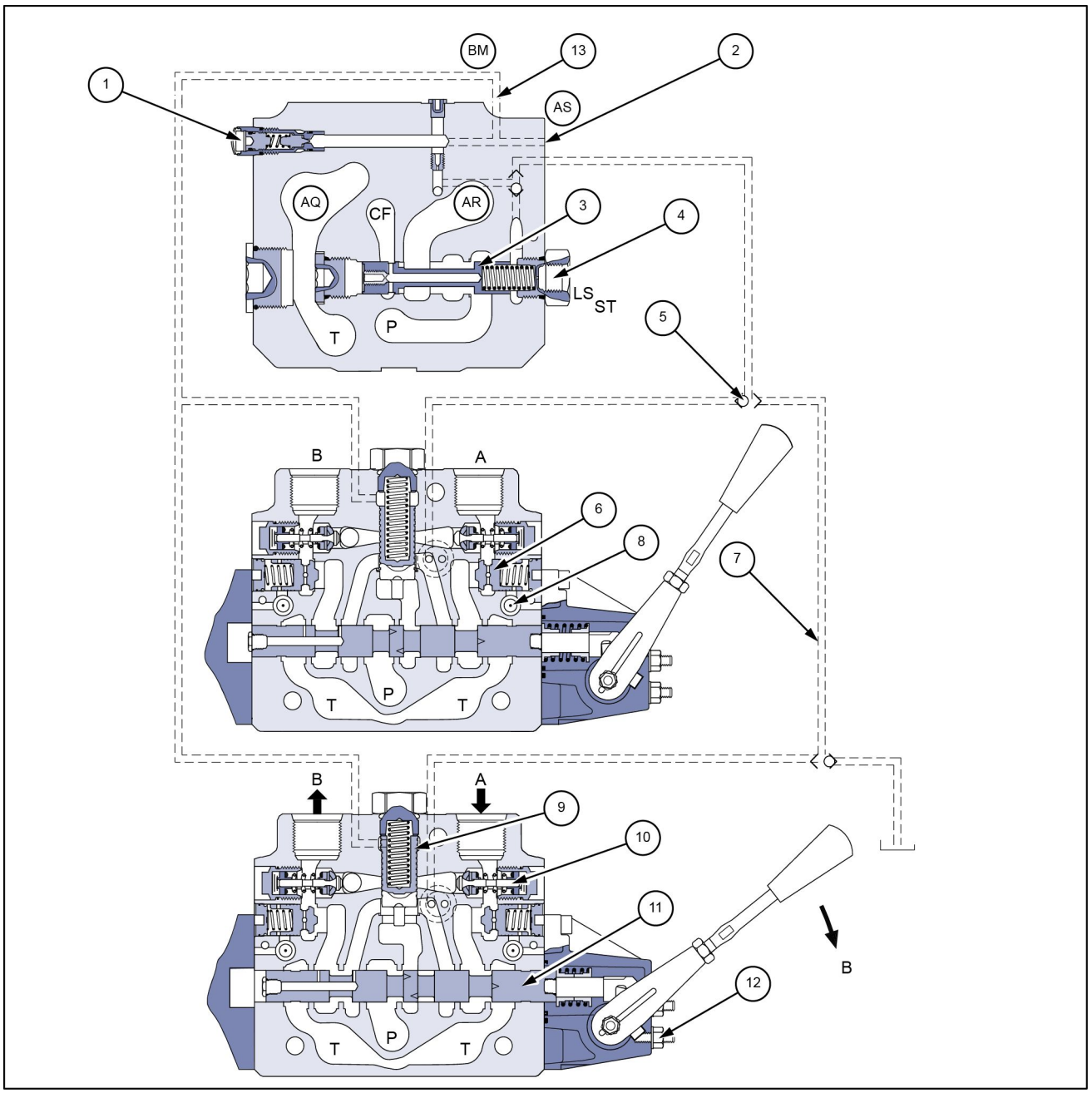
NOTE: *Label the hoses as to the correct connection ports on the valve **(4)**.*

NOTE: *Install plugs into the hoses and into the ports of the valve, to prevent the flow of oil and the entry of dirt.*



SOIL17SC00129AA 1

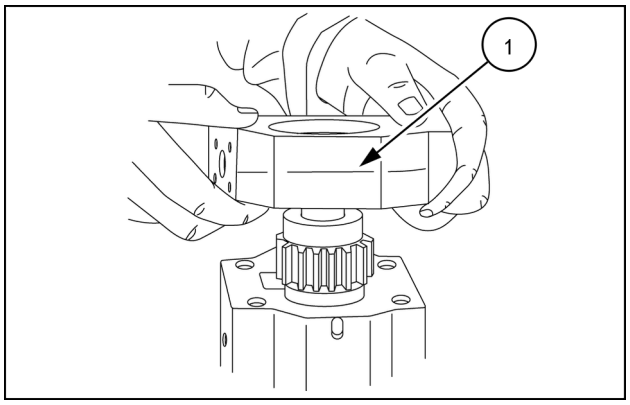
Base cutter manifold - Sectional view - Front basecutter - PVG 100



PIIL13SC00066GB 1

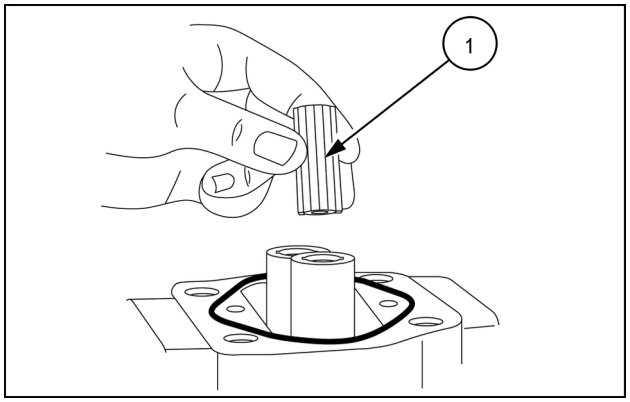
1.	LS relief valve	8.	Logic cartridge for POC
2.	LS Connection	9.	Pressure Compensator
3.	Priority spool for CF	10.	Shock and suction valve, PVLP
4.	LS connection for steering unit	11.	Main spool, PVBS
5.	Shuttle valve	12.	Max. oil flow adjustment screws for ports A and B
6.	Pilot operated check valve, POC	13.	LS comp (LS signal sent back to compensators)
7.	LS line	BM	LS comp
AS	LS pump	AQ	Port T
CN	Port P		

17. Fit the journal housing **(1)** of the next section with the impeller plate, the pocket seals, and the bearings properly installed.



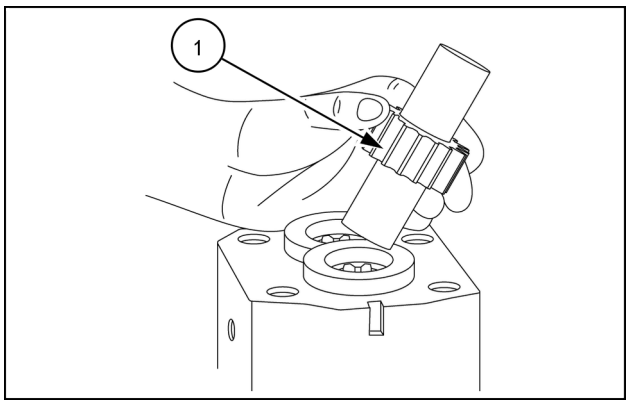
SOIL16SC00425AA 12

18. Insert the link rods **(1)**.



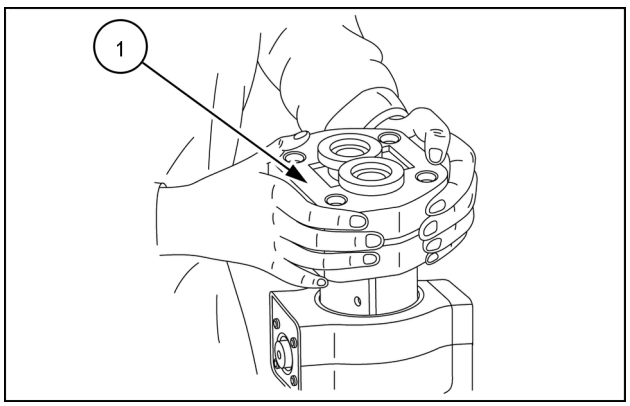
SOIL16SC00426AA 13

19. Fit the next gear housings.
20. Insert the gear shafts **(1)**



SOIL16SC00427AA 14

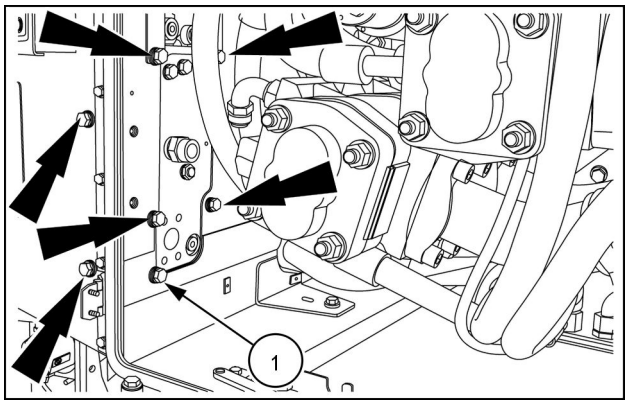
21. Install the gear housing **(1)**



SOIL16SC00389AA 15

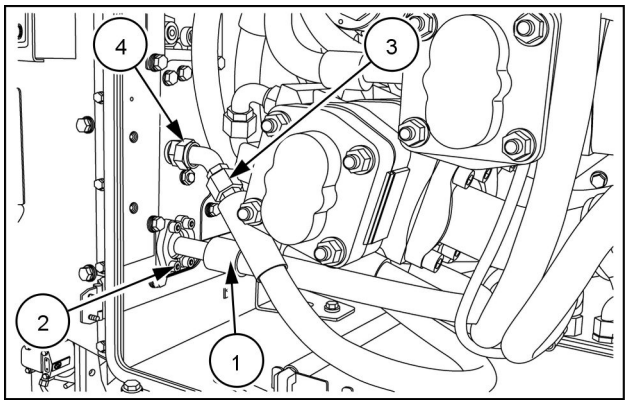
Base cutter manifold - Install

1. Fit the control block. Install the seven bolts **(1)**.



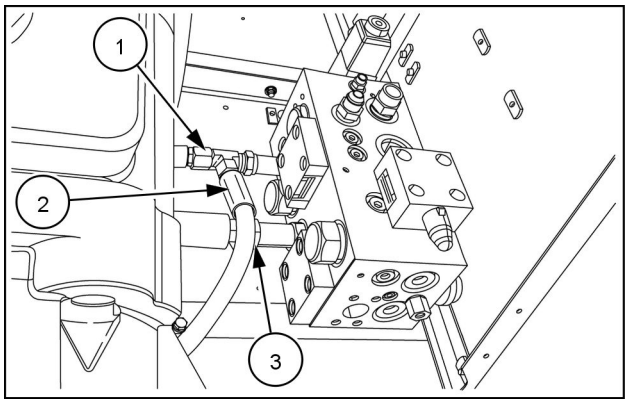
SOIL16SC00377AA 1

2. Connect the hose **(1)**. Install the four flange bolts **(1)**.
3. Connect the hose **(3)**. Tighten the fitting **(4)**.



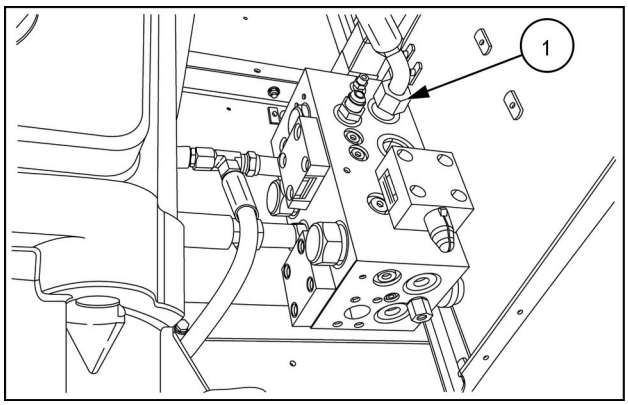
SOIL16SC00376AA 2

4. Connect the hoses **(1)** **(2)**.
5. Connect the hose **(3)**.



SOIL16SC00384AA 3

6. Connect the hose **(1)**.



SOIL16SC00383AA 4

Knock-down rollers hydraulic motor - Assemble - 2000 Series

1. With the aid of a suitable press, or with the use of a plastic or rubber hammer, install a new dust seal **(1)** on the front housing **(2)**.

NOTE: *The seal lip **(1)** must be towards the outside of the housing **(2)**, as shown in the detail.*

NOTE: *Lubricate the internal diameter of the seal **(1)** with petroleum jelly.*

2. Assemble the back up washer **(3)** and a new shaft retainer **(4)** on the inside seat of the housing **(2)**.

NOTE: *Note the correct assembly position of the retainer **(4)**, as shown in the detail.*

NOTE: *Use a suitable device to install the retainer **(4)** under pressure.*

NOTE: *Lubricate the internal diameter of the retainer **(4)** with petroleum jelly.*

3. Secure the front housing **(2)** in a vise.

4. With the aid of a suitable press, install the shaft assembly **(5)** and bearings **(6)** in the housing **(2)**.

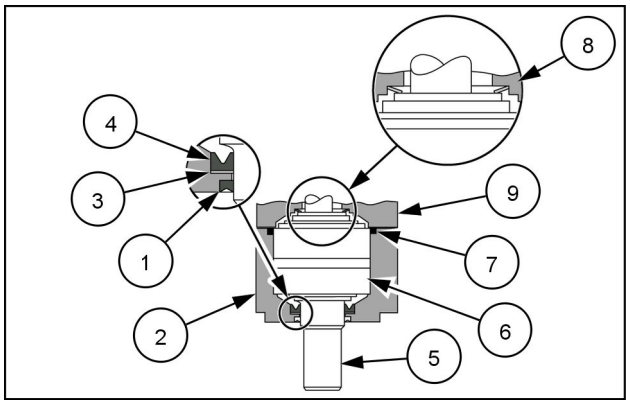
NOTE: *To prevent leaks, take care to not damage the retainer **(4)**.*

5. Install a new **76 mm** (**3 in**) seal ring **(7)**, previously lubricated with petroleum jelly.

6. Install the shaft face seal **(8)** on the wear plate **(9)**, as shown in the detail.

7. Install the wear plate **(9)** in the front housing **(2)**.

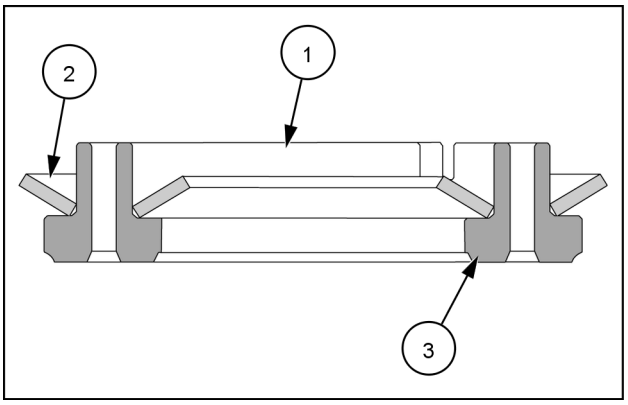
8. Install a new **76 mm** (**3 in**) seal ring, previously lubricated with petroleum jelly, on the outer face of the wear plate **(9)**.



PIIL17SC00219AA 1

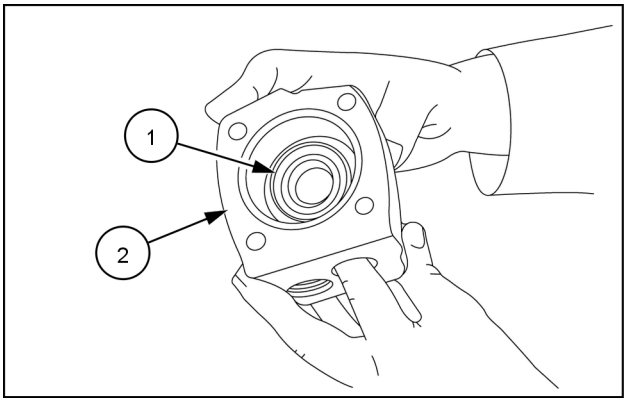
21. Lubricate the inner **(1)** and outer **(2)** retainers of the balance ring **(3)** with petroleum jelly. Afterwards, install the components as shown.

NOTE: *These seals must be mounted in the position indicated. Otherwise, the engine will not operate properly. For the same reason, be careful not to bend the parts during assembly.*



PIIL17SC00222AA 5

22. Align the existing pin notches in the balance ring **(1)** with the pins already assembled inside of the rear housing **(2)**. To obtain this alignment, install the balance ring in the housing.
23. Insert a finger through the port of the housing **(2)** in order to hold the balance ring assembly **(1)** to finish installation, as shown.

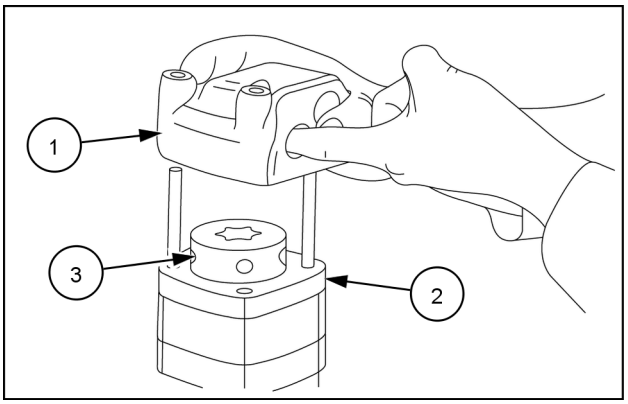


PIIL17SC00223AA 6

24. Install the rear housing **(1)** on the valve plate **(2)**.

NOTE: *As soon as the balance ring is seated on the valve **(3)**, remove your finger from the port.*

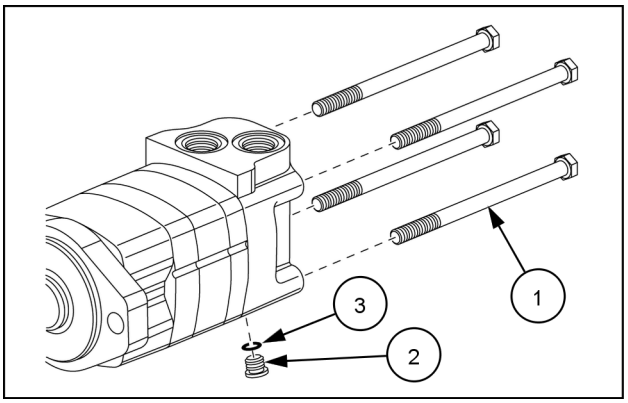
NOTE: *After you install the housing **(1)**, press the housing down and release. A small spring action should occur.*



PIIL17SC00224AA 7

25. Install the through bolts **(1)**. Torque the through bolts in a criss-cross pattern to **50 N·m** (**37 lb ft**).
26. Assemble the drain plug **(2)** with a new O'ring **(3)**. Torque to **6 N·m** (**4 lb ft**).

NOTE: *Lubricate the O'ring with petroleum jelly.*



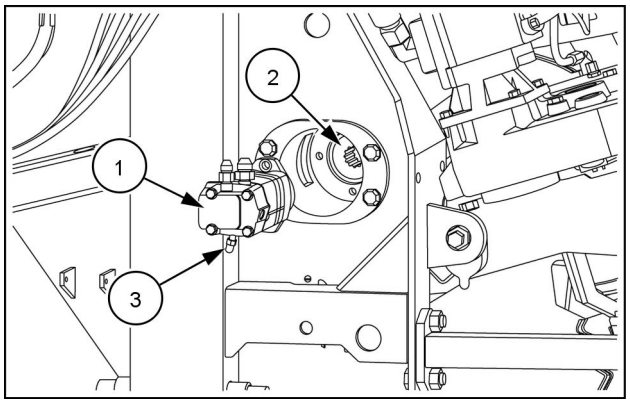
PIIL17SC00225AA 8

Next operation:
Hydraulic motor of the butt lifter roller – Install

Finned roller hydraulic motor - Install

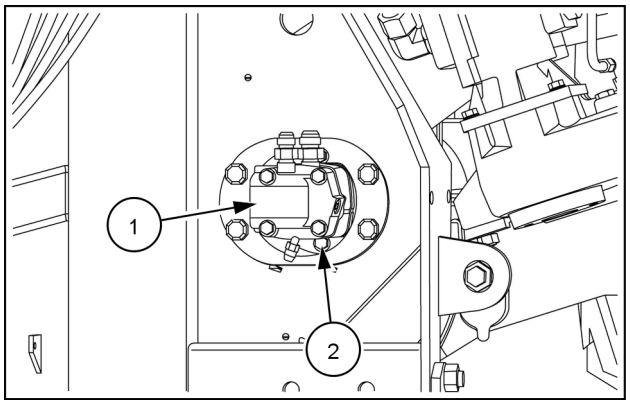
Prior operation:
Finned roller hydraulic motor - Assemble (35.680)

1. Mount the hydraulic motor **(1)** on the splined coupling **(2)**, with the drain fitting **(3)** facing downward.



SOIL17SC00111AA 1

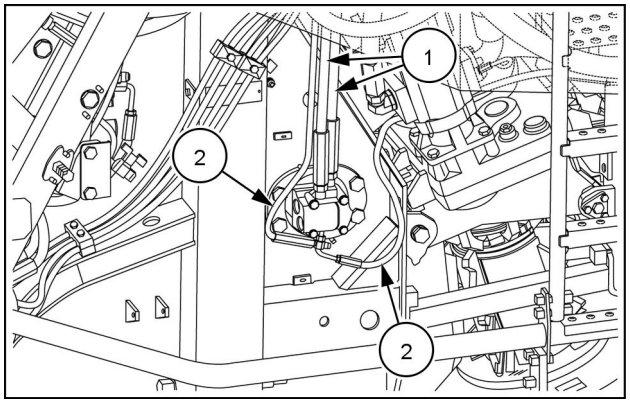
2. Attach the hydraulic motor **(1)** with the bolts **(2)**. Apply the torque recommended on page **Torque - Minimum tightening torques for normal assembly ()** .



SOIL17SC00115AA 2

3. Connect the return and pressure hoses **(1)** and the drain hoses **(2)**.

NOTE: *Tighten the hydraulic fittings to the torque recommended on page* ***Torque - Standard torque data for hydraulics ()*** .



SOIL17SC00114AA 3

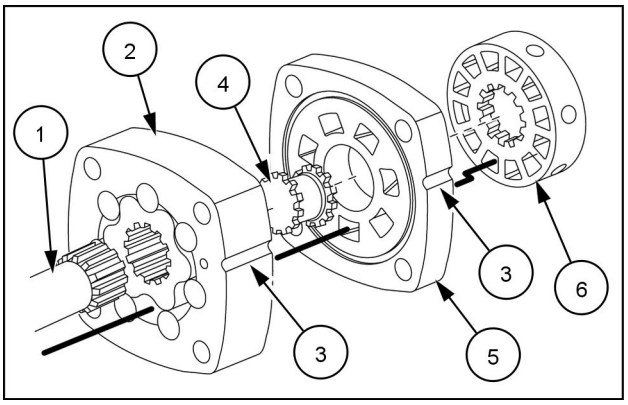
9. Fit the splined driver **(1)** in the rear opening of the output shaft.
10. Install the gerotor assembly **(2)** on the wear plate. Pay attention to the alignment between the outside notches **(3)** of the parts.

NOTE: *Be careful to retain the rolling components of the gerotor in position during assembly.*

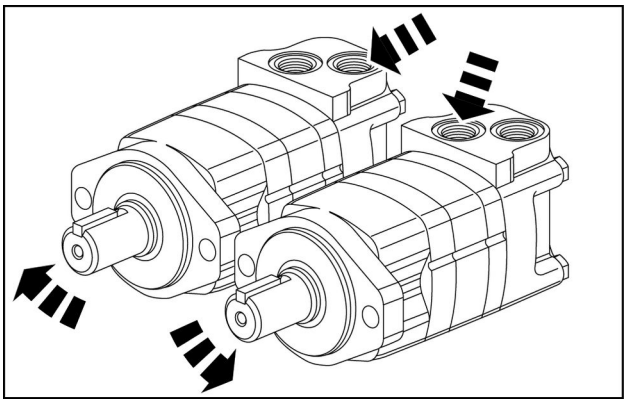
11. Install the valve driver **(4)** in the gerotor **(2)**.
12. Locate the point of widest clearance between the rolling components of the gerotor **(2)**. Make a mark on the outside of the gerotor, aligned with this clearance point (see the lines).
13. Install a new seal ring **76 mm** (**3 in**) on the inner face of the valve plate **(5)**. Lubricate the seal ring with petroleum jelly before installation.
14. Align the outside notches **(3)** of the valve plate **(5)** and the gerotor **(2)**.
15. Locate the slit through the valve plate **(5)** that is aligned with the clearance point marked on the outside of the gerotor **(2)**.
16. Align any of the six slits through the valve **(6)** with the slit through the valve plate **(5)** that is aligned with the mark on the gerotor **(2)**.
17. Install and turn the valve **(6)** clockwise until the splined teeth fit in place.

NOTE: *This valve seating **(6)** will provide the rotation indicated in the figure **3**, according to the motor port where the pressure hose is connected.*

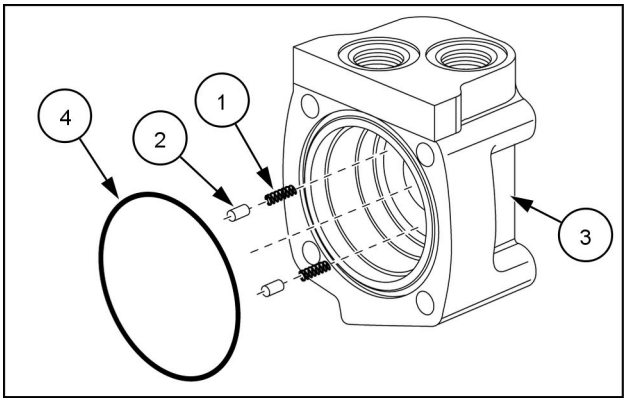
18. Apply **CASE IH AKCELA MOLY GREASE** grease on the springs **(1)**.
19. Install the pair of springs **(1)** and pins **(2)** in the holes located inside of the rear housing **(3)**.
20. Install a new **76 mm** (**3 in**) **(4)** seal ring. Lubricate the seal ring with petroleum jelly before installation.



PIIL17SC00220AA 2



SOIL17SC00113AA 3



PIIL17SC00221AA 4

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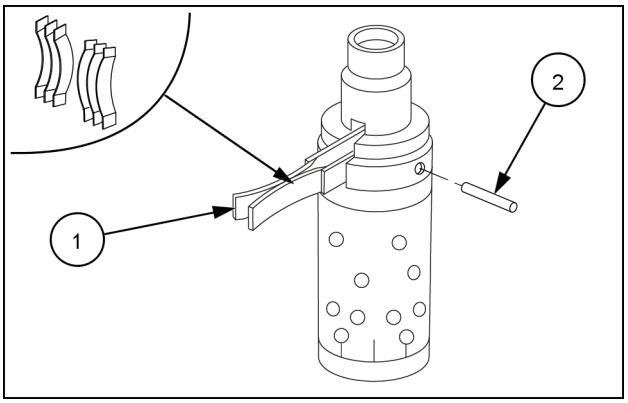
9. Remove the centering springs **(1)**.

NOTE: *The arrangement of the springs must remain the same after reassembly.*

10. Remove the lock pin **(2)** from the valve spool.
11. Separate the spool from the control valve sleeve.
12. Remove the seal ring.



PIIL15SC00243AA 8

Next operation:
Power steering control valve - Inspect (41.200).

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Steering - 41

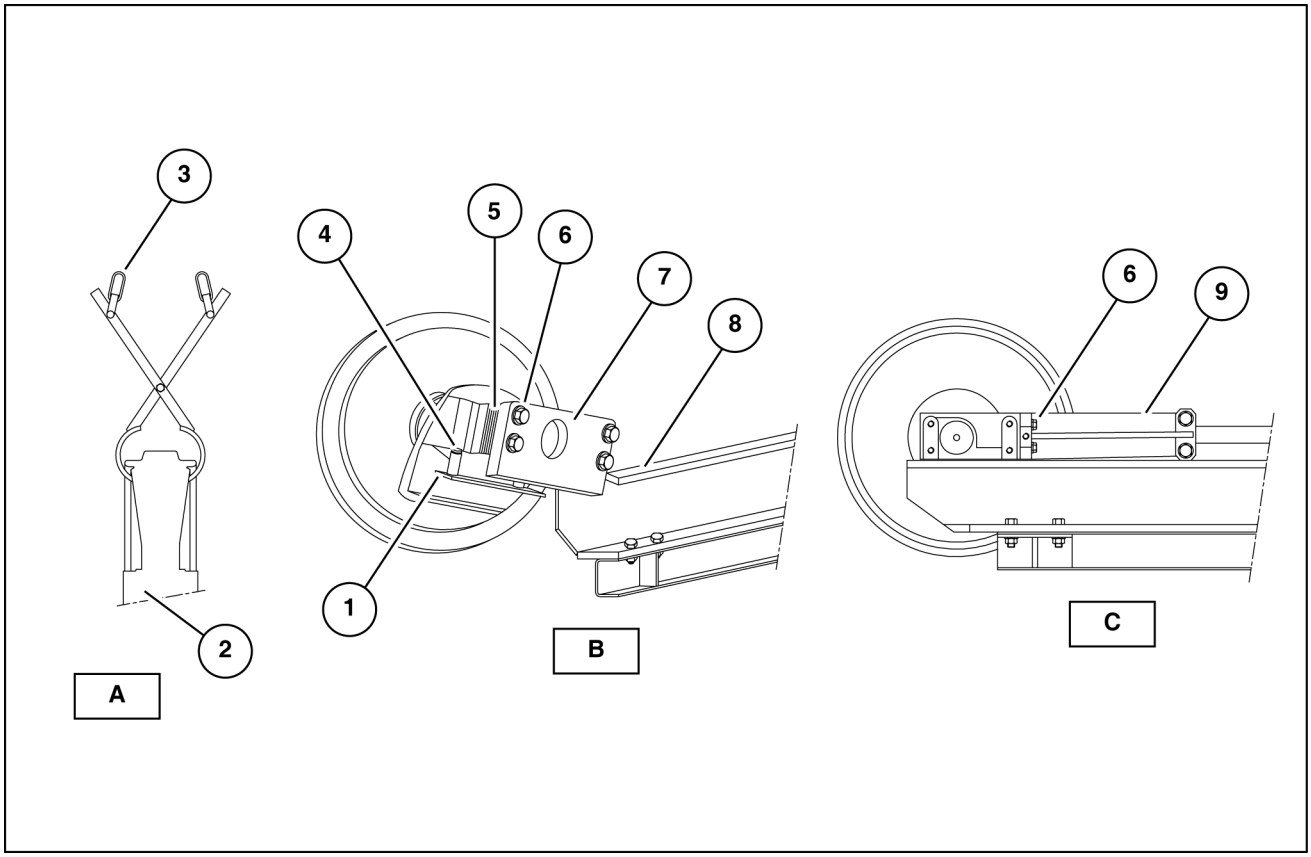
Cylinders - 216

(*) See content for specific models

Track frame - Overview - Guide wheel

8800 FPT engine, TIER 3 [PRCY8800KGPA03065 -]	--- --- ---

Overview of the guide wheel

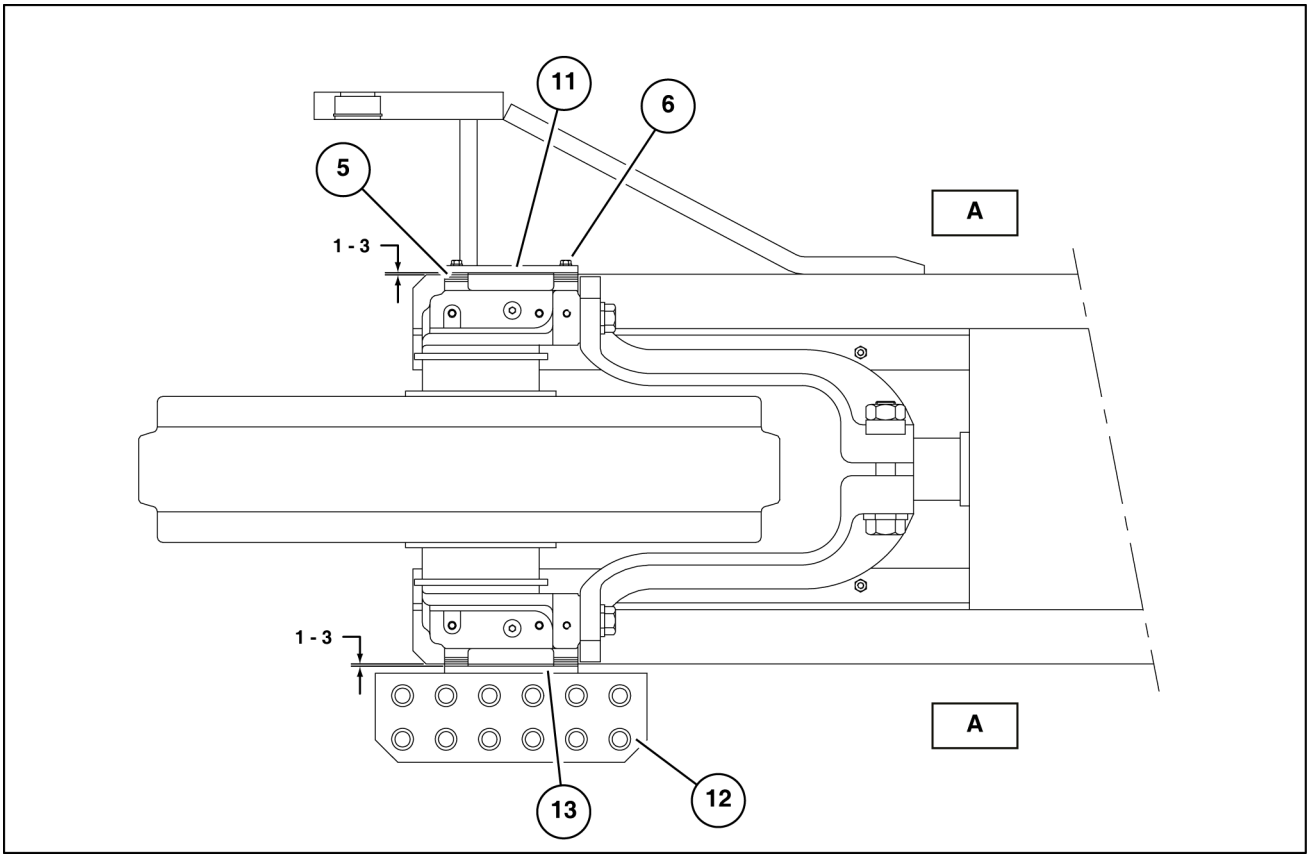


BRIL12SC1306F0A 1

1. Cradle with spring
2. Guide wheel
3. Lift tweezers
4. Shim
5. Spacer
6. Bolt smooth washer
7. Guide
8. Guide wheel support face
9. Arm

A. Fig. 1
B. Fig. 2
C. Fig. 3

36. Position the step, supporting it against the face of the guide without a bevel and set with bolts and flat washers, applying a torque of **150 – 180 N·m**.



BRIL12SC1308F0A 5

Track chain - Install

8800 FPT engine, TIER 3 [PRCY8800KGPA03065 -]	--- --- ---

1. Install the bolts in the shoes with a torque of **160 – 170 N·m**, plus 1/2 a turn.
2. Re-adjust the track chain.

Contents

Cab climate control - 50

Air conditioning - 200

SERVICE

A-076 - STANDARD GPS (ECU)

Component Type	ECU
Wiring frames	**SHEET 31**
Connectors	**X-401GPS (Receptacle)**

A-078 - NAV MODULE CONTROLLER (ECU)

Component Type	ECU
Wiring frames	**SHEET 14**
Connectors	**X-026 (Receptacle)** **X-024 (Receptacle)**

A-079 - FUSEBOX - NAV/DGPS (ECU)

Component Type	ECU
Wiring frames	**SHEET 14**
Connectors	**X-401DGPS (Receptacle)**

A-080 - MOD-008 GARMIN GPS (ECU)

Component Type	ECU
Wiring frames	**SHEET 14**

A-081 - (ECU)

Component Type	ECU
Wiring frames	**SHEET 44**

A-083 - MOD-003 SCM3 X-301 (ECU)

Component Type	ECU
Wiring frames	**SHEET 13**

A-084 - SCM 2 (ECU)

Component Type	ECU
Wiring frames	**SHEET 06** **SHEET 08** **SHEET 13** **SHEET 15** **SHEET 25** **SHEET 34**
Connectors	**X-201 (Receptacle)**

A-088 - DAM PART 1 (ECU)

Component Type	ECU
Wiring frames	**SHEET 16**

A-089 - RIGHT HAND CONSOLE (ECU)

Component Type	ECU
Wiring frames	**SHEET 13**

A-090 - AIRCO BLOWER (ECU)

Component Type	ECU
Wiring frames	**SHEET 19**
Connectors	**X-157 (Plug)**

GND-019 - GND-006 (Ground)

Component Type	Ground
Wiring frames	**SHEET 50**

GND-025 - (Ground)

Component Type	Ground
Wiring frames	**SHEET 05**

GND-038 - CABIN BACKPANEL (Ground)

Component Type	Ground
Wiring frames	**SHEET 09**

GND-042 - CHASSIS GROUND (Ground)

Component Type	Ground
Wiring frames	**SHEET 17**

GND-047 - (Ground)

Component Type	Ground
Wiring frames	**SHEET 17**

GND-048 - (Ground)

Component Type	Ground
Wiring frames	**SHEET 18**

GND-049 - FUSE PANEL (Ground)

Component Type	Ground
Wiring frames	**SHEET 18**

GND-051 - (Ground)

Component Type	Ground
Wiring frames	**SHEET 19**

GND-055 - (Ground)

Component Type	Ground
Wiring frames	**SHEET 50**

GND-058 - ENGINE BOX (Ground)

Component Type	Ground
Wiring frames	**SHEET 19**

GND-060 - (Ground)

Component Type	Ground
Wiring frames	**SHEET 21**

GND-097 - (Ground)

Component Type	Ground
Wiring frames	**SHEET 28**

Y-046 - BASECUTTER CHOPPER ROTATION REVERSE (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 29**
Connectors	**X-255 (Receptacle)**

Y-047 - BILLETLENGTH VALVE (PWM) (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 25**
Connectors	**X-256 (Receptacle)**

Y-048 - TOPPER THROW DIRECTION LEFT (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 26**
Connectors	**X-257 (Receptacle)**

Y-049 - TOPPER THROW DIRECTION RIGHT (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 26**
Connectors	**X-258 (Receptacle)**

Y-050 - ELEVATOR BLOCK PILOT VALVE (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 30**
Connectors	**X-259 (Receptacle)**

Y-051 - ELEVATOR CONVEYOR FORWARD (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 30**
Connectors	**X-260 (Receptacle)**

Y-052 - ELEVATOR CONVEYOR REVERSE (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 30**
Connectors	**X-261 (Receptacle)**

Y-053 - SECONDARY EXTRACTOR FAN (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 30**
Connectors	**X-262 (Receptacle)**

Y-054 - SEC HOOD SLEW RIGHT (Solenoid)

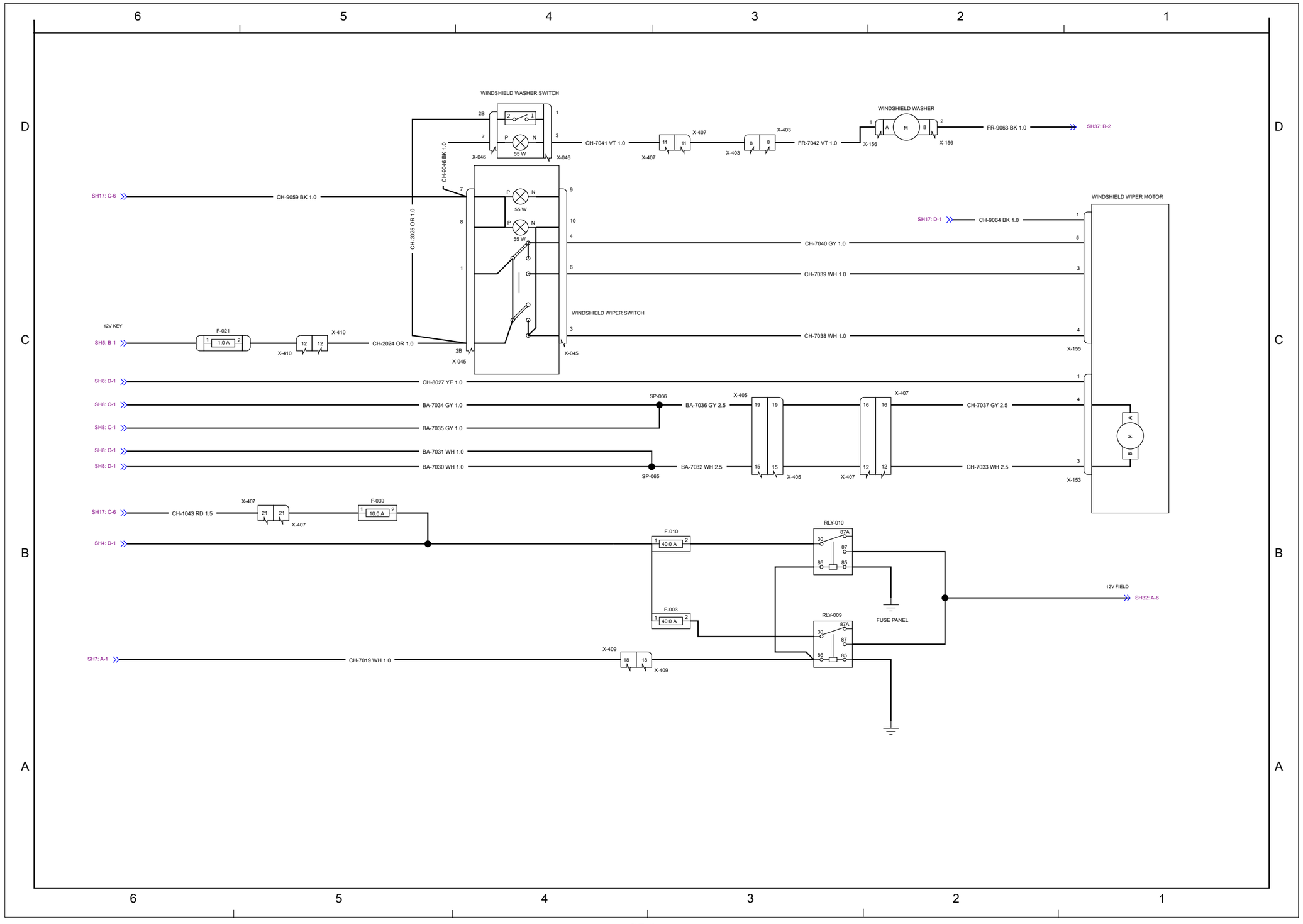
Component Type	Solenoid
Wiring frames	**SHEET 30**
Connectors	**X-263 (Receptacle)**

Y-055 - SEC HOOD SLEW LEFT (Solenoid)

Component Type	Solenoid
Wiring frames	**SHEET 30**
Connectors	**X-264 (Receptacle)**

Wiring harnesses - Electrical schematic sheet 10 SH010 - TRANSMISSION MODULE - MAESTRO

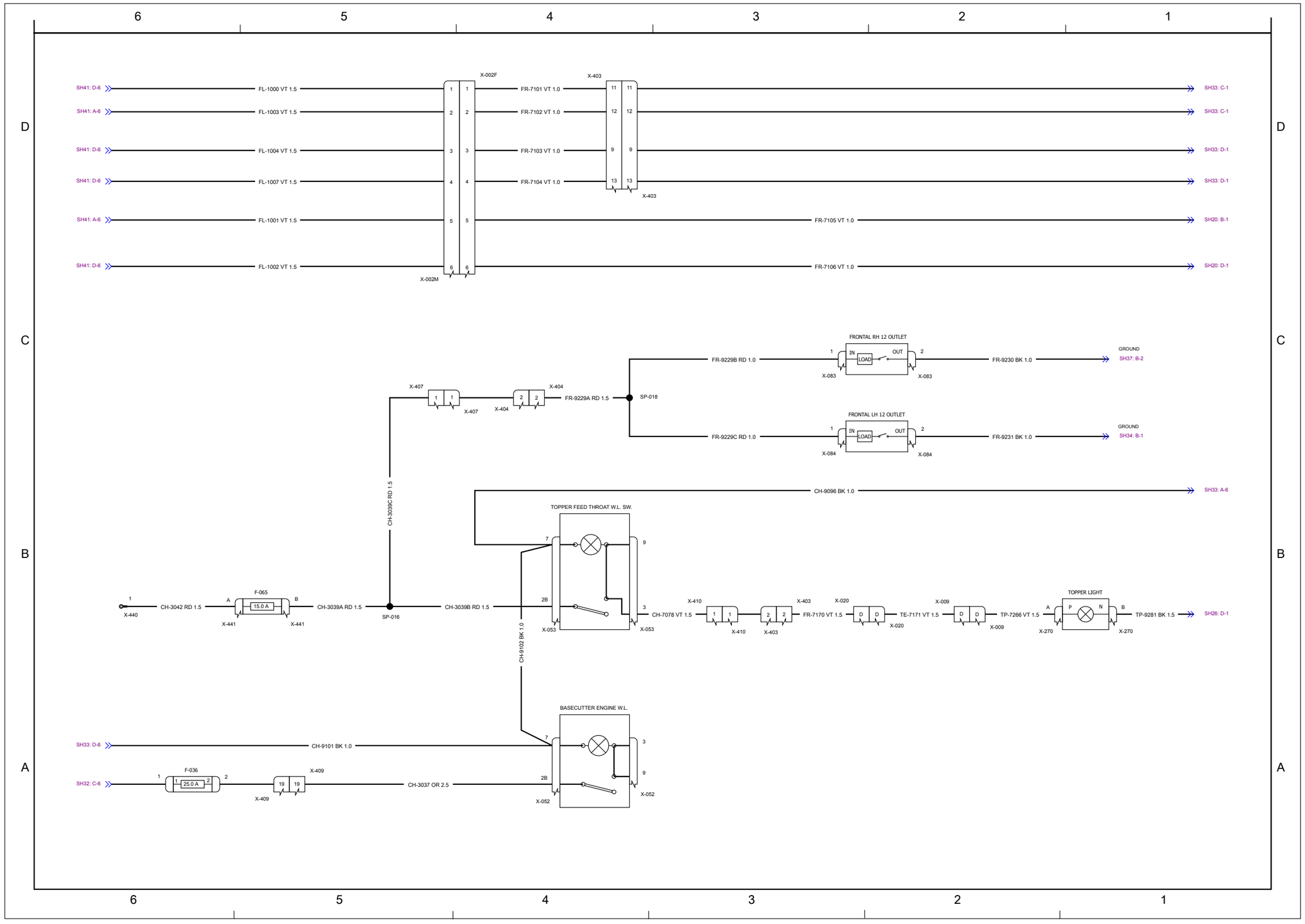
Type	Component	Connector / Link	Description
ECU	**A-006**	**X-018 X-017**	TRACTION MODULE MEASTRO II
ECU	**A-033**	**X-030 X-029**	CIGAR LIGHTER
Lamp	**E-067**		Lamp
Switch	**S-004**	**X-025**	emergency stop INSIDE RHC
Connector	X-006	**X-006**	6 BANK INTERFACE
Connector	X-007	**X-007**	PUMPS HARNESS CON. INTERFACE
Connector	X-013	**X-013**	TRACTION CONNECTOR
Connector	X-017	**X-017**	TRACTION MODULE MAESTRO II A
Connector	X-018	**X-018**	TRACTION MODULE MAESTRO II B
Connector	X-042A	**X-042A**	CRUISE CONTROL
Connector	X-105	**X-105**	JOYSTICK
Connector	X-211	**X-211**	RIGHT SIDE TRACTION PUMP REW
Connector	X-214	**X-214**	STEER VALVE LHS
Connector	X-215	**X-215**	STEER VALVE RHS


WINDSHIELD WASHER SWITCH
WINDSHIELD WASHER
WINDSHIELD WIPER MOTOR
WINDSHIELD WIPER SWITCH
12V KEY
12V FIELD
FUSE PANEL
SH17: C-6
CH-9059 BK 1.0
CH-9046 BK 1.0
CH-2025 OR 1.0
CH-7041 VT 1.0
FR-7042 VT 1.0
FR-9063 BK 1.0
SH37: B-2
SH17: D-1
CH-9064 BK 1.0
CH-7040 GY 1.0
CH-7039 WH 1.0
CH-7038 WH 1.0
SH5: B-1
CH-2024 OR 1.0
SH8: D-1
CH-8027 YE 1.0
SH8: C-1
BA-7034 GY 1.0
BA-7035 GY 1.0
SH8: C-1
BA-7031 WH 1.0
SH8: D-1
BA-7030 WH 1.0
BA-7036 GY 2.5
BA-7032 WH 2.5
CH-7037 GY 2.5
CH-7033 WH 2.5
SH17: C-6
CH-1043 RD 1.5
SH4: D-1
SH7: A-1
CH-7019 WH 1.0
F-021
F-039
F-010
F-003
RLY-010
RLY-009
SH32: A-6
SP-065
SP-066
X-046
X-045
X-407
X-403
X-156
X-410
X-405
X-409
X-155
X-153

SHT_18 1

Wiring harnesses - Electrical schematic sheet 27 SH027 - CIGAR LIGHTER AND SEAT PUMP MOTOR

Type	Component	Connector / Link	Description
ECU	**A-033**	**X-030 X-029**	CIGAR LIGHTER
Fuse	**F-013**		B-post cigar lighter fuse
Fuse	**F-014**		B-post power outlet fuse
Fuse	**F-023**	SP-999-1S58-4 **X-410-22 X-407-17 X-407-20**	
Power outlet	**J-004**	**X-004**	B-POST POWER OUTLET
Motor	**M-009**		SEAT PUMP MOTOR
Connector	X-004	**X-004**	12V PLUG
Connector	X-010	**X-010**	LHS HARNESS
Connector	X-029	**X-029**	CIGAR LIGHTER
Connector	X-030	**X-030**	CIGAR LIGHTER
Connector	X-086	**X-086**	ENGINE COMPARTMENT HARNESS
Connector	X-158	**X-158**	SEAT PUMP MOTOR
Connector	X-281B	**X-281B**	GND FUSE BOX
Connector	X-282B	**X-282B**	GND ROOF
Connector	X-405	**X-405**	PRINT CIRCUIT BOARD
Connector	X-406	**X-406**	PRINT CIRCUIT BOARD
Connector	X-407	**X-407**	PCB
Connector	X-407-17	**X-407-17**	
Connector	X-407-20	**X-407-20**	
Connector	X-410	**X-410**	PCB
Connector	X-410-22	**X-410-22**	

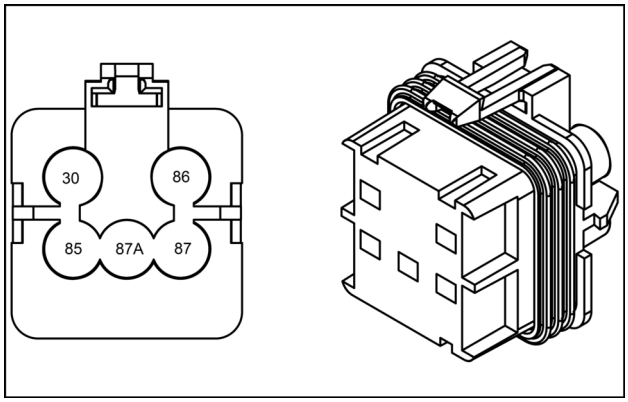

6
5
4
3
2
1
D
C
B
A
SH41: D-6
FL-1000 VT 1.5
SH41: A-6
FL-1003 VT 1.5
SH41: D-6
FL-1004 VT 1.5
SH41: D-6
FL-1007 VT 1.5
SH41: A-6
FL-1001 VT 1.5
SH41: D-6
FL-1002 VT 1.5
X-002F
X-002M
FR-7101 VT 1.0
FR-7102 VT 1.0
FR-7103 VT 1.0
FR-7104 VT 1.0
FR-7105 VT 1.0
FR-7106 VT 1.0
X-403
SH33: C-1
SH33: C-1
SH33: D-1
SH33: D-1
SH20: B-1
SH20: D-1
FRONTAL RH 12 OUTLET
FR-9229B RD 1.0
FR-9230 BK 1.0
GROUND
SH37: B-2
X-083
FRONTAL LH 12 OUTLET
FR-9229C RD 1.0
FR-9231 BK 1.0
GROUND
SH34: B-1
X-084
X-407
X-404
FR-9229A RD 1.5
SP-018
CH-3039C RD 1.5
CH-9096 BK 1.0
SH33: A-6
TOPPER FEED THROAT W.L. SW.
F-065
15.0 A
CH-3042 RD 1.5
CH-3039A RD 1.5
CH-3039B RD 1.5
SP-016
X-440
X-441
X-053
CH-7078 VT 1.5
FR-7170 VT 1.5
TE-7171 VT 1.5
TP-7266 VT 1.5
TP-9281 BK 1.5
SH26: D-1
TOPPER LIGHT
X-410
X-020
X-009
X-270
CH-9102 BK 1.0
BASECUTTER ENGINE W.L.
SH33: D-6
CH-9101 BK 1.0
SH32: C-6
F-036
25.0 A
CH-3037 OR 2.5
X-409
X-052

SHT_35 1

Wiring harnesses - Electrical schematic sheet 44 SH044 - RHM CONNECTION

Type	Component	Connector / Link	Description
ECU	**A-065**	A-065	RHM connector KN1-A
ECU	**A-066**	A-066	RHM connector JP2
ECU	**A-070**	A-070	
ECU	**A-081**	A-081	
Ground	**GND-124**	GND-124	
Switch	**S-100**	S-100	8
Switch	**S-101**	S-101	10
Switch	**S-102**	1	14
Switch	**S-103**	1	17
Switch	**S-104**	1	16
Switch	**S-116**	1	19
Switch	**S-117**	1	20
Switch	**S-118**	1	24
Switch	**S-119**	S-119	

X-003 - AC OFF RELAY [SH19: C-4] (87697770) (Receptacle)

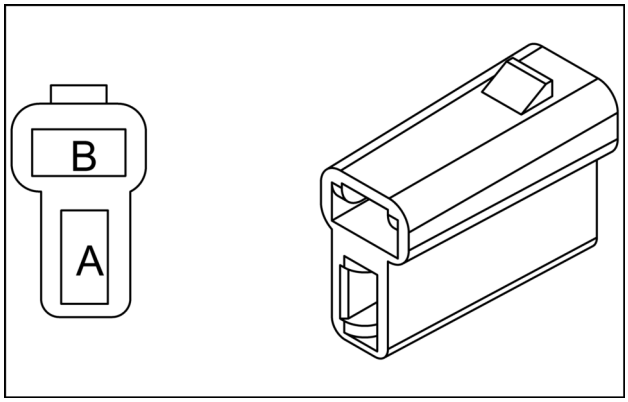


87697770 5

87697770

Pin	From	Wire	Description	Color-Size	Frame
30	SP-062-P-X	CH-2028A	CH-2028A	BR - 1.0	**SHEET 08**
85	**X-201 (Receptacle) pin 11** FCM-2	CH-1002	CH-1002	BL - 1.0	
86	**X-281B (Plug) pin 1** GND FUSE BOX	CH-9010	CH-9010	BK - 1.0	
87	**X-157 (Plug) pin 2** AIRCO UNIT M008	CH-8028	CH-8028	YE - 1.0	

X-004 - 12V PLUG [J-004] (87693325) (Receptacle)



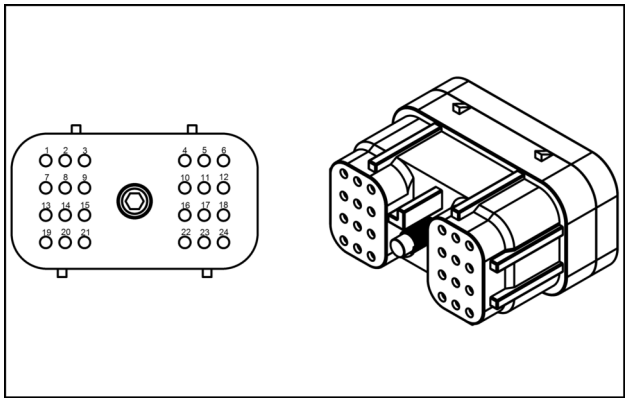
87693325 6

87693325

Pin	From	Wire	Description	Color-Size	Frame
A	**X-407 (Receptacle) pin 20** PCB	CH-1053	CH-1053	RD - 1.5	**SHEET 27**
B	**X-030 (Receptacle) pin 1** CIGAR LIGHTER	CH-9118	CH-9118	BK - 1.5	

Pin	From	Wire	Description	Color-Size	Frame
18	SP-027-P-X	CH-4010	CH-4010	YE - 1.0	**SHEET 13**
19	SP-033-P-X	CH-4011	CH-4011	GN - 1.0	

X-026 - [A-078] (84146326) (Receptacle)

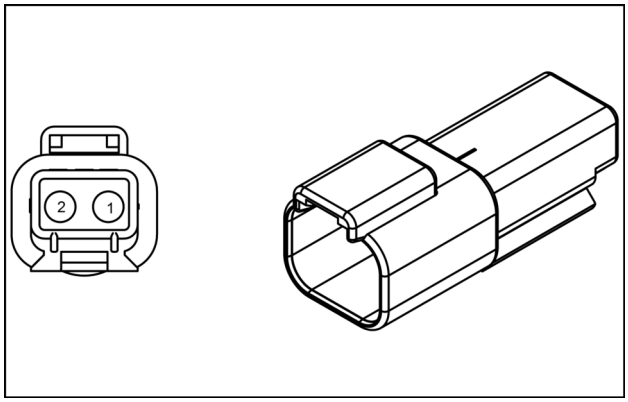


84146326 7

84146326

Pin	From	Wire	Description	Color-Size	Frame
2	**X-400 (Plug) pin 2**	DM-6020	DM-6020	PK - 1.0	**SHEET 14**
5	SP-049-P-X	DM-4036	DM-4036	YE - 1.0	
8	**X-400 (Plug) pin 3**	DM-6021	DM-6021	BL - 1.0	
11	SP-050-P-X	DM-4037	DM-4037	GN - 1.0	
14	**X-400 (Plug) pin 5**	DM-9236	DM-9236	BK - 1.0	

X-027 - (87696073) (Plug)



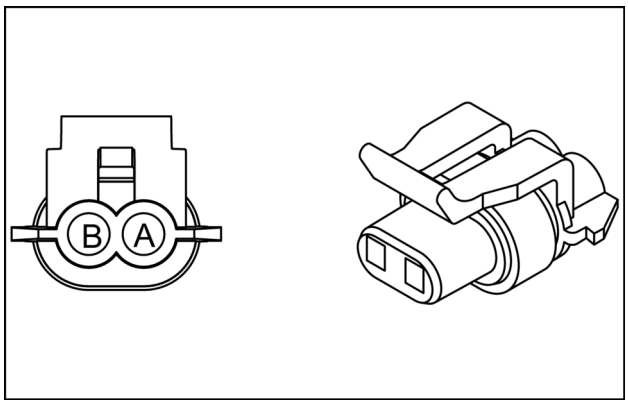
87696073 8

87696073

Pin	From	Wire	Description	Color-Size	Frame
1	**X-039 (Receptacle) pin 5**	YM-8034	YM-8034	BL - 1.0	**SHEET 40**
1	**X-027A (Receptacle) pin 1**	EY-8012	EY-8012	YE - 1.0	
2	**X-039 (Receptacle) pin 4**	YM-8012	YM-8012	YE - 1.0	
2	**X-027A (Receptacle) pin 2**	EY-8034	EY-8034	BL - 1.0	

Wire connectors - Component diagram 06

X-060 - SEAT SW [S-012] (87693821) (Receptacle)

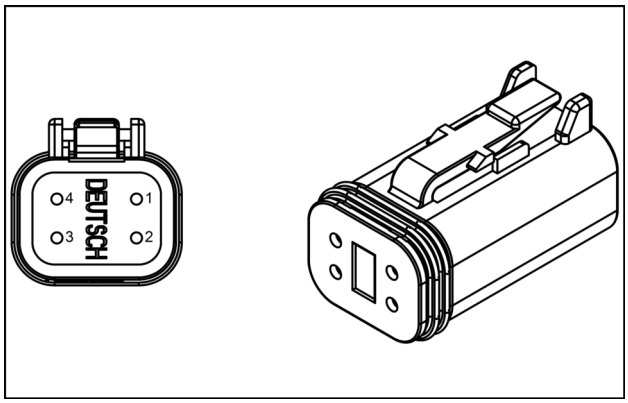


87693821 1

87693821

Pin	From	Wire	Description	Color-Size	Frame
A	**X-101 (Receptacle) pin 21** FCM1 J1	CH-2031	CH-2031	OR - 1.0	**SHEET 37**
B	**X-101 (Receptacle) pin 12** FCM1 J1	CH-8043	CH-8043	YE - 1.0	

X-061 - [SH48: B-4] (87695564) (Receptacle)



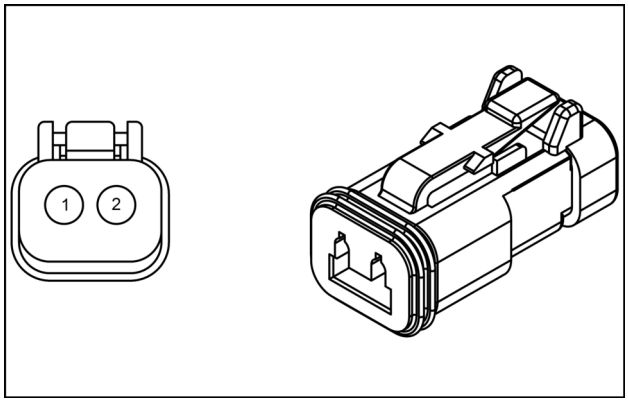
87695564 2

87695564

Pin	From	Wire	Description	Color-Size	Frame
1	SP-046-P-X	TE-1000A	TE-1000A	BK - 1.0	**SHEET 48**
1	**X-059 (Plug) pin 5**	500	500	BK - 1.0	
2	**X-390 (Receptacle) pin 7**	TE-5051	TE-5051	RD - 1.0	
2	**X-059 (Plug) pin 3**	506	506	RD - 1.0	
3	**X-390 (Receptacle) pin 6**	TE-4050	TE-4050	GN - 1.0	
3	**X-059 (Plug) pin 2**	507	507	GN - 1.0	

Pin	From	Wire	Description	Color-Size	Frame
3	**X-087 (Receptacle) pin 9** L.R. OUTER CABIN WL	CH-7260	CH-7260	VT - 1.0	**SHEET 32**
3	**X-011 (Plug) pin A** ROOF CONNECTOR INTERFACE	CH-7259	CH-7259	VT - 1.5	
4	**X-011 (Plug) pin B** ROOF CONNECTOR INTERFACE	CH-7261	CH-7261	VT - 1.5	
4	**X-087 (Receptacle) pin 10** L.R. OUTER CABIN WL	CH-7262	CH-7262	VT - 1.0	
7	**X-087 (Receptacle) pin 8** L.R. OUTER CABIN WL	CH-9093	CH-9093	BK - 1.0	
7	**X-057 (Receptacle) pin 7** W.L. OUTER CAB	CH-9222	CH-9222	BK - 1.0	
8	**X-051 (Receptacle) pin 7** W.L.REAR	CH-9094	CH-9094	BK - 1.0	
8	**X-087 (Receptacle) pin 7** L.R. OUTER CABIN WL	CH-9093	CH-9093	BK - 1.0	
9	**X-087 (Receptacle) pin 3** L.R. OUTER CABIN WL	CH-7260	CH-7260	VT - 1.0	
10	**X-087 (Receptacle) pin 4** L.R. OUTER CABIN WL	CH-7262	CH-7262	VT - 1.0	
2B	**X-087 (Receptacle) pin 5B** L.R. OUTER CABIN WL	CH-7098	CH-7098	VT - 1.5	
2B	**X-057 (Receptacle) pin 3** W.L. OUTER CAB	CH-7097	CH-7097	VT - 1.5	
5B	**X-087 (Receptacle) pin 2B** L.R. OUTER CABIN WL	CH-7098	CH-7098	VT - 1.5	

X-088 - OPEN/CLOSE CROP DIVIDER [SH28: C-1] (47414530) (Receptacle)



47414530 10

47414530

Pin	From	Wire	Description	Color-Size	Frame
1	**X-427 (Plug) pin 1** EARTH	BA-3001	BA-3001	BK - 1.0	**SHEET 21**
2	SP-101-P-X	BA-7204B	BA-7204B	WH - 1.0	**SHEET 28**

Wire connectors - Component diagram 14

X-140 - LEFT ROOF INDICATOR LIGHT [E-020] (Plug)

Pin	From	Wire	Description	Color-Size	Frame
1	**X-011 (Receptacle) pin F** ROOF CONNECTOR INTERFACE	RF-7113	RF-7113	VT - 1.0	**SHEET 20**

X-141 - RIGHT ROOF INDICATOR LIGHT [E-021] (Plug)

Pin	From	Wire	Description	Color-Size	Frame
1	**X-011 (Receptacle) pin G** ROOF CONNECTOR INTERFACE	RF-7115	RF-7115	VT - 1.0	**SHEET 20**

X-142 - LEFT ROOF INDICATOR LIGHT GND [E-020] (Plug)

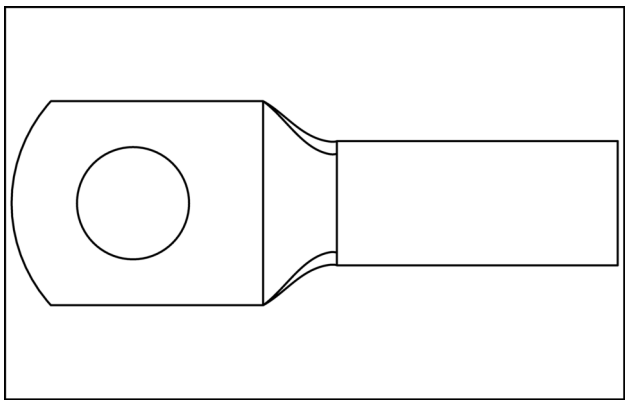
Pin	From	Wire	Description	Color-Size	Frame
1	SP-097-P-X	RF-9106	RF-9106	BK - 1.0	**SHEET 20**

X-143 - RIGHT ROOF INDICATOR LIGHT GND [E-021] (Plug)

Pin	From	Wire	Description	Color-Size	Frame
1	SP-097-P-X	RF-9107	RF-9107	BK - 1.0	**SHEET 20**

Wire connectors - Component diagram 20

X-200 - BDS (84401313) (Plug)

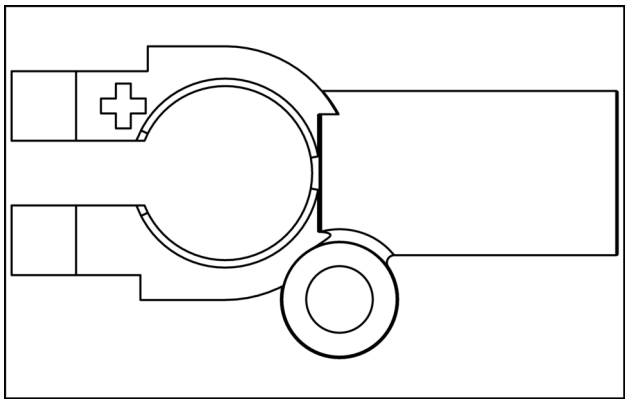


84401313 1

84401313

Pin	From	Wire	Description	Color-Size	Frame
1	**X-200A (Plug) pin 1** BATT +	1000	1000	RD - 70.0	**SHEET 04**

X-200A - BATT + (47359232) (Plug)

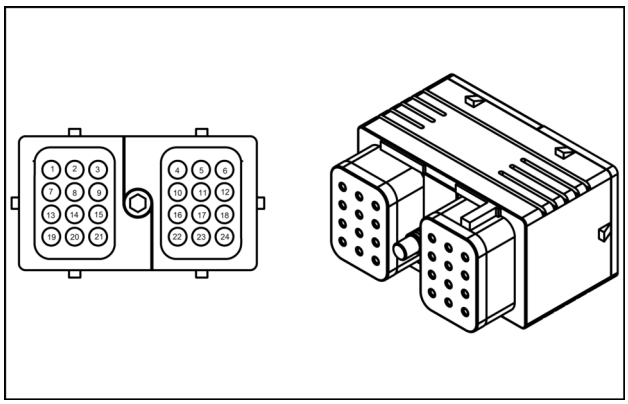


47359232 2

47359232

Pin	From	Wire	Description	Color-Size	Frame
1	**X-200 (Plug) pin 1** BDS	1000	1000	RD - 70.0	**SHEET 04**

X-201 - FCM-2 [A-084] (84584893) (Receptacle)

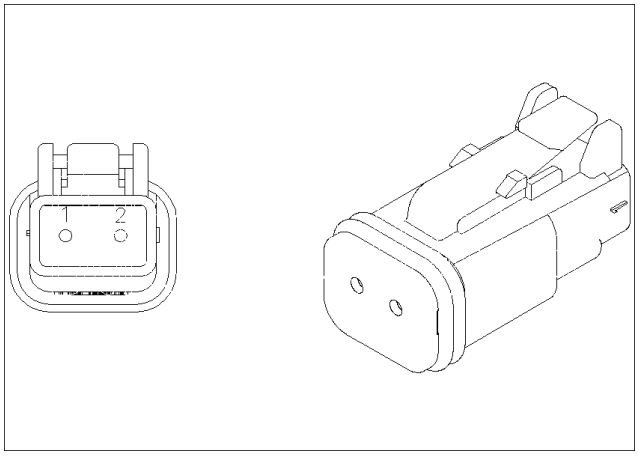


84584893 3

84584893

Pin	From	Wire	Description	Color-Size	Frame
1	SP-009-P-X	CH-1019	CH-1019	RD - 1.0	**SHEET 06**
3	**X-409 (Receptacle) pin 10**	CH-8054	CH-8054	YE - 1.0	**SHEET 25**

X-237 - OPEN-CLOSE CROPDIVIDER (MR) TRAI [SH21: A-1] (87695900) (Receptacle)

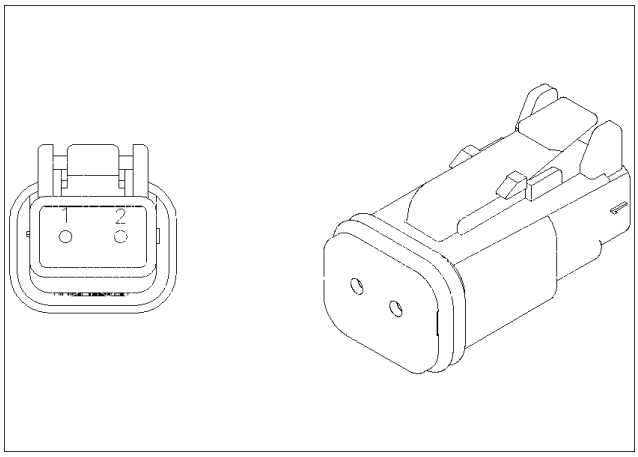


87695900 8

87695900

Pin	From	Wire	Description	Color-Size	Frame
1	**X-427 (Plug) pin 1** EARTH	BA-9160	BA-9160	BK - 1.0	**SHEET 21**
2	**X-102 (Receptacle) pin 17** SCM1 CONNECTOR 2	BA-7144	BA-7144	WH - 1.0	**SHEET 22**

X-238 - knock down roller up [SH24: A-1] (87695900) (Receptacle)



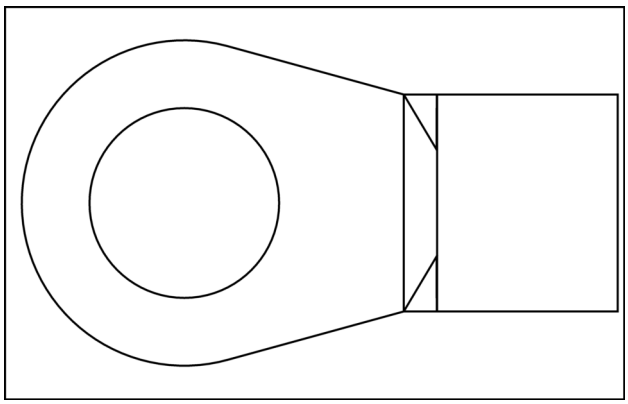
87695900 9

87695900

Pin	From	Wire	Description	Color-Size	Frame
1	**X-426 (Plug) pin 1** GROUND	AX-9161	AX	BK - 1.0	**SHEET 09**
2	**X-302 (Receptacle) pin 1** FCM3 J2	AX-7145	AX	WH - 1.0	**SHEET 24**

Wire connectors - Component diagram 28

X-281 - GROUND [SH7: C-5] (84589187) (Plug)



84589187 1

84589187

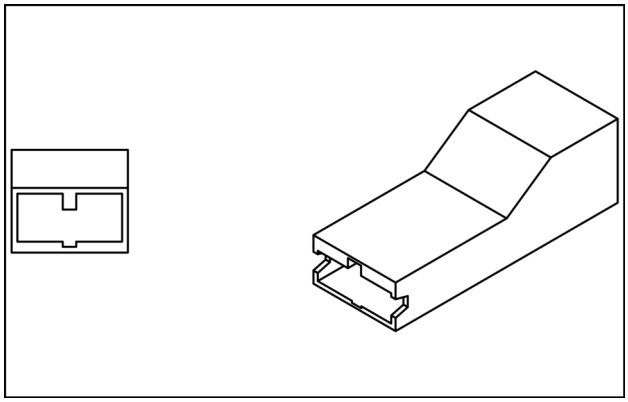
Pin	From	Wire	Description	Color-Size	Frame
1	**X-202 (Receptacle) pin 12** SCM2 CONNECTOR 2	BA-9017	BA-9017	BK - 1.0	**SHEET 07**
1	**X-203 (Receptacle) pin 9** SCM2 CONNECTOR 3	BA-9042	BA-9042	BK - 1.0	
1	**X-102 (Receptacle) pin 11** SCM1 CONNECTOR 2	BA-9037	BA-9037	BK - 1.0	
1	**X-202 (Receptacle) pin 16** SCM2 CONNECTOR 2	BA-9018	BA-9018	BK - 1.0	
1	**X-202 (Receptacle) pin 18** SCM2 CONNECTOR 2	BA-9019	BA-9019	BK - 1.0	
1	**X-203 (Receptacle) pin 12** SCM2 CONNECTOR 3	BA-9020	BA-9020	BK - 1.0	
1	**X-202 (Receptacle) pin 11** SCM2 CONNECTOR 2	BA-9041	BA-9041	BK - 1.0	
1	**X-282 (Plug) pin 1**	CH-9036A	CH-9036A	BK - 4.0	
1	**X-203 (Receptacle) pin 16** SCM2 CONNECTOR 3	BA-9040	BA-9040	BK - 1.0	
1	**X-025 (Receptacle) pin 12** R.H.C.	CH-9055	CH-9055	BK - 1.0	
1	**X-203 (Receptacle) pin 10** SCM2 CONNECTOR 3	BA-9043	BA-9043	BK - 1.0	
1	**X-102 (Receptacle) pin 31** SCM1 CONNECTOR 2	BA-9013	BA-9013	BK - 1.0	
1	**X-102 (Receptacle) pin 32** SCM1 CONNECTOR 2	BA-9014	BA-9014	BK - 1.0	
1	**X-102 (Receptacle) pin 12** SCM1 CONNECTOR 2	BA-9012	BA-9012	BK - 1.0	

X-281A - GND FUSE BOX [SH6: C-1] (Plug)

Pin	From	Wire	Description	Color-Size	Frame
1	**X-158 (Plug) pin B** SEAT PUMP MOTOR	CH-9116	CH-9116	BK - 1.0	**SHEET 13**
1	**X-001 (Plug) pin A** DIAGNOSTIC CONNECTOR	CH-9057	CH-9057	BK - 1.0	
1	**X-025 (Receptacle) pin 12** R.H.C.	CH-9055	CH-9055	BK - 1.0	
1	**X-301 (Receptacle) pin 8** FCM3 J1	CH-9021	CH-9021	BK - 1.0	
1	**X-017 (Receptacle) pin 16** TRACTION MODULE MAESTRO II A	CH-9026	CH-9026	BK - 1.0	
1	**X-201 (Receptacle) pin 8** FCM-2	CH-9016	CH-9016	BK - 1.0	
1	**X-017 (Receptacle) pin 17** TRACTION MODULE MAESTRO II A	CH-9027	CH-9027	BK - 1.0	
1	**X-101 (Receptacle) pin 8** FCM1 J1	CH-9011	CH-9011	BK - 1.0	

Pin	From	Wire	Description	Color-Size	Frame
7	**X-157 (Plug) pin 6** AIRCO UNIT M008	CH-7055	CH-7055	WH - 2.5	**SHEET 19**
8	**X-028 (Plug) pin 4** AIRCO MODULE	CH-7050	CH-7050	WH - 1.0	
9	**X-028 (Plug) pin 6** AIRCO MODULE	CH-7054	CH-7054	WH - 1.0	
10	**X-201 (Receptacle) pin 3** FCM-2	CH-8054	CH-8054	YE - 1.0	**SHEET 25**
11	**X-157 (Plug) pin 12** AIRCO UNIT M008	CH-7057	CH-7057	WH - 2.5	**SHEET 19**
12	**X-157 (Plug) pin 14** AIRCO UNIT M008	CH-7058	CH-7058	WH - 2.5	
13	**X-028 (Plug) pin 5** AIRCO MODULE	CH-7052	CH-7052	WH - 1.0	
14	**X-054 (Receptacle) pin 1** ROAD LIGHT	CH-7083	CH-7083	VT - 1.5	**SHEET 33**
15	SP-096-P-X	CH-7117	CH-7117	WH - 2.5	**SHEET 20**
16	**X-055 (Receptacle) pin 3** HIGH / LOW BEAM	CH-7091	CH-7091	VT - 1.5	**SHEET 33**
17	**X-201 (Receptacle) pin 18** FCM-2	CH-7116	CH-7116	WH - 1.0	**SHEET 20**
18	**X-101 (Receptacle) pin 24** FCM1 J1	CH-7019	CH-7019	WH - 1.0	**SHEET 18**
19	**X-052 (Receptacle) pin 2B** WL BASE CUTTER / ENGINE BOX	CH-3037	CH-3037	OR - 2.5	**SHEET 35**
20	SP-074-P-X	CH-3034	CH-3034	OR - 2.5	**SHEET 32**
21	**X-057 (Receptacle) pin 2B** W.L. OUTER CAB	CH-3041	CH-3041	OR - 1.5	
22	**X-056 (Receptacle) pin 2B** W.L. MID CAB	CH-3040	CH-3040	OR - 1.5	

X-703 - LH TURN LIGHT [L-043] (87679490) (Receptacle)

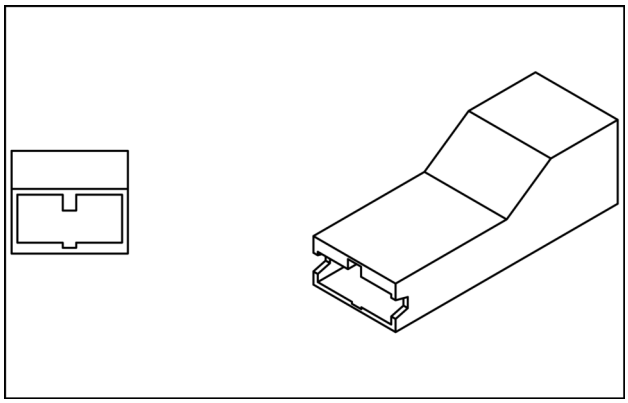


87679490 3

87679490

Pin	From	Wire	Description	Color-Size	Frame
1	**X-700 (Receptacle) pin 3** LH HARNESS	RL-9003	RL-9003	WH - 1.0	**SHEET 38**

X-704 - POSITION LIGHT [L-043] (87679490) (Receptacle)

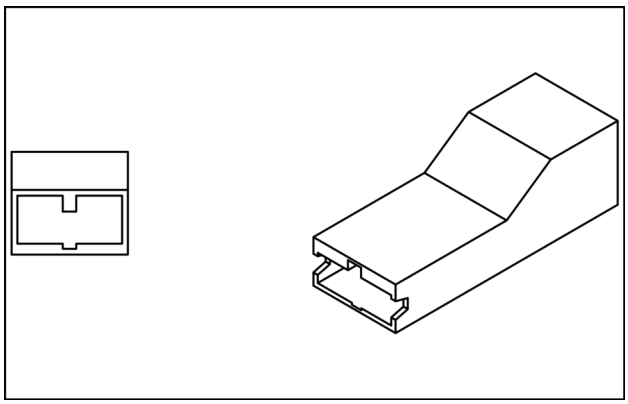


87679490 4

87679490

Pin	From	Wire	Description	Color-Size	Frame
1	RL-SP001-P-X	RL-9002	RL-9002	VT - 1.5	**SHEET 38**

X-705 - RH TURN LIGHT [L-043] (87679490) (Receptacle)



87679490 5

87679490

Pin	From	Wire	Description	Color-Size	Frame
1	**X-700 (Receptacle) pin 2** LH HARNESS	RL-9004	RL-9004	WH - 1.0	**SHEET 38**

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3024 (DTC 13C4) - ECU internal failure - Ambient pressure sensor voltage is higher than expected

Control Module: ECU

Context:
The Electronic Control Unit A-095 monitors ambient pressure by the ambient pressure sensor which is internal to the A-095. If the A-095 detects a voltage greater than **4.88 V** for a period greater than **800 ms**, this fault will occur. If this fault occurs, the A-095 will be frozen at the last valid ambient pressure value for a preliminary failure and a replacement ambient pressure of **0.8 bar** (**11.6 psi**) if the failure is validated. As this fault can occur from abnormal altitude, verify that the machine is not being operating in extreme altitude conditions before diagnosing this fault.

Solution:

1. Check the ECU A-095 for the appropriate software and re-flash, if necessary.
   A. If the fault has been resolved, return the machine to service.
   B. If the fault has not been resolved, escalate an ASIST concern.

A. If there is continuity to chassis ground, leave connector **X-825** disconnected and continue with Step **5**.

B. If there is no continuity, there is a short to ground condition in the engine harness between the valve cover connector **X-825** pin 4 (WH) and the engine plug connector **X-917** pin 49 (WH). Locate and repair the grounded conductor.

5. Determine location of the short to ground condition.

   Remove the injector (valve) cover and disconnect the injector harness from Cylinder 1 injector at Y-061.

   Use a multimeter to check for continuity, on the injector:

From	To	Value
Y-061 pin 1	chassis ground	There should be no continuity

A. If there is continuity, Cylinder 1 injector Y-061 solenoid coil has failed, replace the injector.

B. If there is no continuity, there is a short to ground condition in Cylinder 1 injector circuit, between connector Y-061, pin 1 and connector **X-825** pin 4. Locate and repair the grounded conductor.

6. Disconnect the engine cylinder harness from the injector (valve) cover at connector **X-825**.

   Use a multimeter to measure the resistance on the injector cover side of the valve cover:

From	To	Value
X-825 pin 4	**X-825** pin 3	There should be greater than **0.1 Ω**

A. If the resistance is greater than **0.1 Ω**, there is a short circuit condition in the engine injector harness between the valve cover connector **X-825** and the engine plug connector **X-917**. Locate and repair the short circuit.

B. If the resistance is less than **0.1 Ω**, continue with step **7**.

7. Remove the injector (valve) cover and disconnect the injector harness from Cylinder 1 injector at Y-061.

   Use a multimeter to check for continuity, on the injector:

From	To	Value
Y-061 pin 1	Y-061 pin 2	There should be greater than **0.1 Ω**

A. If there is greater than **0.1 Ω**, there is a short circuit condition in the injector harness, between connector **X-825** and Y-061 pin 1 and pin 2. Locate and repair the shorted conductors.

B. If the resistance is less than **0.1 Ω**, the Cylinder 1 injector Y-061 solenoid coil has failed. Replace the injector.

8. Check the ECU A-095 supply voltage.

   Disconnect the vehicle interface harness (VE) from the ECU A-095 at the vehicle plug connector **X-911**.

   Turn the ignition switch ON.

   Use a multimeter to check for voltage on the vehicle interface (VE) harness side of the vehicle plug:

From	To	Value
X-911 pin 1, wire 6408B (GN)	chassis ground	There should be **12.0 V**
X-911 pin 25, wire 6408C (GN)	chassis ground	There should be **12.0 V**
X-911 pin 26, wire 6408D (GN)	chassis ground	There should be **12.0 V**
X-911 pin 49, wire 6408E (GN)	chassis ground	There should be **12.0 V**
X-911 pin 73, wire 6408F (GN)	chassis ground	There should be **12.0 V**

A. If the **12.0 V** is present for all five checks, leave the vehicle plug connector **X-911** disconnected and continue with Step **9**.

B. If the **12.0 V** is not present for one or more of the checks, use the appropriate vehicle electrical schematics to locate and repair the failure.

9. Check the ECU A-095 ground circuits.

3079 (DTC 6426) - Short circuit error of injector in cylinder 3

Control Module: ECU

Context:
Hardware errors in the injectors and their respective Engine Control Unit (ECU) A-095 power stages are investigated within the ECU A-095. The ECU A-095 diagnostic procedure uses pattern detection to identify specific errors. When an expected combination of errors is detected, the associated fault occurs.

Cause:
During cylinder 3 injector Y-063 evaluation, the pattern for short circuit was detected.

Possible failure modes:

1. Faulty cylinder 3 injector Y-063 solenoid windings, shorted or grounded
2. Faulty electrical wiring, short high side to either low side or ground (damaged wiring harness)
3. Faulty ECU A-095, software

Solution:

1. Verify this fault code is still present and in an active state.

   Use the Easy Engine software provided on the Electronic Service Tool (EST) to check the fault status and to perform the cylinder cut-out test.

   A. If the fault is still present and active, continue with Step **2**.

   B. If the fault is no longer present or is in an inactive state, the fault may be intermittent and not currently active. Continue with Step **10**.

2. Check the integrity of the cylinder 3 injector Y-063 control circuit.

   Disconnect the engine harness from the ECU A-095 at the engine plug connector **X-917**.

   Use a multimeter to measure the resistance on the EN harness side:

From	To	Value
X-917 pin 50 (WH)	**X-917** pin 74 (WH)	There should be greater than **0.1 Ω**

   A. If there is greater than **0.1 Ω**, leave the engine plug connector **X-917** disconnected and continue with Step **3**.

   B. If there is less than **0.1 Ω**, continue with Step **6**.

   NOTE: *The measured amount of injector coil resistance is a very small value, typically between **0.2 – 0.5 Ω**.*

3. Check the cylinder 3 injector Y-063 high side control circuit for a short to ground condition.

   Use a multimeter to check for continuity on the EN harness side:

From	To	Value
X-917 pin 50 (WH)	chassis ground	There should be no continuity

   A. If there is continuity, continue with Step **4**.

   B. If there is no continuity, continue with Step **8**.

4. Determine location of the short to ground condition.

   Disconnect the engine cylinder harness from the injector (valve) cover at connector **X-825**.

   Use a multimeter to check for continuity, on the injector (valve) cover side:

From	To	Value
X-825 pin 4	chassis ground	There should be no continuity

3107 (DTC 6655) - Fuel metering unit is shorted to battery voltage at the low side

Control Module: ECU

Context:
For more information on the fuel metering unit Y-011 refer to the appropriate manual. The power stage of the fuel metering unit Y-011 at low side is monitored by the Electronic Control Unit (ECU) A-095 for electric failures. If the A-095 detects a short to a high source on the power stage of the Y-011 at low side, this fault will occur.

Cause:
The ECU A-095 has detected a short to high source in the Y-011 low side circuit.

Possible failure modes:

1. Y-011 internal failure
2. Short to high source condition in the Y-011 to ECU A-095 engine (EN) harness
3. Faulty A-095, software

Solution:

1. Verify that the fault code is active.

   Use the Electronic Service Tool (EST) to verify this fault.

   A. If the fault is present and active, continue to Step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue to Step **5**.

2. Check the Y-011 for an internal short.

   Disconnect the Y-011 connector **X-833**.

   Use a multimeter to perform the following resistance check:

From	To	Value
X-833 pin 1	**X-833** pin 2	The value should be between **2.8 – 3.2 Ω** (**2.8 – 3.2 Ω**).

   A. If the value is in the specified range, leave the connector **X-833** disconnected and continue to Step **3**.

   B. If the value is not in the specified range, the Y-011 has failed internally. Replace the Y-011 then perform the Replacement of the Rail Pressure Metering Unit - Reset ECU Data.

3. Check the voltage on the Y-011 circuit, low side.

   Disconnect A-095 connector **X-917**.

   The ignition switch must be in the ON position.

   Use a multimeter to perform the following test:

To	From	Value
X-917 pin 83	Chassis ground	There should be no voltage.

   A. If there is voltage, there is a short to high a voltage source in the Y-011 circuit, low side. Refer to the appropriate service manual to locate and repair the shorted conductor.

   B. If there is no voltage, go to Step **4**.

4. Check for continuity between all pins in connector **X-917**.

3158 - Engine anti-tamper security check failed

Control Module: ECU

Cause:
This fault code can appear after downloading software to the Engine Control Unit (ECU) A-095 and completing the data set registration, if the engine was not allowed to run for at least five minutes before turning the ignition switch OFF.
The message to 'register the data set, if it has been changed', will occasionally appear on the Electronic Service Tool (EST) after downloading software. If the procedure to register the data set has been completed, the machine needs to run for five minutes to complete the registration process between machine modules.

Possible failure modes:

1. A-095 does not have the valid data set installed.
2. The new engine data set has not been registered on the machine.
3. The engine was not allowed to run for at least five minutes after completing a data set registration before turning the ignition switch OFF.

Solution:

1. Download the correct engine data set using the EST.
   After the download has completed, register the engine data set for use with the EST configuration screen “Engine data registration”.

   If this fault code appears or the message to register the data set appears on the EST and the registration procedure has already been completed, it should not need to be completed again. Start the engine and allow to idle for five minutes.

   Once the engine has idled for five minutes, the fault can go 'inactive' or 'non present'. Once this occurs, the fault code can be cleared and should not appear again.
   If the fault recurs again, run the engine for an additional five minutes to make sure the fault does not occur again.

3175 (DTC 4933) - Fan speed signal could not be measured for a period

Control Module: ECU

Context:
The Electronic Control Unit (ECU) A-095 monitors fan speed by the fan speed sensor Z-008. Speed is measured using time interval between pulses. If the A-095 determines that the times interval is too long or has stopped completely, this fault will occur.

Cause:
The A-095 has determined that the fan speed signal could not be measured for an extended period of time.

Possible failure modes:

1. Faulty engine cooling fan assembly
2. Faulty Z-008, wiring
3. Faulty Z-008, internal failure
4. Faulty A-095, software

Solution:

1. Verify fault is present and active.

   Use the Electronic Service Tool (EST) to check the status of this fault.

   A. If the fault is present and active, continue with Step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue with Step **5**.

2. Check the Z-008 signal circuit wiring.

   Disconnect connector **X-811**.

   Disconnect connector **X-911**.

   The ignition switch must be in the OFF position for continuity and ON position for voltage.

   Use a multimeter to perform the following wiring checks:

From	To	Value
X-911 pin 64, wire 6330B (BR)	**X-811 pin 1**, wire 6300 (BR)	There should be continuity.
X-911 pin 64, wire 6330B (BR)	**X-911 pin 65**, wire 6330 (BR)	There should be no continuity.
X-911 pin 64, wire 6330B (BR)	**X-911 pin 67**, wire 6331A (BR)	There should be no continuity.
X-911 pin 64, wire 6330B (BR)	All pins in connector **X-911**	There should be no continuity.
X-911 pin 64, wire 6330B (BR)	Chassis ground	There should be no continuity.
X-911 pin 64, wire 6330B (BR)	Chassis ground (ignition switch ON for voltage)	There should be no voltage.

   A. If the specified values are not obtained, the is a fault in the Z-008 wiring. Locate and repair the faulty conductor.

   B. If the specified values are obtained, continue to Step **3**.

3. Inspect the cooling fan for proper operation.

   A. If the fan is not properly engaging or functioning correctly, repair the fan assembly as necessary.

   B. If the fan assembly is functioning properly, continue to Step **4**.

4. Replace the Z-008.

From	To	Value
X-911 pin 28, wire 057HD (BK)	chassis ground	There should be continuity.
X-911 pin 52, wire 057HC (BK)	chassis ground	There should be continuity.
X-911 pin 75, wire 057HE (BK)	chassis ground	There should be continuity.

A. If there is continuity on all five checks, check the ECU A-095 for the appropriate software and re-flash, if necessary.

B. If there is no continuity on one or more of the checks, use the appropriate vehicle electrical schematics to locate and repair the failure.

9. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals, or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while you monitor the display.

A. If you find damage or the display indicates other than normal display readings, then repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

B. If you do not find damage and the display indicates only normal readings, then erase the fault code and continue operation.

Wiring harnesses - Electrical schematic sheet 12 (55.100)
Wiring harnesses - Electrical schematic sheet 13 (55.100)
Wiring harnesses - Electrical schematic sheet 14 (55.100)

3210 (DTC 7116) - Injection bank 1 short circuit failure (all injectors of the same bank can be affected)

Control Module: ECU

Context:
Hardware errors in the injectors and their respective Engine Control Unit (ECU) A-095 power stages are investigated within the ECU A-095. The injector control scheme also groups the individual injector control circuits into banks. The ECU A-095 diagnostic procedure uses pattern detection to identify specific injector as well as bank errors. When an expected combination of errors is detected, the associated fault occurs. If a short circuit failure condition exists in bank 1, this fault will occur.

Cause:
The ECU A-095 has determined that a short circuit condition exists in injector control bank 1.

Possible failure modes:

1. Faulty bank 1 injector circuit wiring, shorted.
2. Faulty bank 1 injector solenoid windings, shorted.
3. Faulty ECU A-095, software.

Solution:

1. Check for bank 1 injector fault code.

   Use the Electronic Service Tool (EST) to check for the presence of **3063 (DTC 6226) – Short circuit error of injector in cylinder 1** or **3079 (DTC 6426) – Short circuit error of injector in cylinder 4**.

   A. If either **3063 (DTC 6226) – Short circuit error of injector in cylinder 1** or **3079 (DTC 6426) – Short circuit error of injector in cylinder 4** is present, resolve the relevant fault. Then determine if fault **3210 (DTC 7116) – Injection bank 1 short circuit failure (all injectors of the same bank can be affected)** is also resolved.

   B. If neither **3063 (DTC 6226) – Short circuit error of injector in cylinder 1** or **3079 (DTC 6426) – Short circuit error of injector in cylinder 4** is present, check the ECU A-095 for the appropriate software and re-flash, if necessary.

3362 (DTC E1FD) - ECU internal failure - Fuel calibration

Control Module: ECU

Context:
The Electronic Control Unit (ECU) A-095 monitors the conversion from fuel quantity to torque for consistency during A-095 initialization. If a calibration error is detected during this test, this fault will occur.

Solution:

1. Check the ECU A-095 for the appropriate software and re-flash, if necessary.
   A. If the fault has been resolved, return the machine to service.
   B. If the fault has not been resolved, escalate an ASIST concern.

From	To	Value
X-917 pin 58 (YE/GN)	Chassis ground	There should be no voltage.
X-917 pin 83 (YE/BK)	Chassis ground	There should be no voltage.

A. If there is voltage, there is a short to ignition power condition in the Y-011 wiring. Locate the repair the shorted conductor.

B. If there is no voltage, continue to Step **5**.

5. Replace the Y-011.

   Use the EST to verify the status of **3735 (DTC 8355) – Fuel metering unit has an over-temperature error**.

   A. If the fault has been resolved, return the machine to service.

   B. If the fault has not been resolved, check the ECU A-095 for the appropriate software and re-flash, if necessary.

6. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals, or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while you monitor the display.

   A. If you find damage or the display indicates other than normal display readings, then repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

   B. If you do not find damage and the display indicates only normal readings, then erase the fault code and continue operation.

Wiring harnesses - Electrical schematic sheet 13 (55.100)

A. If the specified values are not measured, there is a short circuit condition in the B-015 circuit. Locate and repair the shorted conductor.

B. If the specified values are measured, continue to Step **4**.

4. Replace the B-015.

   Use the EST to verify the status of this fault, **3810 (DTC 4125) – Rail pressure sensor value is intermittent**.

   A. If the fault has been resolved, return the machine to service.

   B. If the fault has not been resolved, check the ECU A-095 for the appropriate software and re-flash, if necessary.

5. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals, or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while you monitor the display.

   A. If you find damage or the display indicates other than normal display readings, then repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

   B. If you do not find damage and the display indicates only normal readings, then erase the fault code and continue operation.

Wiring harnesses - Electrical schematic sheet 13 (55.100)

3911 (DTC 6455) - Fuel metering unit is shorted to battery voltage at the high side

Control Module: ECU

Context:
The Electronic Control Unit (ECU) A-095 monitors the fuel metering unit Y-011 high side driver circuit for a short to battery power condition. If the A-095 detects a short to battery power, this fault will occur.

Cause:
The A-095 has detected a short to battery power in the Y-011 high side driver circuit.

Possible failure modes:

1. Faulty Y-011, internal failure
2. Faulty Y-011 wiring, short to battery power condition
3. Faulty A-095, software

Solution:

1. Verify fault is present and active.

   Use the Electronic Service Tool (EST) to check the status of this fault.

   A. If the fault is present and active, continue with Step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue with Step **5**.

2. Check the Y-011 for an internal short.

   Disconnect the Y-011 connector **X-833**.

   Use a multimeter to perform the following resistance check:

From	To	Value
X-833 pin 1	**X-833** pin 2	The value should be between **2.8 – 3.2 Ω** (**2.8 – 3.2 Ω**).

   A. If the value is in the specified range, leave the connector **X-833** disconnected and continue to Step **3**.

   B. If the value is not in the specified range, the Y-011 has failed internally. Replace the Y-011 then perform the Replacement of the Rail Pressure Metering Unit - Reset ECU Data. See the corresponding configure menu in the Electronic Service Tool (EST).

3. Check the Y-011 high side driver circuit for a short to battery power condition.

   Disconnect connector **X-917**.

   The ignition switch must be in the OFF position.

   Use a multimeter to perform the following continuity check:

From	To	Value
X-917 pin 58 (YE/GN)	All pins in connector **X-917**	There should be no continuity.

   A. If there is continuity, there is a short circuit condition in the Y-011 high side driver circuit. Locate and repair the shorted conductor.

   B. If there is no continuity, leave both connectors disconnected and continue to Step **4**.

4. Check the Y-011 high side driver circuit for a short to ignition power condition.

A1203 - Alternator is overloading

Solution:

1. Check the cables and connectors.
2. Replace the alternator.

A2115 - Engine shuts down

Solution:

1. Check the system for irregularities.

A5005 - SCM3 Loss of communication

Solution:

1. Check the CAN network resistance, the correct value should be **60 Ω**.

E0021 - Basecutter pressure

Control Module: SCM1

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Harvest functions
4. Basecutter pressure

Cause:

1. No power at sensor
2. Sensor not sending signal to the module.
3. Cable damaged
4. Grounding fault
5. Faulty sensor
6. Harness connector faulty

Solution:

1. Check that **5 V** is arriving at the position sensor: if not, check the harness.
2. Check the continuity of the sensor through the module, if it is not ok, check the harness.
3. Check continuity.
4. Check ground continuity.
5. Replace sensor.
6. Check that signal is passing through sensor harness connector.

E0065 - Cropdivider Left Up

Control Module: SCM1

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Harvesting basic functions
4. Basecutter up, left cropdivider up

Cause:

1. Harness connector with bad contact
2. Harness connector faulty
3. The lock that holds the terminal in the connector is broken
4. Cable damaged
5. Grounding fault
6. Coil burnt out

Solution:

1. Check if the connector is properly fitted.
2. Check if signal is passing through the harness connector.
3. Open the connector and check if the connector lock is not broken.
4. Check continuity.
5. Check ground continuity.
6. Replace the coil.

E0266 - Low water level in the expansion tank

Control Module: SCM2

Cause:

1. Lack of coolant
2. Sensor float is stuck
3. Harness connector with bad contact
4. Harness connector faulty
5. Cable damaged
6. Defect in sensor

Solution:

1. Fill with coolant as shown in the operators manual.
2. Check if there is something jamming the float and fix if necessary.
3. Check if the connector is properly fitted.
4. Check if signal is passing through the harness connector.
5. Check continuity.
6. Replace the sensor.

E0304 - Horn compressor relay

Control Module: SCM2

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Cab
4. Horn compressor relay

Cause:

1. Harness connector with bad contact
2. Harness connector faulty
3. Cable damaged
4. Grounding fault
5. Relay 11 burnt out

Solution:

1. Check if the connector is properly fitted.
2. Check if signal is passing through the harness connector.
3. Check continuity.
4. Check if the ground wire is correctly fixed or if there is poor contact at the ground point.
5. Replace relay.

E0321 - Basecutter/chopper harvesting direction

Control Module: SCM2

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Harvesting basic functions
4. Basecutter/chopper stop

Cause:

1. Harness connector with bad contact
2. Harness connector faulty
3. The lock that holds the terminal in the connector is broken
4. Cable damaged
5. Grounding fault
6. Coil burnt out

Solution:

1. Check if the connector is properly fitted.
2. Check if signal is passing through the harness connector.
3. Replace the connector.
4. Check continuity.
5. Check if the ground wire is correctly fixed or if there is poor contact at the ground point.
6. Replace the coil.

E0516 - SCM3 reference voltage 2 5 V

Control Module: SCM3

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. SCM3
4. SCM3 **5 V** ref2

Cause:

1. Internal defect in module

Solution:

1. Contact the manufacturer.

E0586 - Knock down roller down

Control Module: SCM3

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Harvesting basic functions
4. Knock down roller down

Cause:

1. Harness connector with bad contact
2. Harness connector faulty
3. Cable damaged
4. Grounding fault
5. The lock that holds the terminal in the connector is broken
6. Coil burnt out

Solution:

1. Check if the connector is properly fitted.
2. Check if signal is passing through the harness connector.
3. Check continuity.
4. Check if the ground wire is correctly fixed or if there is poor contact at the ground point.
5. Replace the terminal.
6. Replace the coil.

E1311 - Mometary Road / Field switch

Control Module: RHM

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Right hand module
4. Road/field mode Result: With the ignition key on, the reading must be low: when the switch is switched on, the reading must be high

Cause:

1. Wire damage.
2. Switch internal fault.

Solution:

1. Check the wires for continuity.
2. Replace the button.

E1330 - Elevator On/Off

Control Module: RHM

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Right hand module
4. SW E stick Result: With the ignition key on, the reading must be low: when the switch is switched on, the reading must be high

Cause:

1. Multifunctional handle defective.

Solution:

1. Open the multifunction handle and check if the connectors are attached correctly, If connectors are correct the handle must be replaced.

E1364 - Right hand sidetrim reverse On

Control Module: RHM

Context:

On the monitor, select:

1. Diagnostics
2. Diagnostics guide
3. Right hand module
4. Right hand sidetrim reverse Result: With the ignition key on, the reading must be low: when the switch is switched on, the reading must be high

Cause:

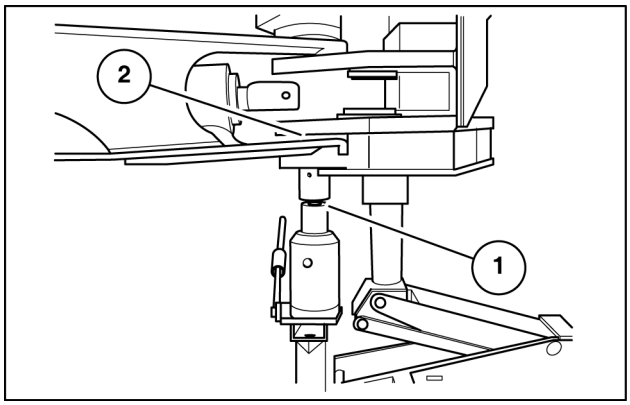
1. Wire damage.
2. Switch internal fault.

Solution:

1. Check the wires for continuity.
2. Replace the button.

Installing the pin

8. Install the pin **(1)** to help fitting from bottom to top, placing two shim washers **(2)** one washer, install the pin up to the back of the washer and the snap ring on the bush.
   If a smaller gap is needed, adjust the assembly, adding or removing washers as necessary.



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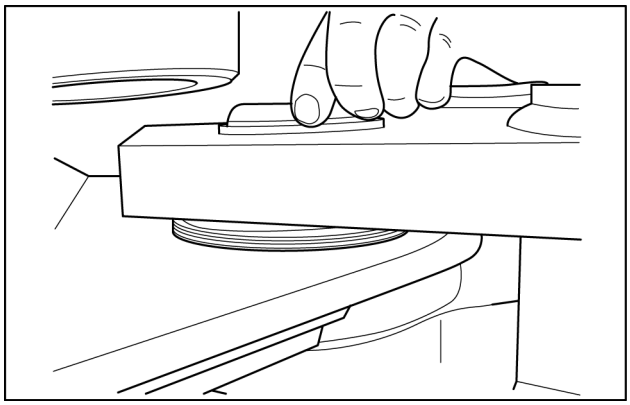
9. After pin assembly, this has to be locked with the snap ring and shim washers must be fitted when the clearance between the snap ring and the bush has to be removed.



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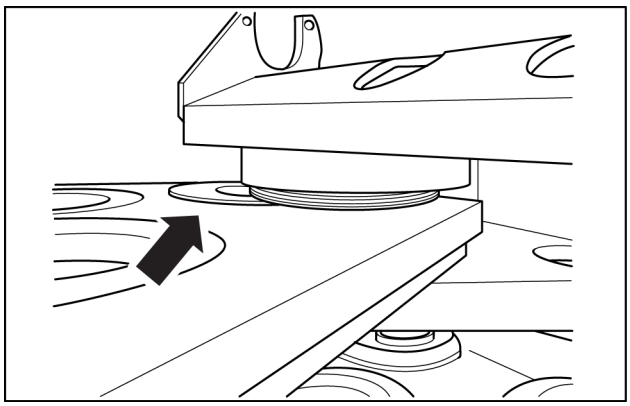
Installing the shim washer

10. Place shim washers on the flanges of the table and chassis as necessary to remove the gap.



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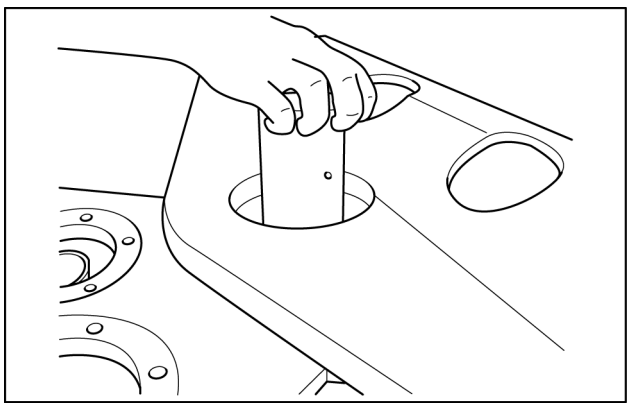
11. Position the pin with the washer, the circlip and the grease nipple upward.



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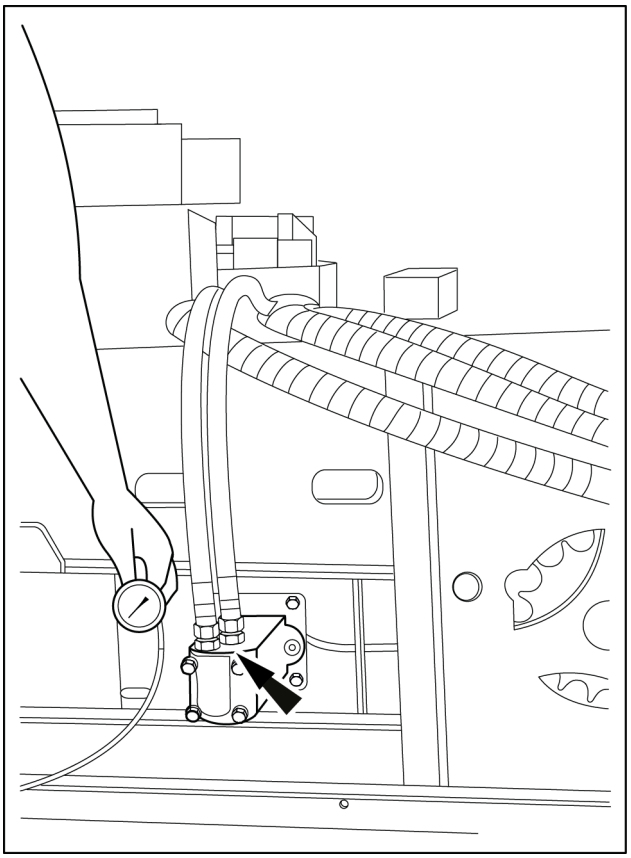
Crop lifter - Pressure test - Elevator, secondary extractor, and flap circuit

Pressure test for the elevator, secondary extractor, and flap circuit

Checking the elevator relief valve

Install a **344.7 bar** (**4998 psi**) pressure gauge at the test point on the elevator valve block. Release and plug one hose on the two elevator transmission motors. Activate the elevator and adjust the relief valve **(3)** to **138 bar** (**2001 psi**).
Reconnect the hoses and remove the gauge.

NOTE: *A hose must be simultaneously blocked on both motors. If only one hose and one motor are blocked, the elevator chain will still keep on running.*
Adjust the relief valve to **138 bar** (**2001 psi**).



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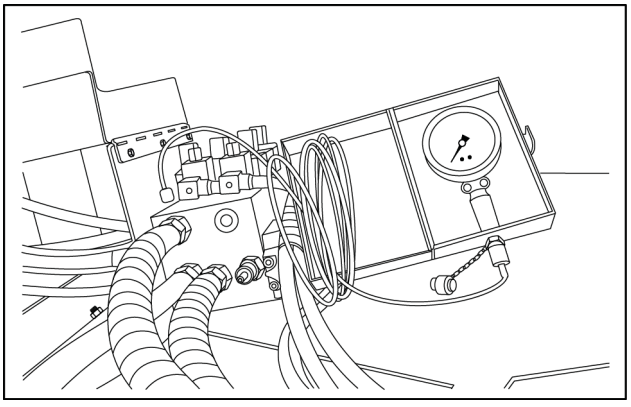
Checking the sequencing valve adjustment

Install a **344.7 bar** (**4998 psi**) pressure gauge at the test point on the elevator valve block. Operate the bin flap cylinder until it reaches the end of the stroke.
Adjust the sequencer valve **(5)** to **120.6 bar** (**1749 psi**).
Remove the manometer.



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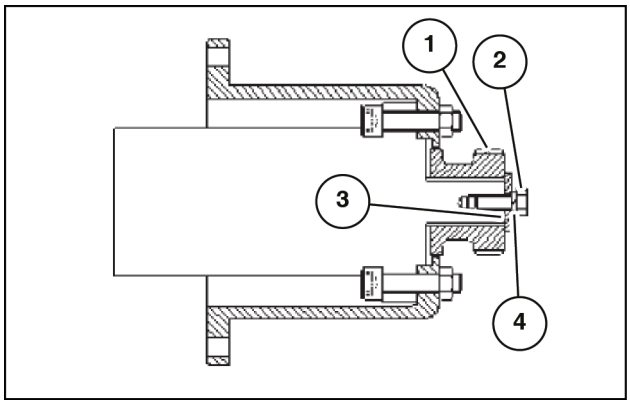
Checking the secondary extractor relief valve

Install a **344.7 bar** (**4998 psi**) pressure gauge at the test point on the elevator valve block. Lock the extractor fan and adjust the relief valve **(4)** to **172.3 bar** (**2498 psi**). Release the extractor fan and remove the pressure gauge.

Feeder housing - Install - Hydraulic motor housings

1. Position the motor correctly in the housing .
   Make sure that the motor mounting position is aligned with the opening on the motor housing.
2. Apply a coating of **LOCTITE® 262™** to the bolt body **(2)**. Install the motor in the housing with a screw **(2)** and bolt and apply a torque of **110 – 130 N·m**.
3. Using ARALDITE, apply a uniform layer on the internal pinion groove **(1)**.
4. Mount the pinion **(1)** on the motor shaft.
5. Fasten the pinion **(1)** to the motor shaft using a plain washer **(3)**, lock washer **(4)** and bolt **(2)** and apply a torque of **50 – 57 N·m**.
6. Using the anti-seize, apply a uniform layer to the external groove of the pinion **(1)**.
7. Position housing on the device secured to the bench and fasten it with the mounting pin.
8. Position the motor in the housing
   of the bowl.Make sure that the motor mounting position is aligned with the opening on the motor housing.
9. Apply a coating of **LOCTITE® 262™** to the bolt body **(2)**. Install the motor in the housing and apply a torque of **110 – 130 N·m**.



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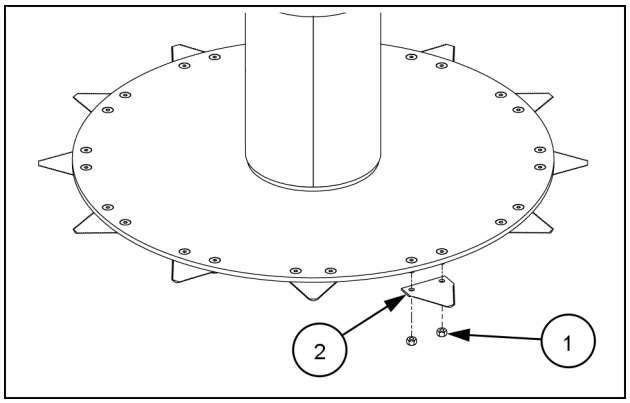
Topper - Disassemble - Cutting disc blades

Prior operation:
Topper - Assemble - Cutting disc blades (60.340)

1. Loosen the nuts **(1)**.
2. Remove the blades **(2)**.



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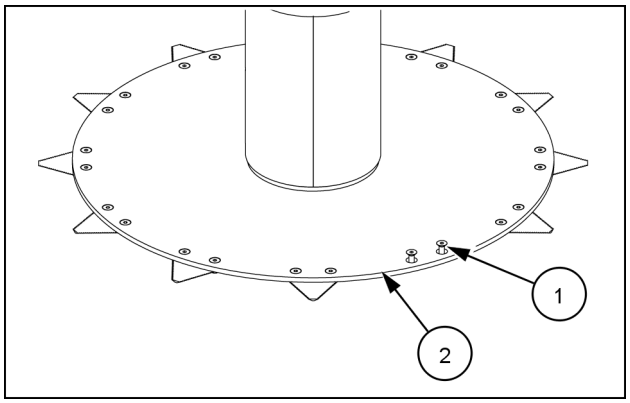
3. Remove the bolts **(1)** from the cutting disc **(2)**.



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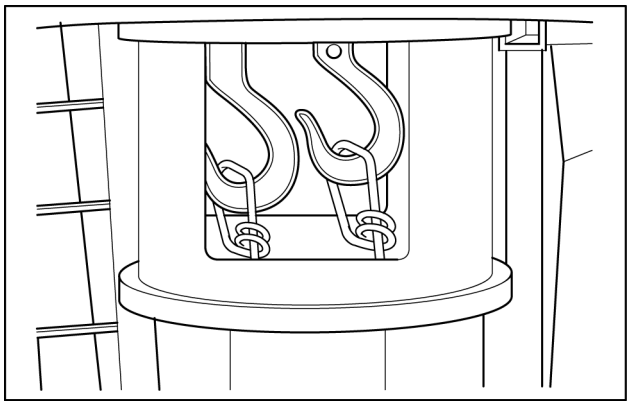
Assembling the bearing housing and the blades on the frame

4. Place the bearing housing on the links so that it can be connected, then fix the bearing housing with bolts and pressure washers. Remove the eye bolts and the overhead crane only after tightening them.



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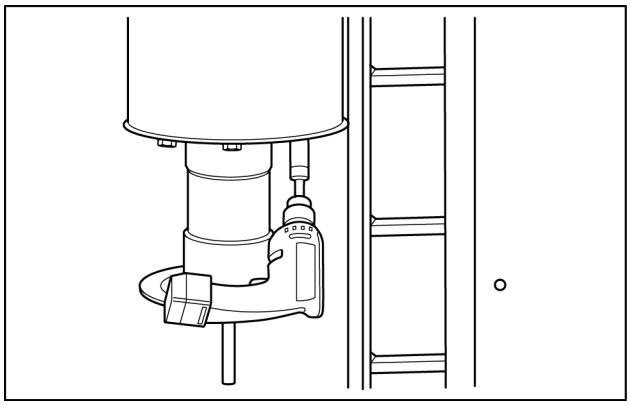

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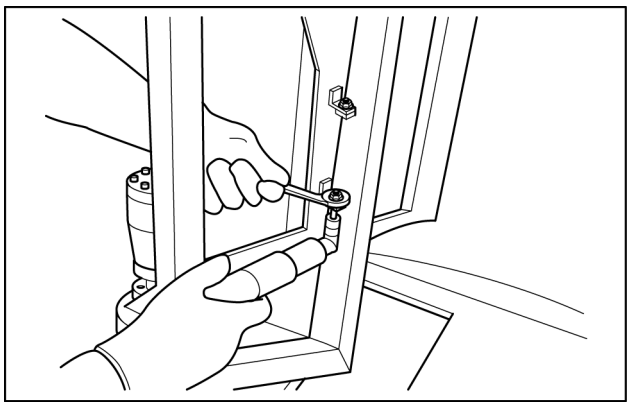
5. Install the 10 blades on the shredder frame, fastening them with the bolts and nuts.

NOTE: *Note the position of the blades and the bolts.*



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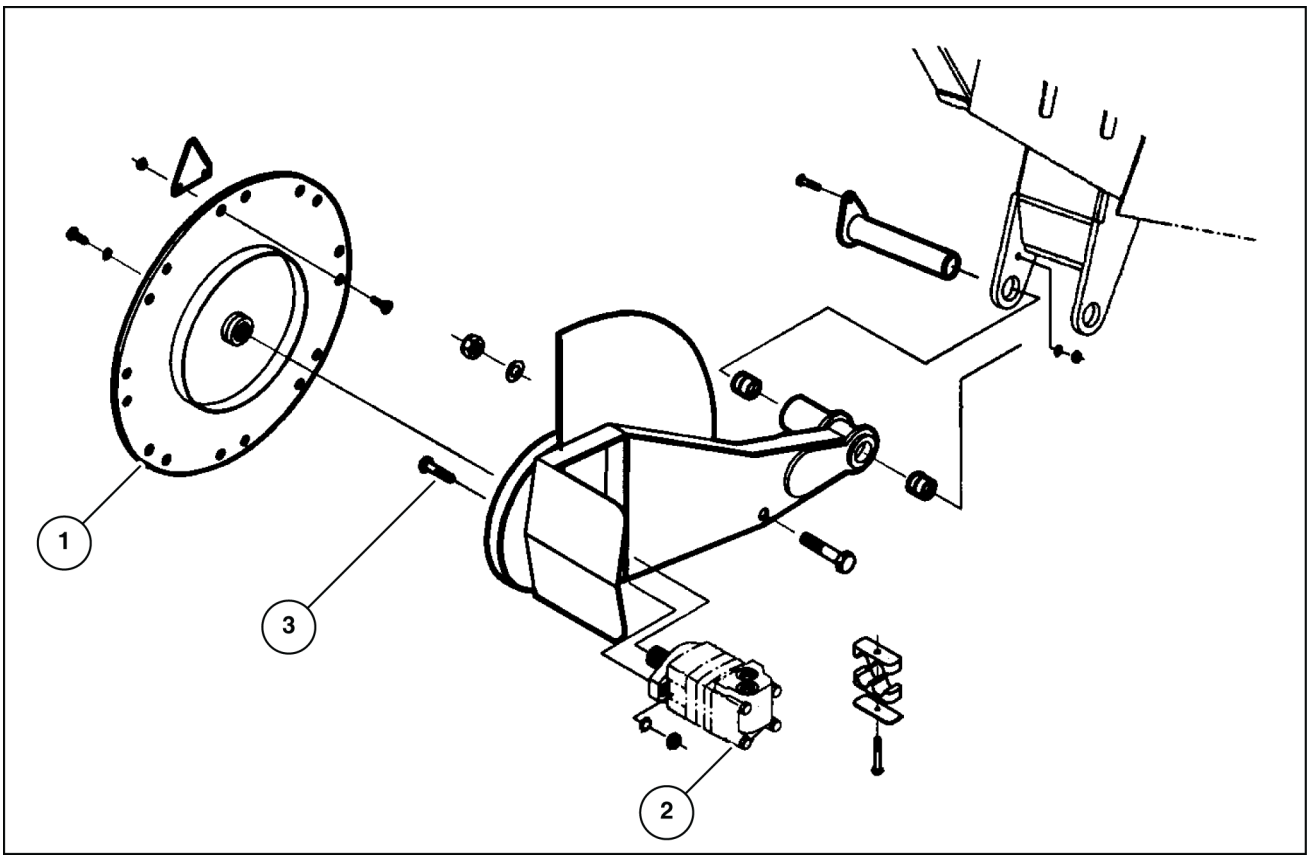
Sidetrim knife - Exploded view



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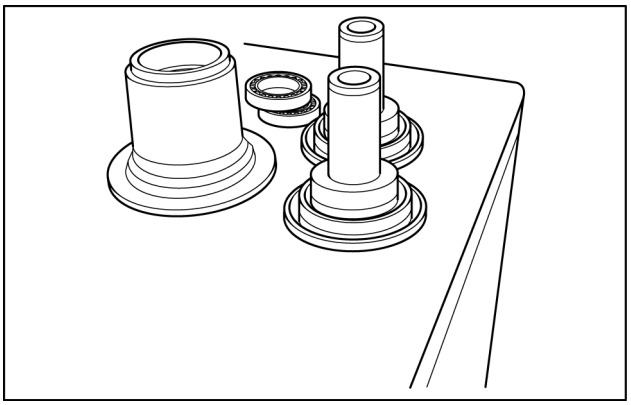
1. Severing disc
2. Hydraulic motor (Char-Lynn)
3. Screws and bolts

Sidetrim knife - Disassemble

1. Remove the hydraulic hoses and plug/cap the fittings.
2. Remove the eight bolts holding the motor base to the frame.3.
3. Remove the bolts holding the cylinders related to motor frame assembly.
4. The side cutting disc assembly can now be dismantled; a tool may be used to remove the disc **(1)**, after removing the retaining plate.
5. To remove the Char-Lynn motor **(2)**, loosen the two bolts **(3)**. Remove the motor from the mounting plate.

4. After the bearing seats on the seal, apply more grease on the bearing.



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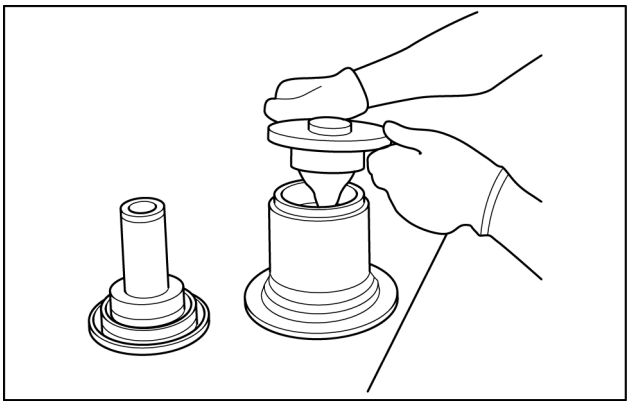
5. Assemble the drive shaft in the housing.



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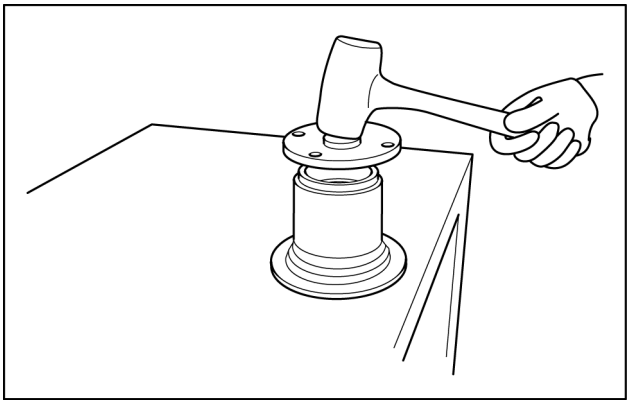

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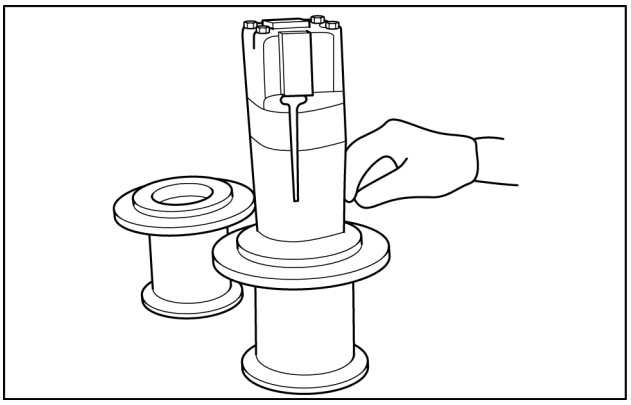
6. Mount the hydraulic motor to the housing, fastening it with bolts.

NOTE: *Use* ***LOCTITE® 262™*** *on the bolts.*



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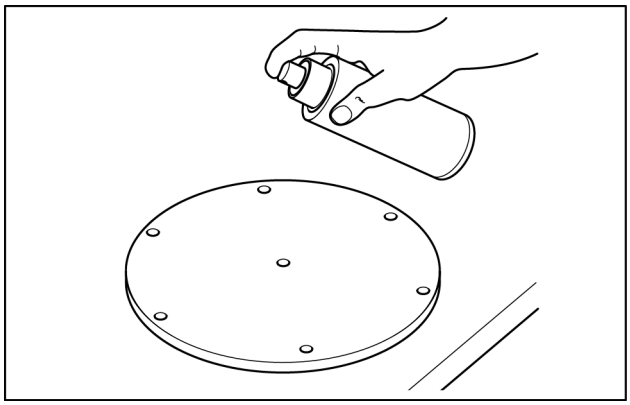
Covers assembly

1. Clean the left and right sides covers using a degreaser and wiping with a cloth.



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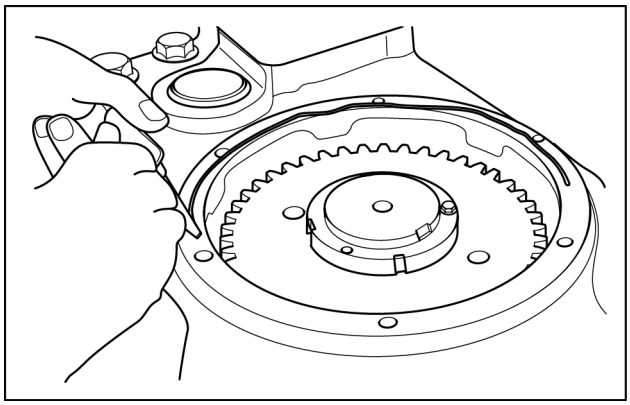
2. Apply **LOCTITE® SI 598™ BLACK** on all parts of the casting where the cover will be installed. Repeat the procedure for the right and left sides.



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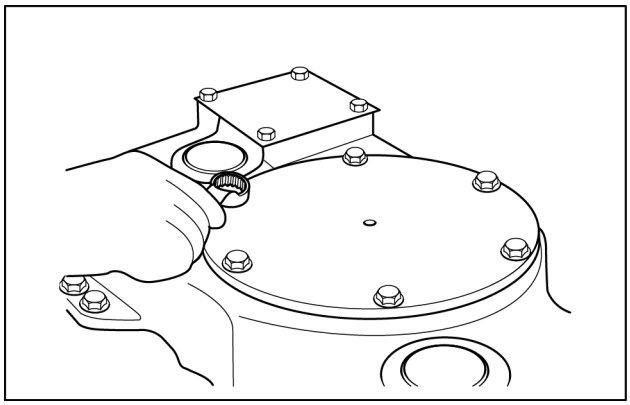
3. Place the cover on the casting, apply LOCITTE 598 on the six bolts and install them with six flat washers. Tighten the bolts in a criss-cross pattern to spread the **LOCTITE®** more evenly. Repeat for the right-hand side.



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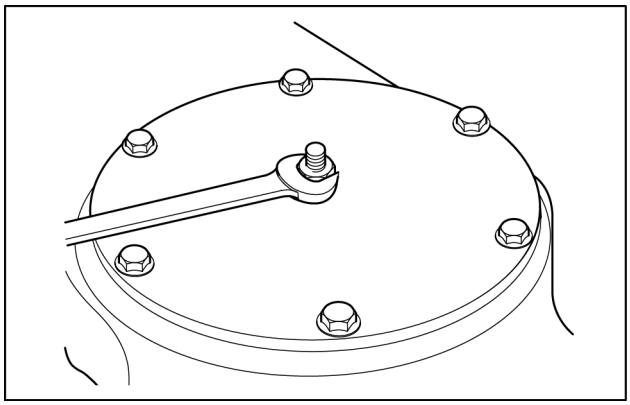
4. On the center of the left-hand side cover, install the adapter, applying LOCTITE 570 to the adapter threads.



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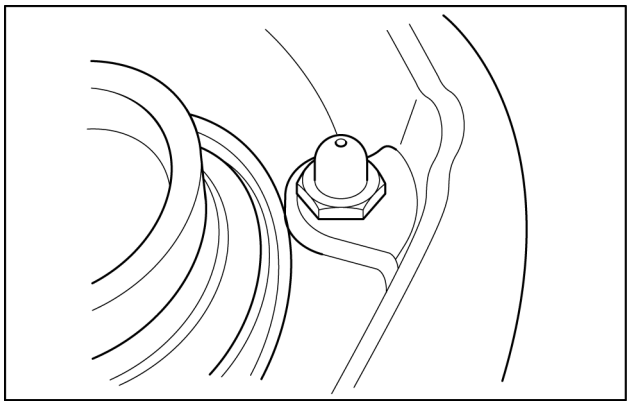
Butt lifter roller - Disassemble

1. Remove the hydraulic hoses from the two drive motors and plug and cap their ends.
2. Support the roller **(1)**, remove the fastening bolts **(2)** from the motor housings **(3)**, and remove the housing and motor assemblies **(4)**.

   The motors must be removed from the housing according to that described for the disassembly of the lower rollers.

4. Assemble four grease fittings to the bearings.



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14. Remove the bolts **(12)** and the washers **(13)** from the hubs **(11)** and remove gears **(14)** and **(15)**.
15. To remove the gear hub, position an extractor using the gear assembly bolt holes.

NOTE: *The gear hub is mounted with ARALDITE. Heat it if necessary to remove it.*

16. To remove chopper rollers **(2)** and **(3)**, remove the retaining ring **(16)** from the bearing **(17)** on the point of the motor shaft.
17. Before removing the drive motors, support the chopper rollers and lock them with wooden blocks; then remove the bearing **(5)** and the flange from the motor **(18)**.
18. Now the choppers drums can be removed, one at a time, thru the opening on the left side of the chassis.
19. Remove the seals and the bearings from both the motor and the gearbox, after having removed the retaining rings. Use the special tool DO382 to extract the bearings **(17)**.
20. When removing the chopper roller components, check the need for repairs or replacements. Clean all components being prepared for assembly. Replace the parts if necessary.

Drum gearbox - Special tools

NOTICE: *The tools that appear below with the symbol "X" are essential for the operations described in this section. However, for greater safety and to obtain the best results as well as saving time and effort, it is recommended that these essential tools be used together with the specific tools listed below and certain tools that should be made according to the construction drawings given in this Manual.*

List of specific tools needed to perform the different operations described in this Section.

X	**380003064**	Chopper box pinion adjustment device
X	**380003084**	**305 mm** (**12 in**) and **381 mm** (**15 in**) chopper box pinion bearing beater
X	**380003095**	**381 mm** (**15 in**) chopper box rear seal beater
X	**380003097**	**381 mm** (**15 in**) chopper box retainer beater