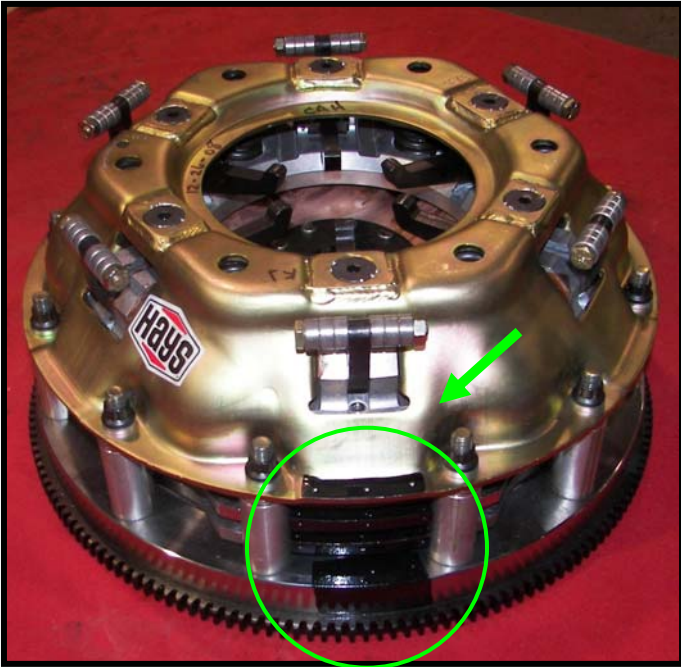


# HMR 4 DISC COMPETITION PULLER CLUTCH CUMMINS TURBO DIESEL APPLICATION INSTALLATION INSTRUCTIONS



1. THIS CLUTCH HAS BEEN HAND ASSEMBLED, ADJUSTED AND TESTED FOR PROPER OPERATION. NO ADJUSTMENT IS NEEDED BEFORE INSTALLATION.
2. OPEN BOX, INSPECT FOR SHIPPING DAMAGE.
3. IDENTIFY ALL DISTINCTIVE BLACK PAINT MARKS. THEY ARE LOCATED ON THE FLYWHEEL, ALL FLOATERS AND THE PRESSURE PLATE. (CENTER PUNCHED AS WELL IN THE CASE OF PAINT REMOVAL.)
4. REMOVE (12) PRESSURE PLATE NUTS. LOOSEN IN SMALL INCREMENTS IN A CRISS-CROSS PATTERN. KEEP COVER SQUARE DURING REMOVAL.
5. REMOVE COVER. IT IS LIKELY YOU WILL NEED TO USE A RUBBER MALLET FOR ASSISTANCE.



6. RE-INSTALL (12) PRESSURE PLATE NUTS ON STANDS FINGER TIGHT. THIS PREVENTS SHIM LOSS.
7. DISASSEMBLE CLUTCH. (3) FLOATERS, (4) DISCS
8. INSTALL FLYWHEEL. TORQUE ALL FLYWHEEL BOLTS TO 101 FT LBS WITH 242 BLUE LOCKTITE.
9. INSTALL REAR LOADING ALIGNMENT TOOL IN THE PILOT BEARING.



10. INSTALL DISCS WITH HUB FACING TRANSMISSION AS SHOWN IN PICTURE ABOVE.



11. INSTALL REMAINING FLOATERS AND DISCS IN ALTERNATING ORDER, ALIGNING THE BLACK PAINT MARKS AS YOU GO.

12. REMOVE (12) PRESSURE PLATE NUTS. INSTALL PRESSURE PLATE ON STANDS, MAKING SURE TO ALIGN THE BLACK PAINT MARKS.
13. ADD A SMALL AMOUNT OF ANTI-SEIZE ON THE STAND BOLTS. TIGHTEN PRESSURE NUTS IN A CRISS-CROSS PATTERN MAKING SURE TO KEEP COVER AS EVEN AS POSSIBLE. TORQUE NUTS TO 50 FT LBS.
14. REMOVE ALIGNMENT SPLINE. IF THE SPLINE IS TIGHT IN THE CLUTCH, WITH YOUR RUBBER Mallet, TAP THE END OF THE ALIGNMENT SHAFT SIDE TO SIDE AND TOP TO BOTTOM UNTIL SHAFT MOVES IN AND OUT FREELY.
15. INSTALL BELLHOUSING ON ENGINE. SEE BELLHOUSING INSTRUCTIONS.
16. INSTALL THROW OUT BEARING ON FORK. MOVE FORK FORWARD TO CONTACT FINGERS ON PRESSURE PLATE. CENTER THROW OUT BEARING ON FINGERS. (ALIGNMENT SPLINE WORKS GREAT FOR THIS)
17. INSTALL TRANSMISSION
18. HYDRAULIC SLAVE CYLINDER ADJUSTMENT

**VERY IMPORTANT**



- A. HOLD ALUMINUM ARM FORWARD AGAINST PRESSURE PLATE FINGERS
- B. WHILE HOLDING ALUMINUM ARM FORWARD. BY HAND, EXTEND SLAVE CYLINDER TOWARD REAR OF TRUCK. ADJUST REAR ADJUSTING EYE UNTIL PIN WILL INSTALL FREELY.



- C. DEPRESS CLUTCH PEDAL FULLY. RELEASE CLUTCH PEDAL, GRAB TOP OF ALUMINUM ARM AND EXTEND THE SLAVE CYLINDER TO THE REAR OF THE TRUCK. ARM SHOULD NOT MOVE MORE THAN 1/8" TOWARD REAR OF TRUCK. IF YOU HAVE EXCESS MOVEMENT, TIGHTEN REAR ADJUSTING EYE AND RECHECK. IF CLUTCH IS PROPERLY ADJUSTED, PIN SHOULD BE FREE AFTER DEPRESSING & RELEASING CLUTCH PEDAL.

**NOTE:** ARM CANNOT MOVE MORE THAN 1/8" OR IT WILL NOT RELEASE PROPERLY

19. INSTALL SLAVE CYLINDER WASHERS, RETAINER CLIPS AND SPRING.

**20. MINOR CLUTCH ADJUSTMENT**

AS YOUR CLUTCH WEARS, THE PRESSURE PLATE FINGERS WILL RAISE. THIS WILL REMOVE NEEDED FREE-PLAY ON THROW OUT BEARING.

AFTER EVERY RUN, DEPRESS & RELEASE CLUTCH. IF PIN IS TIGHT, REMOVE THE PIN AND LOOSEN REAR ADJUSTING EYE, APPROXIMATELY ONE (1) TURN. CHECK FOR PROPER ARM MOVEMENT AFTER EACH ADJUSTMENT.

**21. MAJOR CLUTCH ADJUSTMENT**

THIS ADJUSTMENT IS NECESSARY ONCE YOU HAVE TURNED THE REAR ADJUSTING EYE OUT APPROXIMATELY 15 TURNS.

THERE IS NO WAY OF SAYING HOW MANY HOOKS YOU WILL GET BEFORE THIS BECOMES NECESSARY AS IT IS DEPENDENT ON YOUR DRIVING STYLE.

- A. REMOVE TRANSMISSION
- B. REMOVE BELLHOUSING
- C. MEASURE CLUTCH BEFORE DISASSEMBLY

1. THIS IS DONE BY INSERTING A DIAL CALIPER INTO THE SMALL HOLE IN THE TOP OF THE PRESSURE PLATE.



2. **NEW CLUTCH HEIGHT MEASURES 1.895" - 1.905"**

EXAMPLE: IF YOUR CLUTCH MEASURES 1.935", YOU WILL NEED TO REMOVE APPROXIMATELY .035" IN SHIMS FROM EACH STAND. THE SHIMS ARE .015, .030 AND .050 THICK. MIX AND MATCH SHIM REMOVAL TO GET IT BACK TO "NEW" HEIGHT (1.895" - 1.905")

**ALL STANDS MUST BE SHIMMED THE SAME.**

3. **INSPECT ALL DISCS & FLOATERS, REASSEMBLE CLUTCH**

- D. REINSTALL CLUTCH
- E. REINSTALL BELLHOUSING
- F. REINSTALL TRANSMISSION
- G. READJUST HYDRAULICS