RX-600E TORSIONAL COUPLING AND CENTER SECTION CAMPAIGN

PARTS LIST:
259231-01: TORSIONAL COUPLING
238322-01-C18: CENTER SECTION
238322-01-C4: RADIAL SEAL
THE FOLLOWING PROCEDURE EXPLAINS THE STEPS REQUIRED TO
CHANGE THE CENTER SECTION SHAFT FROM THE PUMP DRIVE
ASSEMBLY AS WELL AS THE TORSIONAL COUPLING ATTACHED TO
THE FLYWHEEL OF THE ENGINE.

PLEASE READ AND UNDERSTAND THE ENTIRE PROCEDURE
BEFORE ATTEMPTING TO CHANGE THE CENTER SECTION AND
TORSIONAL COUPLING.

ALL SAFETY MEASURES SHOULD BE ADDRESSED BEFORE
STARTING THE PROCEDURE.

BEFORE STARTING THE PROCEDURE, PLACE THE MACHINE ON THE
LEG ASSEMBLY SAFETY BARS.
REMOVE THE HOOD FROM THE MACHINE
ATTACH A 1/2 EYE BOLT THROUGH THE HOLES IN THE TOP OF THE HOOD. SECURE A CLEVIS AND STRAP TO THE EYE BOLT AND SECURE TO A CRANE CENTERED OVER THE HOOD.
APPLY TENSION TO THE HOOD STRAPS
REMOVE BOTH HOOD CYLINDER SHOULDER BOLTS

Once the Hood Cylinders are Removed, use the machine’s power pack and lower the hood cylinders down to get them out of the way. Use the crane and stand the hood up vertical.

At this point, power is no longer needed to the machine. Lock and tag out the battery disconnect switches to the machine.
• REMOVE THE (QTY 2) 3/8 BOLTS FROM THE HOOD PINS.
• REMOVE THE PINS
RAISE HOOD OFF THE MACHINE
REMOVE THE LOWER BELT HOUSING DOOR
SECURE THE SIDE PANEL WITH A CHOKED STRAP ATTACHED TO A CRANE
REMOVE THE 3/8 BOLTS ON THE SIDE PANEL

HYDRAULIC TANK CAPACITY:

90 GAL

NOTE: AT 90 GAL THE TANK IS AT 90% CAPACITY. AT 100% CAPACITY THE TANK WILL OVERFLOW
DRAIN THE HYDRAULIC TANK
REMOVE THE HEAT SHIELD COVERING THE TURBO IN ORDER TO ACCESS THE CLAMP ON THE TURBO EXHAUST PIPE

REMOVE THE FOUR BOLTS HOLDING THE HEAT SHIELD

REMOVE THE 3 3/8 BOLTS HOLDING THE HEAT SHIELD

NOT PICTURED BUT THIS BOLT IS DOWN UNDERNEATH
ONCE THE HEAT SHIELD IS REMOVED, THE EXHAUST PIPE CLAMP CAN BE ACCESSED. LOOSEN THE CLAMP IN ORDER TO RELEASE THE PIPE.

NOTE: THE EXHAUST WRAP DOES NOT NEED TO BE REMOVED FROM THE PIPE.

REMOVE THE CLAMP AT THE AFTERTREATMENT UNIT.

REMOVE THE EXHAUST PIPE FROM THE MACHINE
LOCATE THE REAR VALVE MANIFOLD BLOCK ATTACHED TO THE TOP OF THE PUMP DRIVE
MARK AND REMOVE ALL THE DIN CONNECTORS FROM THE REAR VALVE MANIFOLD
MARK AND REMOVE ALL THE DIN CONNECTORS FROM THE MULTIFUNCTION VALVE ON THE TOP OF THE HYDRAULIC TANK
DEPENDING ON THE ROUTING OF THE REAR CAMERA CABLE. THE CABLE MAY HAVE TO BE DISCONNECTED FROM THE CAMERA AND ROUTED BACK TO THE FRONT OF THE MACHINE TO CLEAR THE PUMP DRIVE.
MISC CABLES WILL NEED TO BE REMOVED AND CLEARED FROM THE PUMP DRIVE.

HYD OIL TEMPERATURE SENSOR

COOLANT LEVEL SENSOR AT THE SURGE TANK

THIS CABLE RUNS TO THE AFTERTREATMENT UNIT AND THE COOLANT LEVEL SENSOR
REMOVE THE AFTERTREATMENT COVER
REMOVE THE 3 SENSOR CABLES FROM THE AFTERTREATMENT
ONCE THE SENSOR CABLES ARE DISCONNECTED, FEED THEM THROUGH THE SIDE WALL AND PULL THEM BACK THROUGH THE MACHINE WITH THE COOLANT LEVEL SENSOR. BACK TRACK THE CABLES FAR ENOUGH TO CLEAR THE PUMP DRIVE.
MARK AND REMOVE THE 4 EDC CONNECTORS FROM THE PUMPS
ONCE ALL OF THE ELECTRICAL CONNECTORS HAVE BEEN **MARKED** AND REMOVED, CLEAR THE LINES FROM THE PUMP DRIVES.

THE DIN CONNECTOR CABLES WILL BE REMOVED TOWARD THE REAR OF THE MACHINE.

THE SENSOR CABLES AS WELL AS THE CAMERA CABLE WILL BE ROUTED TOWARDS THE FRONT OF THE MACHINE.
MARK ALL THE HYD HOSES TO THE FILTER BANK. REMOVE THE HOSES FROM THEIR COORDINATING PUMPS. THE HOSES WILL BE REMOVED FROM THE MACHINE STILL ATTACHED TO THE FILTERS AS SHOWN IN THE PICTURE ABOVE.
FILTER BANK REMOVAL

CHOOSE A STRAP AROUND THE FILTER BANK AND REMOVE THE 2 SETS OF ½ BOLTS ON BOTH SIDES OF THE FILTER BANK.
REMOVE THE HYDRAULIC HOSES PER PUMP
• CASE DRAIN HOSE DOES NOT HAVE TO BE REMOVED FROM THE PUMP.

• ONCE THE HYDRAULIC TANK IS DRAINED. THE SUCTION LINE CAN BE REMOVED FROM THE TANK.
PRIMARY CONVEYOR PUMP CONT.

CASE DRAIN HOSE STAYS ATTACHED

LOOP FLUSHING HOSE STAYS ATTACHED

SUCTION LINE IS DISCONNECTED FROM THE TANK.
• CASE DRAIN HOSE DOES NOT HAVE TO BE REMOVED. THERE IS A BRANCH TEE CONNECTING THE CASE DRAIN FROM THE PRIMARY AND SECONDARY CONVEYOR PUMPS. THESE HOSES DO NOT HAVE TO BE REMOVED FROM THE MACHINE.

• SUCTION HOSE WILL REMAIN ON THE PUMP AND BE REMOVED FROM THE TANK
SECONDARY CONVEYOR CONT.

CASE DRAIN HOSES WITH RUN TEE. DO NOT NEED TO BE REMOVED.

SUCTION LINE REMAINS ON THE PUMP
• CASE DRAIN IS THE ONLY HOSE THAT CAN REMAIN ON THIS PUMP
CASE DRAIN IS THE ONLY HOSE THAT DOES NOT HAVE TO BE REMOVED FROM THIS PUMP.
TRAVEL PUMP CONT.

FORWARD PRESSURE HOSE CAN BE REMOVED FROM THE MANIFOLD

MANIFOLD MOUNTED TO THE MOTOR MOUNT
MAKE SURE TO REMOVE DIN CONNECTOR FROM THE SOLENOID

CASE DRAIN HOSE IS THE ONLY ONE THAT DOES NOT NEED TO BE DISCONNECTED.
FAN PUMP CONT.

CASE DRAIN

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MISC HOSES TO BE REMOVED

- REMOVE THE THIS TEE FROM THE CASE DRAIN
- UNCLAP THE CLUTCH HOSE
- REMOVE HOSE TO THE CLUTCH
MISC HOSES CONT.

REMOVE THE HOSE FROM THE END OF THE CASE DRAIN MANIFOLD
PREPARE THE PUMP DRIVE FOR REMOVAL

REMOVE THE TWO M20 BOLTS FROM THE TOP OF THE PUMP DRIVE AND INSTALL TWO M20 LIFTING EYES.

QTY 2
MANUEVER A CRANE OVER THE PUMP DRIVE AND ATTACH A SPLITTER CHAIN TO THE M20 LIFTING EYES
RUN A CHOKE STRAP AROUND THE NECK OF THE CLUTCH
ATTACK A COME-ALONG BETWEEN THE STRAP AND THE RING OF THE SPLITTER CHAIN

NOTE: ATTACHING A COME-ALONG BETWEEN THE STRAP AND THE RING ON THE SPLITTER CHAIN, WILL ALLOW FOR TILT ADJUSTMENTS TO BE MADE.

ONCE THE COME-ALONG IS IN PLACE. APPLY A SMALL AMOUNT OF TENSION TO THE CHAINGE
REMOVE THE 12 (7/16) BOLTS HOLDING THE BELL HOUSING ONTO THE FLYWHEEL OF THE ENGINE
ONCE THE BOLTS ARE REMOVED FROM THE BELL HOUSING, REMOVE THE BOLTS FROM PUMP DRIVE MOTOR MOUNTS. THERE WILL BE FOUR BOLTS ON EACH SIDE OF THE PUMP DRIVE.
REMOVE THE CLUTCH SUPPORT BRACKET IN THE BELT GUARD OF THE MACHINE
REMOVE THE REAR MANIFOLD FROM THE BRACKET ATTACHED TO THE PUMP DRIVE

• REMOVE THE 4 (3/8) BOLTS ON THE BOTTOM OF THIS MANIFOLD.

• ONCE THE BOLTS ARE OUT OF THE MANIFOLD, FOLD THE MANIFOLD BACK OUT OF THE WAY OF THE PUMP DRIVE.
AT THIS POINT, THE PUMP DRIVE IS READY FOR REMOVAL.

• MAKE SURE THERE IS SLIGHT TENSION ON THE CHAIN AND STRAP ATTACHED TO THE PUMP DRIVE.

• THE CENTER SECTION SHAFT WILL HAVE TO SLIDE OUT OF THE COUPLING APPROXIMATELY 3 IN.

• USE PRY BARS OR A POWER PACK TO PUSH THE PUMP DRIVE OUTWARDS.

• MAKE SURE TO PUSH THE PUMP DRIVE EVENLY OFF THE TORSIONAL COUPLING.

(ACCESS POINTS ARE IN THE FOLLOWING SLIDES)
SIDE OF THE PUMP DRIVE TOWARDS THE FRONT OF THE MACHINE
SIDE OF THE PUMP DRIVE TOWARDS THE REAR OF THE MACHINE
REMOVE THE PUMP DRIVE FROM THE MACHINE
DRAIN THE OIL OUT OF THE PUMP DRIVE

DRAIN PLUG ON BOTTOM

FLUID CAPACITY: 13 QUARTS
USE THE COME-ALONG TO LAY THE PUMP DRIVE DOWN ON ITS BACK. PLACE 2X4’S UNDER THE BELL HOUSING AND MANIFOLD BRACKET.
REMOVE THE QTY 12 (10 MM) CLUTCH BOLTS
TAKE QTY 2 10 FT STRAPS AND CHOCK THEM AROUND THE NECK OF THE CLUTCH. ATTACH TO A CRANE AND LIFT VERTICALLY OFF OF THE PUMP DRIVE
REMOVE THE CLUTCH ADAPTER RING FROM THE PUMP DRIVE.

(THE UNIT WILL COME OUT IN ONE PIECE. DO NOT WORRY ABOUT REMOVING THE OUTER BOLTS)
WRAP TWO STRAPS THROUGH THE ADAPTER AND LIFT THE ADAPTER PLATE OFF THE PUMP DRIVE.
REMOVE THE (QTY 8) M12 X 30 BOLTS FROM THE CENTER SECTION
TAKE QTY 2 OF THE EXISTING BOLTS AND USE THEM FOR PUSH OFF BOLTS IN THE TWO HOLES.
LIFT OUT OLD CENTER SECTION FROM THE PUMP DRIVE
REMOVE THE EXISTING OIL SEAL
USE A HIGH PERFORMANCE SILICONE GASKET MAKER AND APPLY TO THE EXTERIOR RING AS SHOWN ABOVE.
INSTALL THE NEW CENTER SECTION.
(DO NOT INSTALL RADIAL SEAL)
INSTALL THE QTY 8 BOLTS FROM THE CENTER SECTION. (USE 242 LOCTITE)
RE-INSTALL THE CLUTCH PLATE ADAPTER.
USE 271 LOCTITE ON THE QTY 8 BOLTS
TORQUE BOLTS TO 250 FT LBS.
RE-INSTALL THE CLUTCH TO THE PUMP DRIVE.
(USE 242 LOCTITE)
USE THE CRANE AND STRAP TO STAND THE PUMP DRIVE ASSEMBLY BACK UP VERTICAL.
THE SEAL SHOULD BE FLUSH AGAINST THE FACE OF THE PUMP DRIVE
REFILL THE PUMP DRIVE WITH 13 QUARTS OF (SUMMIT SH1010 POLY-ALPHA –OLEFIN BASED SYNTHETIC LUBE)
REMOVE TORSIONAL COUPLING FROM THE FLYWHEEL OF THE ENGINE
• REMOVE THE SOC-HD BOLTS AT 3 O’CLOCK AND 9 O’CLOCK POSITIONS FIRST.
• INSTALL (QTY 2) ½ X 6” BOLTS INTO THESE LOCATIONS.
• REMOVE THE REMAINING SOC-HD BOLTS FROM THE TORSIONAL COUPLING.
SLIDE THE TORSIONAL COUPLING AWAY FROM THE FLYWHEEL OF THE ENGINE
• RUN A STRAP THRU THE CENTER OF THE TORSIONAL COUPLING AND ATTACH TO A CRANE WITH SLIGHT TENSION
• REMOVE THE (QTY 2) ½ X 6” BOLTS
• LIFT TORSIONAL COUPLING OUT OF THE MACHINE
THE OLD TORSIONAL COUPLING WAS A TWO PIECE COUPLING. MAKE SURE BOTH THE COUPLING AND THE SPACER RING ARE BOTH REMOVED FROM THE FLYWHEEL OF THE ENGINE.
THE NEW STYLE TORSIONAL COUPLING HAS THE SPACER RING BUILT INTO THE TORSIONAL COUPLING. THIS RING IS HELD TOGETHER BY (QTY 2) 3/8 SOC HD BOLTS. (DO NOT REMOVE THESE BOLTS)
LIFT NEW TORSIONAL COUPLING INTO PLACE IN THE ENGINE COMPARTMENT. (NOTE THE STAMP ON THE NEW TORSIONAL COUPLING INDICATING FLYWHEEL SIDE.)

THIS IS THE FLYWHEEL SIDE OF THE TORSIONAL COUPLING
INSTALL THE NEW TORSIONAL COUPLING TO THE FLYWHEEL OF THE ENGINE
USE 242 LOCTITE AND RE-INSTALL THE (QTY 8) ½ X 2 ¾ SOC HD BOLTS
TORQUE BOLTS TO 85 FT LBS
RE-INSTALL THE PUMP DRIVE ASSEMBLY TO THE ENGINE
ONCE THE PUMP DRIVE ASSEMBLY IS RE-INSTALLED IN THE TORSIONAL COUPLING. REPEAT THE STEPS OF THIS PROCEDURE IN REVERSE IN ORDER TO PUT THE MACHINE BACK TOGETHER.