

CLUTCH INSTALLATION TIPS

14"-2 Plate and 15.5"-2 Plate Spicer Style Clutches

This guide is designed to help insure that the proper dimensional aspects of the flywheel, clutch assembly and other critical measurements are adhered to when installing 14"-2 Plate and 15.5"-2 Plate clutches. Failure to follow these guidelines will most likely lead to improper clutch function and significantly decreased clutch life expectancy.

Please read these guidelines before installing this clutch.
The improper installation of this clutch will automatically void any warranty.

These guidelines are only a portion of the procedures that need to be followed during a clutch installation. Please refer to the manufacturers complete instructions for the detailed steps required for proper clutch installation.

STEP 1

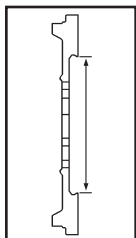
Check to insure that the discs supplied with this

clutch are correct for this application by verifying the disc retainer size and spring quantity. Flywheel counterbore sizes will dictate the size of disc that should be used in this application. Make sure the torque rating of this clutch meets or exceeds the engine's generated torque. (Refer to chart below.)

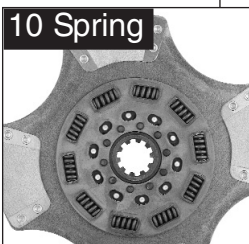
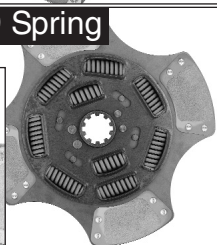
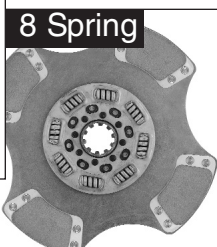
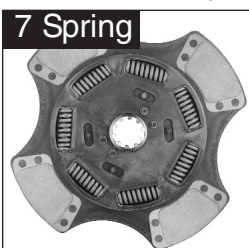
Disc Spring Qty.	Required Flywheel Counterbore "A"
7	9.75"
8	7.25"
9	9.75"
10	8.56"

Example: Do not use an 8 spring disc in a flywheel with a 9.75" counterbore.

Flywheel Counterbore Measurement



Disc Spring Quantity Examples

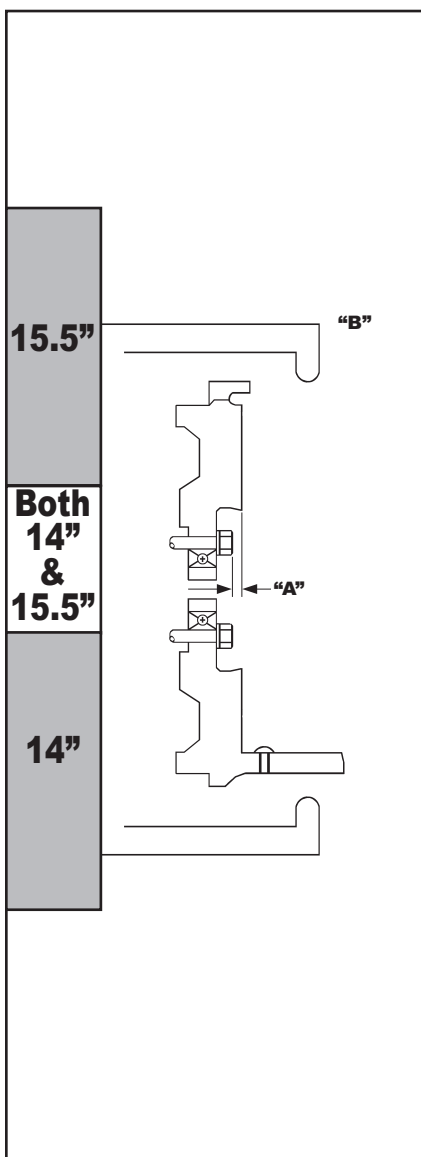


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STEP 2 Flywheel Preparation



Dimension "A"

A minimum distance of 5/16" must be maintained between the flywheel friction surface and the flywheel-to-crankshaft mounting bolts.

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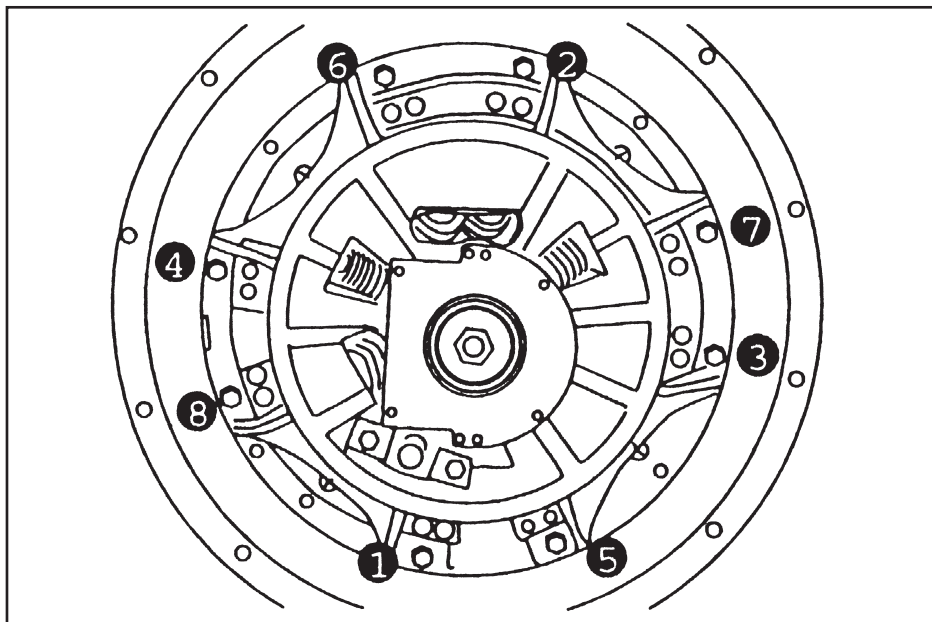
STEP 3 **During Clutch Installation**

14" Clutches

- Grade 5 or better mounting bolts
- Lockwashers
- Install mounting bolts finger tight
- Start with bolt in lower left position and use criss-cross tightening sequence
- Progressively tighten to final torque of 25-35 lbs. ft. (34-47 N.m.)

15.5" Clutches

- Grade 5 or better mounting bolts
- Lockwashers
- Install mounting bolts finger tight
- Start with bolt in lower left position and use criss-cross tightening sequence
- Progressively tighten to final torque of 40-50 lbs. ft. (54-68 N.m.)

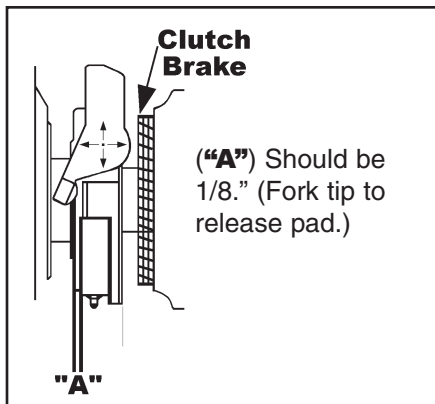


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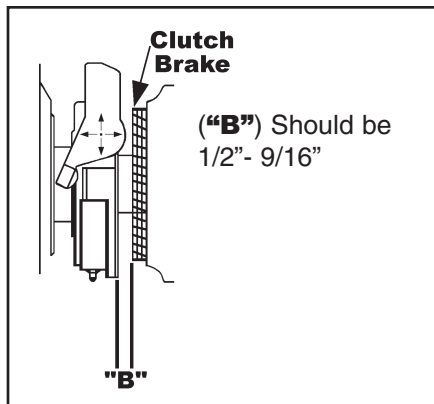
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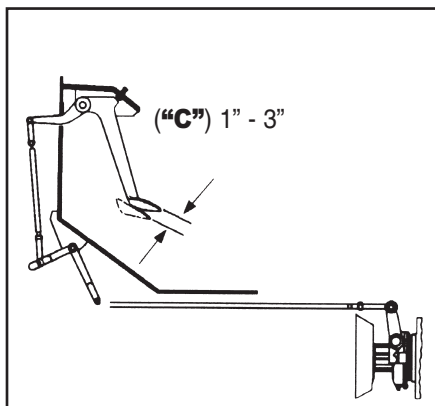
STEP 4 Final Adjustments



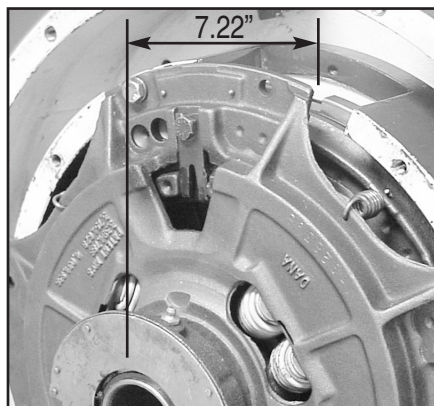
"A" - 1/8" between release fork and wear pad on release bearing.



"B" - 1/2" - 9/16" between release bearing friction surface and clutch brake.



"C" - Maintaining dimensions "A" and "B" should provide 1" - 3" of pedal free travel (required).



"D" - Overall clutch measurement should be 7.22" from the friction surface of the flywheel to the release bearing friction surface.

Haldex Commercial Vehicle Systems



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Proper Installation & Adjustment of Angle Spring Clutches

Step 1: Install Clutch on Flywheel and Remove Shipping Blocks (A)

Check Dimension "A", if less than 3/8"...

- Pot style flywheel improperly machined
- Center plate incorrect thickness
- Missing disc
- Clutch cover incorrectly set up from factory

Check Dimension "A", if greater than 5/8"...

- Pot style flywheel improperly machined
- Center plate binding
- Center plate incorrect thickness
- Binding or incorrectly installed disc
- Incorrect diameter disc hub for flywheel
- Clutch cover incorrectly set up from factory

If dimension "A" is within limits; go to step 2, if not; remove clutch & make corrections

Step 2: Install Transmission Adjust Clutch Cover & Linkage

Dimension "B"

- Adjust clutch cover adjustment ring to obtain between 1/2" - 9/16"

Dimension "C"

- Adjust linkage to obtain between 1/16" - 1/8"

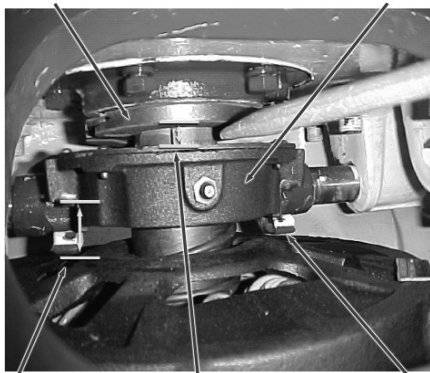
If dimensions "B" and "C" are within limits; the clutch has been properly adjusted. If clutch fails to operate correctly, remove and check for conditions listed above in step 1.

Dimension "A"



Clutch Brake

Release Bearing



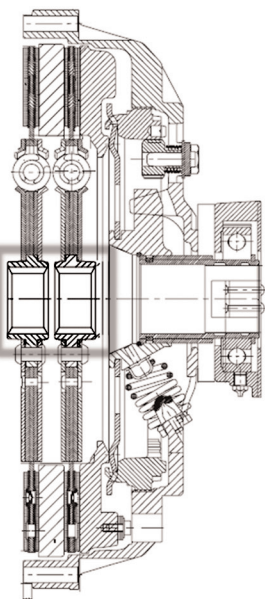
Dimension
"C"

Dimension
"B"

Release
Fork

Clutch Disc Installation Guidelines

7 Spring

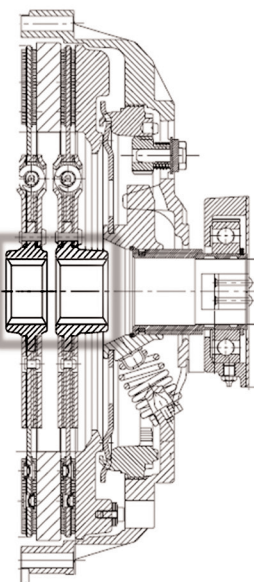


- Please see disc installation instructions on the disc – Laser marking or white sticker

- The pressure plate and flywheel side discs are identical in a 7 spring clutch kit

- Short side hub of both discs face the intermediate plate (center plate)

8 & 10 Spring



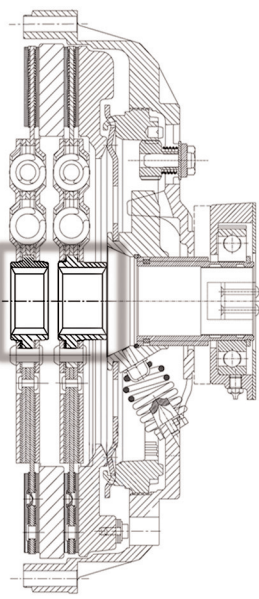
- Please see disc installation instructions on the disc – Laser marking or white sticker

- Short side hub of both discs face the intermediate plate (center plate)

- The longest hub faces the pressure plate

- Flywheel side disc – the longer side of the disc faces the flywheel

9 Spring



- Please see disc installation instructions on the disc – Laser marking or white sticker

- The longest hub faces the pressure plate.

- Flywheel side disc – the shorter side of the disc faces the flywheel

- The 9 spring disc orientation is unique as there is more room available on the flywheel side

CONSEJOS PARA LA INSTALACIÓN DE EMBRAGUES

Embragues de 14"-2 platos y 15,5"-2 platos tipo Spicer

Esta guía se ha elaborado con el fin de asegurar que se cumplen los requisitos de dimensiones del volante, ensamblaje del embrague y de otros componentes críticos al instalar embragues de 14"-2 platos y embragues de 15,5"-2 platos. Si no se siguen las siguientes recomendaciones, el embrague no funcionará del modo correcto y periodo de vida se acortará.

Leas las siguientes instrucciones antes de instalar este tipo de embrague. Si este embrague no se instala del modo correcto se anulará la garantía automáticamente.

Estas instrucciones son solo una parte de todos los procedimientos que son necesarios realizar para instalar un embrague. Para realizar una instalación correcta del embrague, deberá consultar todas las instrucciones proporcionadas por el fabricante.

PASO 1

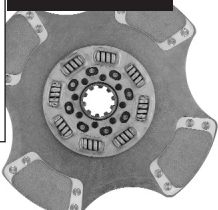
Compruebe y asegúrese de que los discos suministrados son los correctos para este tipo de aplicación. Para hacerlo compruebe el tamaño del retenedor de disco y la cantidad de resortes que se suministran. Los tamaños de agujero del volante determinarán el tamaño de los discos que deberán utilizarse en esta aplicación. Asegúrese de que el momento torsional de este embrague cumple o excede el momento torsional generado por el motor (consulte el cuadro que se proporciona a continuación).

Ejemplos de la Cantidad Resortes Disco

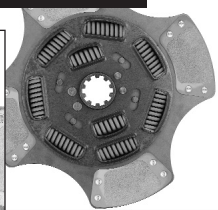
7 resortes



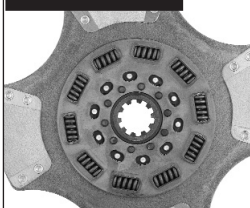
8 resortes



9 resortes



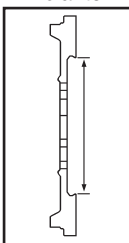
10 resortes



Cantidad Resortes Disco	Agujero "A" de volante requerido
7	9.75"
8	7.25"
9	9.75"
10	8.56"

Ejemplo: No utilice un disco de 8 resortes en un volante con un agujero de 9,75"

Medida del agujero del volante



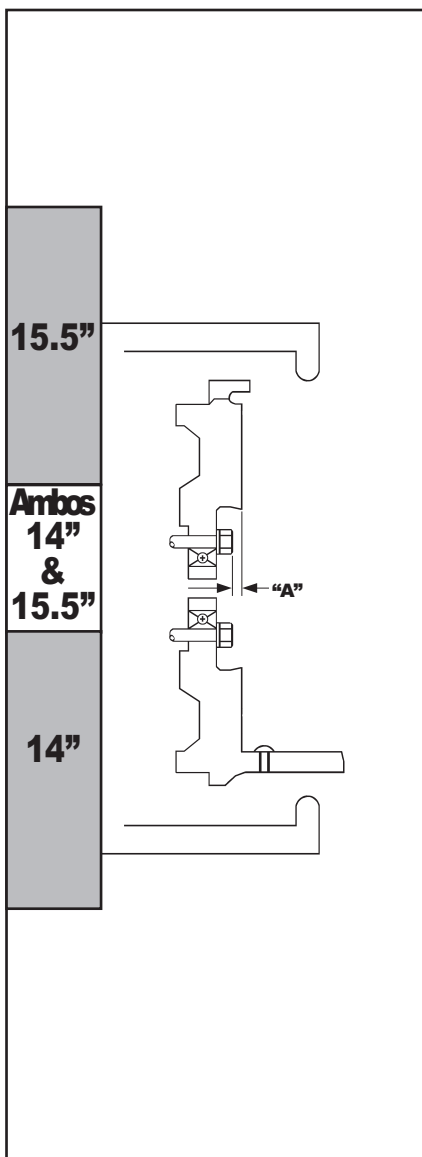
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PASO 2 Preparación del Volante

Advertencia: No utilice volantes que posean más de 0,060" de masa despegada de la superficie de fricción



Dimensión "A"

Se debe mantener una distancia mínima de 5/16" entre la superficie de fricción del volante y los pernos de montaje del cigüeñal al volante.

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Embragues de 14"-2 platos y 15,5"-2 platos tipo Spicer

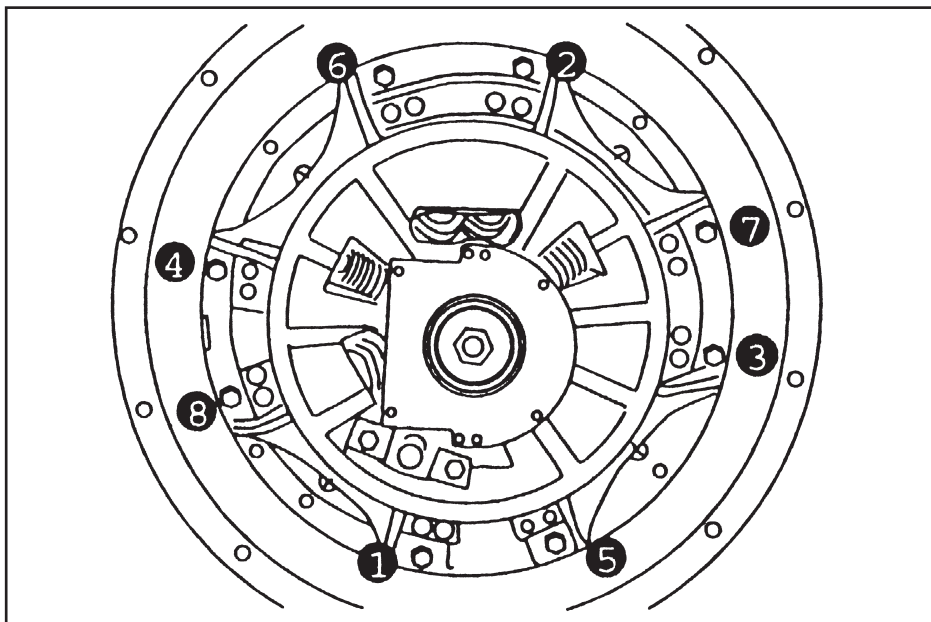
PASO 3 Durante la instalación del embrague

Embragues de 14"

- Pernos de montaje de grado 5 o mejores
- Arandelas de bloqueo
- Instale los pernos de montaje y apriete los a mano
- Comience con el perno que hay en la parte izquierda inferior y utilice una secuencia de apriete cruzada
- Apriete de forma progresiva hasta un par de apriete final de 25-35 pies libras (34-47 N.m.)

Embragues de 15,5"

- Pernos de montaje de grado 5 o mejores
- Arandelas de bloqueo
- Instale los pernos de montaje y apriételes a mano
- Comience con el perno que hay en la parte izquierda inferior y utilice una secuencia de apriete cruzada
- Apriete de forma progresiva hasta un par de apriete final de 40-50 pies libras (54-68 N.m.)

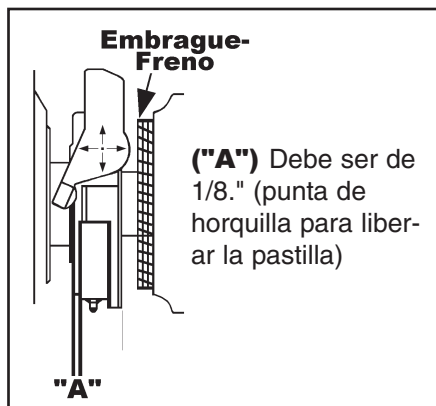


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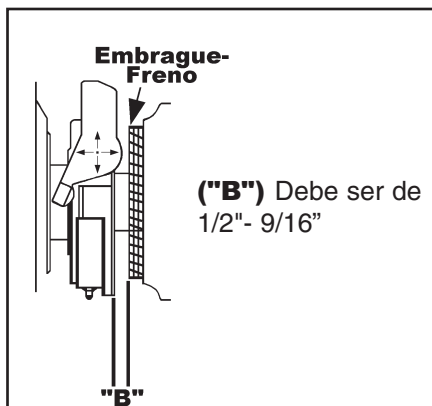
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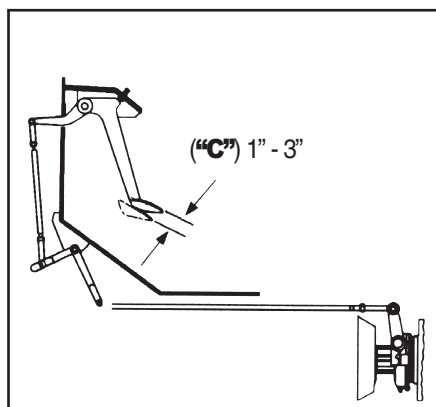
PASO 4 Ajuste Final



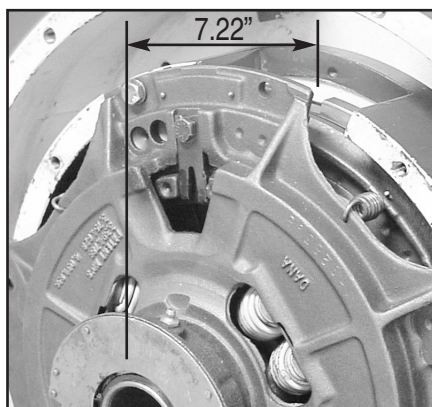
"A" - Distancia de 1/8" entre la horquilla de desembrague y la pastilla de desgaste en el cojinete de desembrague.



"B" - Distancia de 1/2" - 9/16" entre la superficie de fricción del cojinete de desembrague y el embrague-freno.



"C" - Si se mantienen "A" y "B" distancias, el recorrido libre del pedal será de entre 1" y 3" (requerido).



"D" - La distancia general del embrague debe ser de 7,22" desde la superficie de fricción del volante a la superficie de fricción del cojinete de desembrague.

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