# DURACLUTCH INSTALLATION
# 15-645 K-DC-RANGER-DSL-YANMAR RXS

SVI, LLC 20MAR2026

PART #: 15-645
MODEL: DC-RANGERDSL-YANMAR RXS
DESCRIPTION: MY11-14 RANGER 900 DIESEL ALL MODELS, BOBCAT DIESEL (YANMAR)
MY2015 RANGER HIPPO-DIESEL

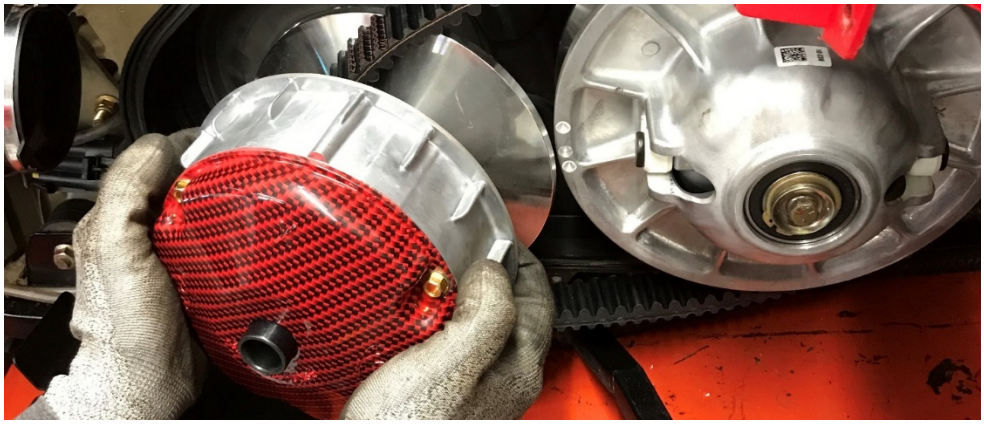
KIT CONTENTS:

1. 10-396 ASM-DC PRIM 71G RXS -YANMAR
2. 25-146 BUSHING-CLUTCH WASHER
3. 75-072 SCREW-CLUTCH YANMAR
4. 99-024 TOOL-12MM BIT SOCKET 3/8" DRIVE
5. 10-189 ASM-DC SECONDARY 9.5 CW
6. 35-058 BELT (SUBSTITUTE 3211160)
7. 30-091 TOOL-BELT INSTALL
8. 99-036 BLUE THREADLOCKER
9. 97-010 DECALS - CLUTCH HOUSING AND DASH 3211160
10. 98-066 DURACLUTCH WARRANTY
11. 98-158 INSTALLATION INSTRUCTIONS 15-645 (THESE INSTRUCTIONS)

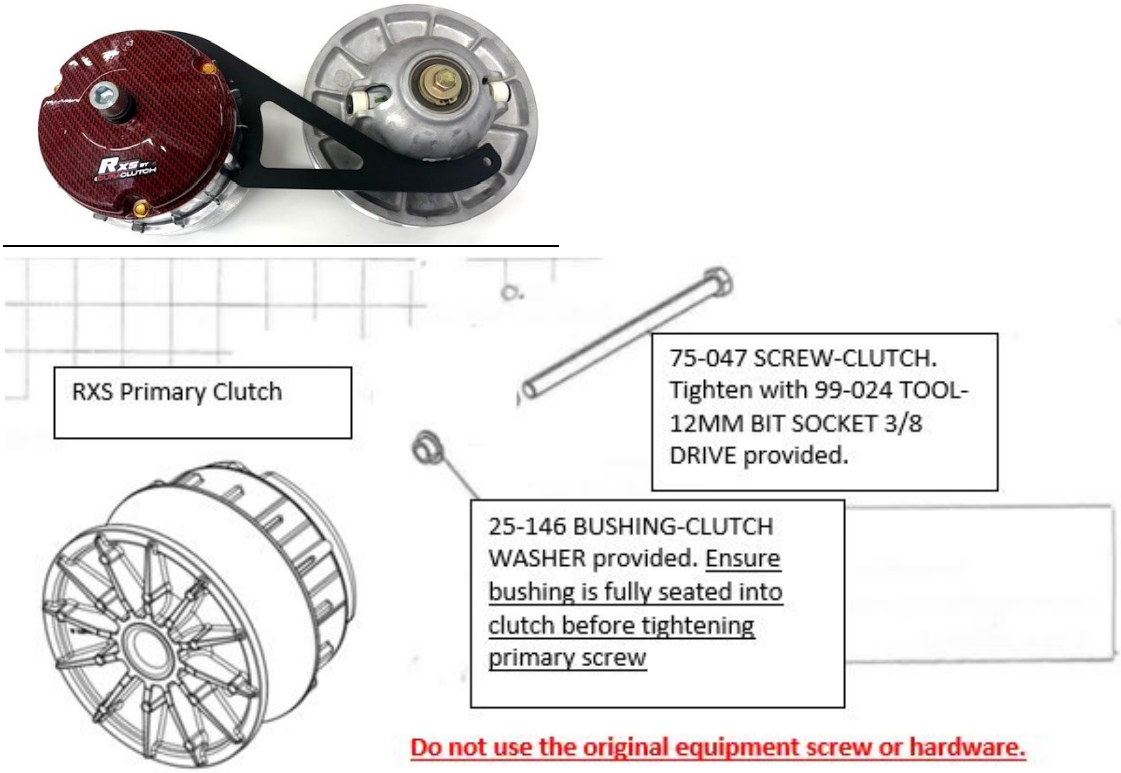
DURACLUTCH INSTALLATION

1. Remove the Secondary clutch.
2. Install DURACLUTCH Secondary. Note the number of washers behind the secondary for Step 8. There should be 1 to 3. Remove 1 washer. Add blue threadlocker to secondary screw and tighten to 15 ft-lbs.
3. Remove Primary clutch bolt. This bolt is left hand thread. Remove the Primary clutch with puller SVI PN 99-030. The puller is right hand thread. Greasing the end of the puller slightly will aid in removal. Do not get grease on any clutch components.
4. Clean the engine tapered shaft and Primary clutch bore with alcohol or degreaser. Do not lubricate.
5. Slip the belt into the Secondary so you can read the part number on the belt and using Belt Install Tool open secondary so belt will seat down into clutch. Sometimes a screwdriver is needed to assist lowering into clutch.

6. Slide the belt into the Primary clutch, then install primary on post.



7. Install DURACLUTCH Primary with hardware provided as shown below. **VERY IMPORTANT -Torque bolt to 60 ft-lbs. <u>Over tightening will not allow clutch to operate properly and cause damage and failure of the clutch.</u>** SVI PN 99-034 Torque Tool (Sold Separately) shown below to hold the primary clutch when torquing the primary screw.




8. Set belt tension. Place transmission in neutral and set park brake. APPLY FOOT BRAKE TO ENSURE VEHICLE REMAINS STATIONARY. Apply slight throttle to turn Secondary.

8. Shift transmission through gears: HI-LO-N-REV. If shift is difficult check idle RPM and make sure less than 1000 RPM. See INSTALLATION SUPPLEMENT.
   If shifting is still difficult the secondary alignment may need adjustment. See step 2 above. If there are washers behind the secondary remove one of the washers at a time from behind the secondary and check shifting. If all the washers are removed and it is still difficult to shift, add all washers back including the one removed in step 2.
   NOTE: If the transmission still shifts hard there are likely issues other than drag in the clutches such as a worn shift cable or a bent shift fork inside the transmission. See your dealer or call DURACLUTCH service at 218-967-8205.

9. Install outer clutch housing. Ensure seal is good or replace. After starting the engine if you hear the primary rubbing, push on the cover while the engine is running in different directions to see which way will eliminate the rubbing. Stop the engine and loosen the housing screws and retighten using a top to bottom sequence while pushing on the cover in the direction that eliminated the rubbing. If this does not eliminate the rubbing, try installing a new gasket and go through the bolt tightening sequence again. If you cannot eliminate the rubbing the cover is heat warped and you may have to install a new cover and perhaps a new back plate. You may also try using a heat gun to remove heat sag in the cover.

DECALS

10. Apply two decals as shown – one on the clutch housing and one on the dash. Clean surface with alcohol or similar non-harsh solvent. Decal application is important to alert service technicians that the standard Polaris clutches have been replaced.


**RANGER 900 DIESEL AND DIESEL CREW (YANMAR)**
**DURACLUTCH INSTALLATION SUPPLEMENT**

IT IS IMPORTANT TO COMPLETE THESE
SUPPLEMENTARY INSTRUCTIONS FOR BEST PERFORMANCE

There is a 15% speed increase between the engine and Primary drive. The engine idle speed must be 950 – 1000 RPM (1100 – 1150 Primary RPM). This is to insure the heavy diesel flyweights in the Primary clutch do not put thrust load on the movable sheave clutch pack before the clutch packs engage. This thrust load may increase drag and the gear transmission may not shift easily between HI, LO and REVERSE.

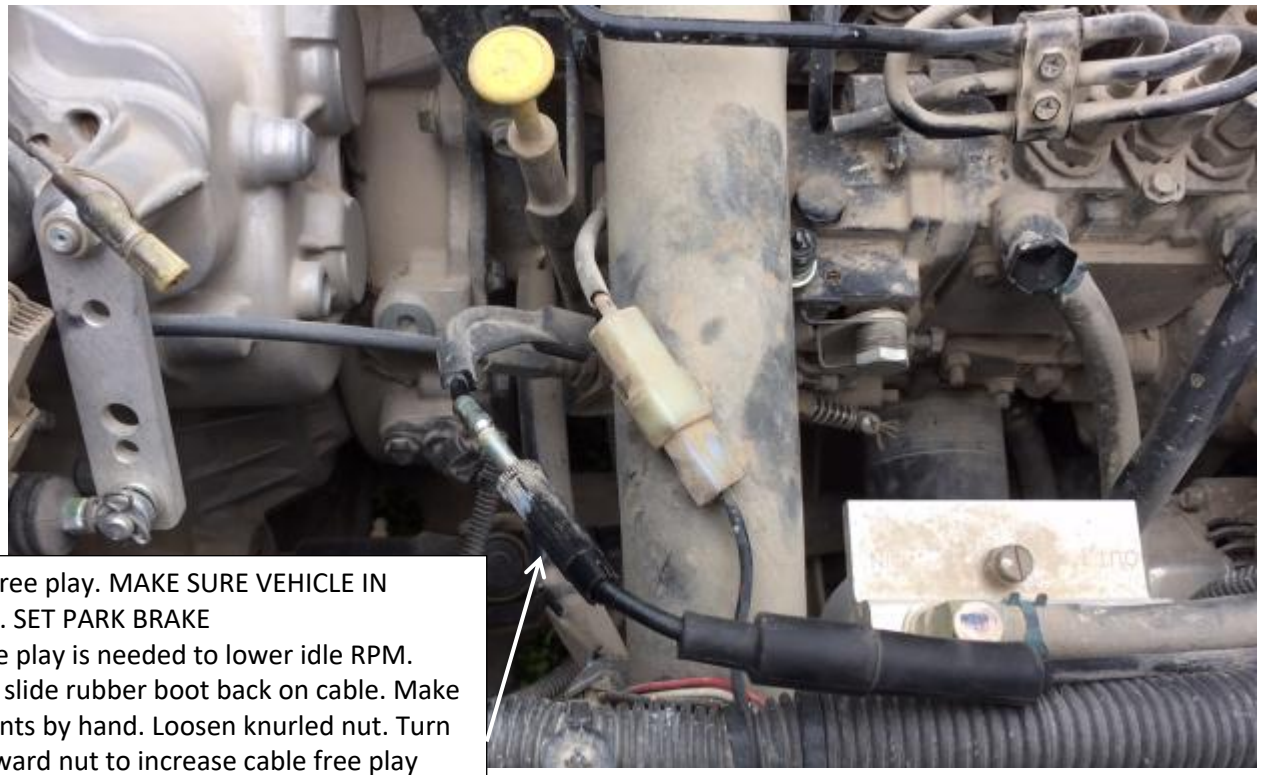
WARNING: WHEN MAKING ADJUSTMENTS MAKE SURE THE VEHICLE IS IN NEUTRAL AND THE PARK BRAKE IS ON!

1. Lower the idle RPM if above 1000 RPM. Before lowering the engine idle RPM there must be free play in the cable or it will not be possible to make the adjustment. Adjust cable free play per photo instructions.

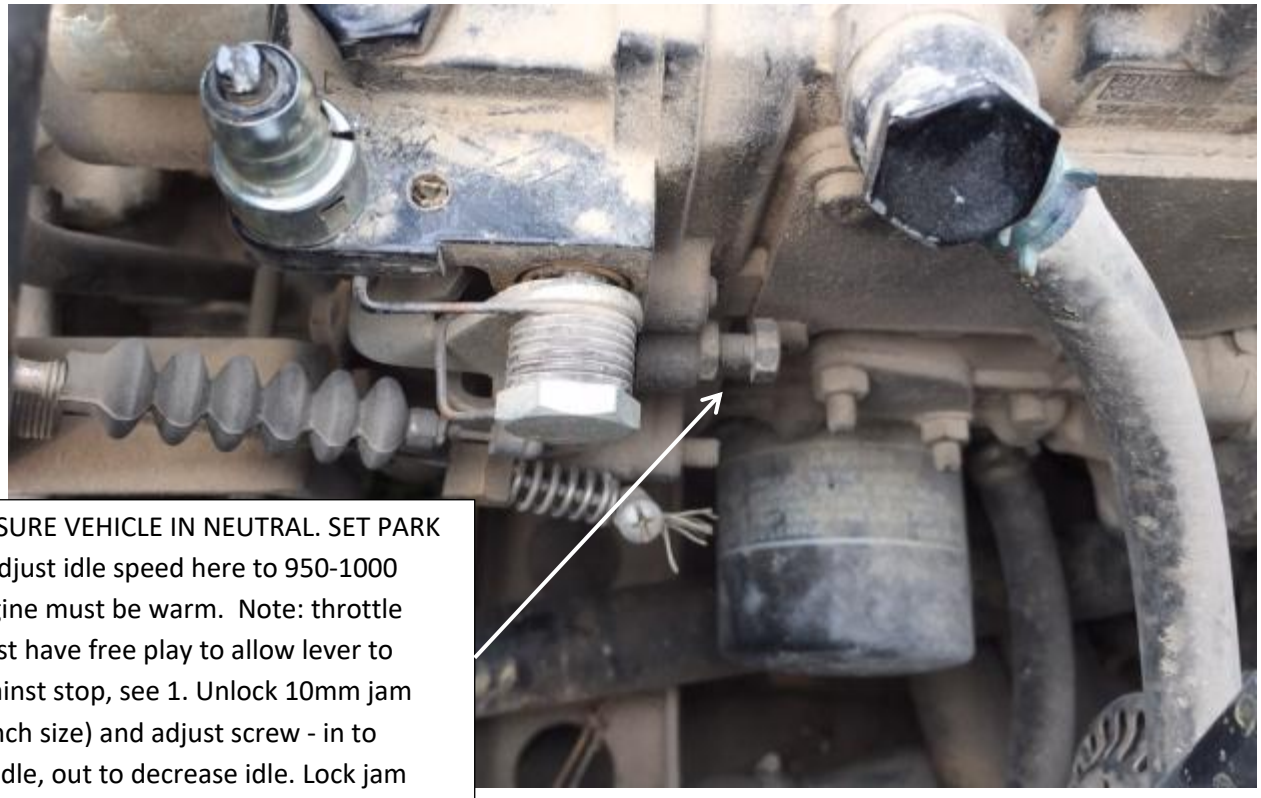
2. Adjust the idle per photo instructions. The engine must be warm.

3. Run the vehicle full throttle on a level hard packed road and check to see if the engine RPM reaches 3600. If not, adjust the high speed throttle stop to increase the full throttle RPM and check again on the road. If necessary re-adjust until the RPM is 3600 on the road at full throttle. See photo instructions.

   Note: We have found that the full throttle engine RPM without load will be 3750 to 3800. You can shortcut the process and adjust as follows.
   - Make sure the clutch housing cover is installed
   - Place the gear selector in Neutral
   - Apply the Park Brake
   - Check full throttle RPM in Neutral
   - Adjust the full throttle stop to get 3750-3800 RPM
   - Check to see if RPM is 3600 under load on the road
   - Readjust if necessary.



1. Cable free play. MAKE SURE VEHICLE IN NEUTRAL. SET PARK BRAKE
Cable free play is needed to lower idle RPM. To adjust slide rubber boot back on cable. Make adjustments by hand. Loosen knurled nut. Turn barrel toward nut to increase cable free play (shorten). Turn away from nut to decrease free play (lengthen). After idle RPM is set adjust barrel so cable is just tight and then back off ½ turn. Lock knurled nut against barrel. There should be ¼" to ½" free travel in the foot pedal before the throttle opens. After all adjustments complete slide rubber boot back in place.



2. MAKE SURE VEHICLE IN NEUTRAL. SET PARK BRAKE. Adjust idle speed here to 950-1000 RPM. Engine must be warm. Note: throttle cable must have free play to allow lever to move against stop, see 1. Unlock 10mm jam nut (wrench size) and adjust screw - in to increase idle, out to decrease idle. Lock jam nut.

3. Check full throttle RPM on a hard packed road. RPM should be 3600. Engine must be warm.
If needed adjust the high-speed throttle stop. Gently remove the cap on the high-speed adjustment. While prying up with a thin blade place a screwdriver in the slot and pull up.



With cap off

To adjust full throttle RPM unlock the screw with 10mm wrench (CCW) while holding screw. Adjust screw out to increase RPM (CCW). While holding the screw, lock throttle adjustment with wrench. Re-check full throttle RPM. Replace cap.

**DURACLUTCH R-SERIES WARRANTY**

The DURACLUTCH warranty is separate from the Polaris vehicle warranty. SVI, LLC provides a limited warranty on the DURACLUTCH for defects in materials and workmanship for general consumer use. This includes the primary, secondary and belt. It does not cover claims of defective design. SVI, LLC is responsible for DURACLUTCH warranty.

The warranty term of coverage is as follows:

- Belt: One (1) Year.
- Primary and Secondary: One (1) Year.

The term begins on the date of purchase by the original purchaser. This warranty is transferable to a subsequent owner but does not extend the original term of the warranty.

This limited warranty does not cover acts of God, accidental damage, normal wear and tear, abuse, or improper handling.

<u>The following conditions void the warranty:</u>

1. Improper installation.
2. Installation of tires with a diameter greater than the O.E.M. tire diameter without compensating gear reduction such as portals, transmission gearing or both.
3. Not performing prescribed routine maintenance by removing the clutch housing every 500 miles to 1) blow the dust out of the primary and secondary clutch, 2) examine the belt, and other components for abnormal wear indicating a problem needing corrective action.
4. Not insuring adequate and continuous cooling air through the clutch housing. This includes intake vents and outlets plugged with snow, dust, or debris. SVI offers an Engine and Clutch Intake Kit for certain models that prevent vehicle intakes from plugging with snow and dust.
5. Use of an improper belt. *<u>Appropriate DURACLUTCH belt must be used</u>*.
6. Modifying calibration, such as primary spring and roller, or secondary spring and cam.
7. Water in the clutch housing. Water damage or rust on clutches, this includes if you have gotten clutches wet while riding, washing the machine or wet when clutches are removed.
8. Abnormal dust conditions such as abrasive dust or running in very dusty conditions without filters or particle separators.
9. Driver abuse such as continuing to operate in HI gear when LO gear is the proper gear.

This warranty replaces all previous warranties expressed or implied.

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