

# FORD E4OD, 4R100 & 5R110 TORQUE CONVERTER APPLICATION GUIDE



**All E4OD, 4R100 & 5R110 Converters Are  
CRITICAL CORES**

**DACCO**  
TRANSMISSION PARTS

PO BOX 2789 • COOKEVILLE, TN 38502 • 931-528-7581 • 800-443-2226  
741 DACCO DRIVE • COOKEVILLE, TN 38506

# FORD E4OD, 4R100 & 5R110 TORQUE CONVERTER CONSOLIDATION & APPLICATION GUIDE

<b>PART NUMBER/DESCRIPTION</b>	<b>RATED</b>	<b>MODIFICATIONS</b>	<b>APPLICATIONS</b>	<b>REPLACES</b>
<b>F59D</b> 4 STUD LOW STALL 1-CLUTCH LIGHT-DUTY NON-TURBO DIESEL/GAS	◆	NO MODIFICATIONS STANDARD CATEGORY	E4OD-4R100, 105K 4.9L, 5.4L SC, 6.8L & 7.5 GAS OR 7.3L DIESEL (Light Duty)	F59 F59LS
<b>F59DO</b> 4 STUD LOW STALL 1-CLUTCH NON-TURBO DIESEL LONG STUD	◆	NO MODIFICATIONS STANDARD CATEGORY	E4OD-4R100, 105K 7.3L DIESEL (Light Duty)	SUB. F59D FOR EARLY F59DO
<b>HD3686</b> 4 STUD LOW STALL 1-CLUTCH LT-DUTY NON-TURBO DIESEL/GAS	◆◆	BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 105K 4.9L, 5.4L SC, 6.8L & 7.5 GAS OR 7.3L DIESEL (Light Duty)	3686, 3686D 3686DO 3686LS
<b>HD3696</b> BILLET LID L/S 1-CLUTCH 4 STUD LT-DUTY GAS/DIESEL NOT FOR TURBOCHARGED APPLICATIONS	◆◆◆ TURBINE MODIFICATIONS	BRAZED IMPELLER OR 7.3L DIESEL (Light Duty) BILLET COVER	E4OD-4R100, 105K 4.9L, 5.4L SC, 6.8L & 7.5L GAS 3696DO	3696 3696D
<b>SHD3686-4-2LS</b> 4 STUD EXTRA LOW STALL MULTI-CLUTCH GAS/DIESEL	◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 95K 7.5L GAS & 7.3L DIESEL APPLICATIONS	HD3686-4-2LS
<b>HD3686-4-2</b> LOW STALL 4 STUD MULTI CLUTCH	◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 105K 7.5L GAS & 7.3L DIESEL APPLICATIONS	3686-4-2
<b>SHD3696-4-2LS</b> BILLET LID EXTRA LOW STALL 6 STUD MULTI CLUTCH	◆◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 95K 7.5L GAS & 7.3L DIESEL APPLICATIONS	HD3696-4-2LS
<b>HD3696-4-2</b> BILLET LID LOW STALL 4 STUD MULTI CLUTCH BILLET COVER	◆◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 105K 4.9L, 5.4L SC, 6.8L & 7.5 GAS OR 7.3L DIESEL	3696-4-2
<b>F59HS</b> 4 STUD HIGH STALL	◆	NO MODIFICATIONS STANDARD CATEGORY	E4OD-4R100, 140K 5.0L, 5.4L & 5.8L GAS	
<b>HD3686HS</b> 4 STUD HIGH STALL GAS SINGLE PLATE CLUTCH	◆◆	BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 140K 5.0L, 5.4L & 5.8L GAS	3686HS
<b>HD3696HS</b> BILLET LID SINGLE CLUTCH 4 STUD HIGH STALL	◆◆◆	BRAZED IMPELLER TURBINE MODIFICATIONS BILLET COVER	E4OD-4R100, 140K 5.0L, 5.4L & 5.8L GAS	3696HS
<b>HD3686-4-2HS</b> 4 STUD HIGH STALL MULTI-CLUTCH GAS/DIESEL	◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 140K 5.0L, 5.4L & 5.8L GAS	3686-4-2HS
<b>HD3696-4-2HS</b> BILLET LID HIGH STALL 4 STUD MULTI CLUTCH	◆◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER BILLET COVER 7.3L DIESEL or	E4OD-4R100, 140K 5.0L, 5.4L, 5.8L 6.8L & 7.5L GAS OTHER CUSTOM APPLICATIONS	
<b>F59-6D</b> 6 STUD LOW STALL 1-CLUTCH LT-DUTY NON-TURBO DIESEL/GAS	◆	NO MODIFICATIONS STANDARD CATEGORY	E4OD-4R100, 105K 6.8L & 7.5L GAS or 7.3L DIESEL APPLICATIONS	F59-6 F59-6HS 3686-6
<b>F59-6DO</b> 6 STUD LOW STALL 1-CLUTCH EARLY NON-TURBO DIESEL LONG STUD	◆	NO MODIFICATIONS STANDARD CATEGORY	E4OD-4R100, 105K 7.3L DIESEL (LIGHT DUTY)	3686-6DO SUB. F59-6D FOR F59-6DO
<b>HD3696-6</b> BILLET LID SINGLE CLUTCH 6 STUD LOW STALL NON-TURBO DIESEL/GAS	◆◆◆	BRAZED IMPELLER TURBINE MODIFICATIONS BILLET COVER 7.3L DIESEL APPLICATIONS (Light Duty)	E4OD-4R100, 105K 6.8L & 7.5L GAS or	3696-6 3696-6DO
<b>SHD3686-6-2LS</b> EXTRA LOW STALL 6 STUD MULTI CLUTCH 95K	◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 95K 7.5L GAS & 7.3L DIESEL APPLICATIONS	3686-6-2LS HD3686-6-2LS
<b>HD3686-6-2</b> LOW STALL 6 STUD MULTI CLUTCH	◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 105K 6.8L & 7.5L GAS or 7.3L DIESEL APPLICATIONS	3686-6-2
<b>SHD3696-6-2LS</b> BILLET LID EXTRA LOW STALL 6 STUD MULTI CLUTCH 95K	◆◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 95K 7.5L GAS & 7.3L DIESEL APPLICATIONS	3696-6-2LS HD3696-6-2LS
<b>HD3696-6-2</b> BILLET LID LOW STALL 6 STUD MULTI CLUTCH	◆◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER BILLET COVER 7.3L DIESEL APPLICATIONS TURBINE MODIFICATIONS	E4OD-4R100, 105K 6.8L & 7.5L GAS or	3696-6-2
<b>F59-6HS</b> HIGH STALL 6 STUD	◆	NO MODIFICATIONS STANDARD CATEGORY	E4OD-4R100, 140K 5.0L, 5.4L & 5.8L GAS or OTHER CUSTOM APPLICATIONS	
<b>HD3686-6-2HS</b> HIGH STALL 6 STUD MULTI CLUTCH	◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER TURBINE MODIFICATIONS	E4OD-4R100, 140K 5.0L, 5.4L, 5.8L 6.8L & 7.5L GAS 7.3L DIESEL OR CUSTOM APPLICATIONS	3686-6-2HS
<b>HD3696-6-2HS</b> BILLET LID HIGH STALL 6 STUD MULTI CLUTCH	◆◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER BILLET COVER 7.3L DIESEL OR	E4OD-4R100, 140K 5.0L, 5.4L, 5.8L 6.8L & 7.5L GAS CUSTOM APPLICATIONS	
<b>HD3687-6-2</b> 6.0L DIESEL 5R110 EXTRA LOW STALL 6 STUD MULTI CLUTCH 95-K	◆◆◆◆	MULTI CLUTCH BRAZED IMPELLER BLADES TURBINE MODIFICATIONS	5R110, 95K 6.0L DIESEL APPLICATIONS	



**F59D (Low Stall 105K) E4OD - 4R100**

4 MOUNTING STUDS, LOW STALL, SINGLE PLATE L/U CLUTCH,  
NOT INTENDED FOR TURBOCHARGED APPLICATIONS

4.9L, 5.4L SC, 6.8L & 7.5L GAS or 7.3L DIESEL (Light-Duty)

F59D Replaces part numbers F59, F59 L/S, 3686, 3686D,  
3686DO & 3686 L/S

F59DO Early Extended Studs, Limited Availability



**SHD3686-4-2LS E4OD - 4R100  
(EXTRA Low Stall 95K)**

4 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
7.5L Gas & 7.3L DIESEL APPLICATIONS

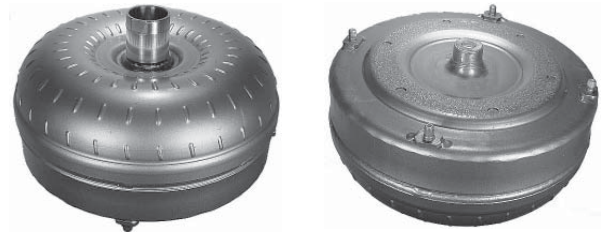
Limited Availability



**HD3686 (Low Stall 105K) E4OD - 4R100**

4 MOUNTING STUDS, LOW STALL, SINGLE PLATE L/U CLUTCH,  
4.9L, 5.4L SC, 6.8L & 7.5L GAS or 7.3L DIESEL (Light-Duty)

HD3686 Replaces part numbers F59, F59 L/S,  
3686, & 3686 L/S



**HD3686-4-2 E4OD - 4R100  
(Low Stall 105K)**

4 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
7.5L Gas & 7.3L DIESEL APPLICATIONS

HD3686-4-2 Replaces part number 3686-4-2  
Limited Availability



**HD3696 (Low Stall 105K) E4OD - 4R100**

4 MOUNTING STUDS, LOW STALL, SINGLE PLATE LOCK-UP  
CLUTCH, BILLET COVER

NOT INTENDED FOR TURBOCHARGED APPLICATIONS  
4.9L, 5.4L SC, 6.8L & 7.5L GAS or 7.3L DIESEL (Light-Duty)

HD3696 Replaces part numbers F59, F59 L/S, F59 DO,  
3696, 3696D & 3696DO



**SHD3696-4-2LS E4OD - 4R100  
(EXTRA Low Stall 95K)**

4 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
BILLET COVER  
7.5L Gas & 7.3L DIESEL APPLICATIONS



**HD3696-4-2**      **E4OD - 4R100**  
**(Low Stall 105K)**

4 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
BILLET COVER  
6.8L & 7.5L Gas & 7.3L DIESEL APPLICATIONS

HD3696-4-2 Replaces part number 3696-4-2



**HD3696HS (High Stall 140K) E4OD - 4R100**

4 MOUNTING STUDS, HIGH STALL, SINGLE PLATE LOCK-UP  
CLUTCH, BILLET COVER  
5.0L, 5.4L & 5.8L GAS

HD3696HS Replaces part number 3696HS



**F59HS (High Stall 140K) E4OD - 4R100**

4 MOUNTING STUDS, HIGH STALL, SINGLE PLATE L/U CLUTCH,  
5.0L, 5.4L & 5.8L GAS

F59-6HS Six Mounting Studs, Custom Applications



**HD3686-4-2HS**      **E4OD - 4R100**  
**(High Stall 140K)**

4 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
5.0L, 5.4L & 5.8L GAS

HD3686-4-2HS Replaces part number 3686-4-2HS  
Limited Availability



**HD3686HS (High Stall 140K) E4OD - 4R100**

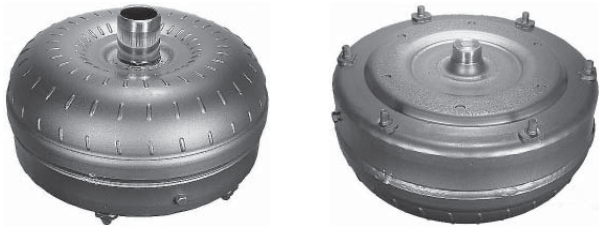
4 MOUNTING STUDS, HIGH STALL, SINGLE PLATE L/U CLUTCH,  
5.0L, 5.4L & 5.8L GAS

HD3686HS Replaces part number 3686HS



**HD3696-4-2HS**      **E4OD - 4R100**  
**(High Stall 140K)**

4 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
BILLET COVER  
5.0L, 5.4L, 5.8L, 6.8L & 7.5L GAS & 7.3L DIESEL or OTHER  
CUSTOM APPLICATIONS



**F59-6D (Low Stall 105K) E4OD - 4R100**

6 MOUNTING STUDS, LOW STALL, SINGLE PLATE L/U CLUTCH,  
NOT INTENDED FOR TURBOCHARGED APPLICATIONS  
6.8L & 7.5L GAS or 7.3L DIESEL (Light-Duty) APPLICATIONS

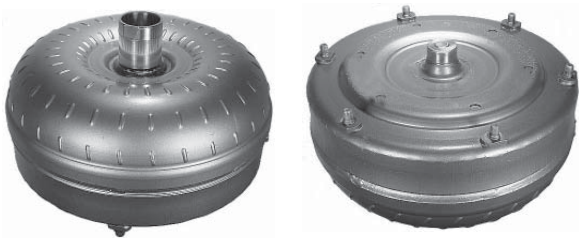
F59-6D Replaces part numbers F59-6



**SHD3686-6-2LS E4OD - 4R100  
(EXTRA Low Stall 95K)**

6 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
7.5L Gas & 7.3L DIESEL APPLICATIONS

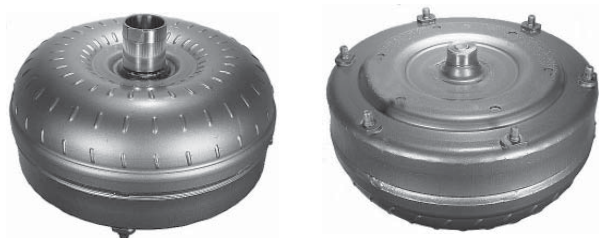
HD3686-6-2LS Replaces part number 3686-6-2LS



**F59-6DO (Low Stall 105K) E4OD - 4R100**

6 LONG MOUNTING STUDS, LOW STALL, SINGLE PLATE  
LOCK-UP CLUTCH,  
NOT INTENDED FOR TURBOCHARGED APPLICATIONS  
7.3L DIESEL (Light-Duty) APPLICATIONS

Early Extended Studs, Limited Availability



**HD3686-6-2 E4OD - 4R100  
(Low Stall 105K)**

6 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
6.8L & 7.5L Gas & 7.3L DIESEL APPLICATIONS

HD3686-6-2 Replaces part numbers 3686-6-2, 3686-62,  
3686-6 & 3686-6DO



**HD3696-6 E4OD - 4R100  
(Low Stall 105K)**

6 MOUNTING STUDS, LOW STALL, SINGLE PLATE LOCK-UP  
CLUTCH, BILLET COVER  
NOT INTENDED FOR TURBOCHARGED APPLICATIONS  
6.8L & 7.5L GAS or 7.3L DIESEL (Light-Duty)

HD3696-6 Replaces part numbers 3696-6 & 3696-6DO



**SHD3696-6-2LS E4OD - 4R100  
(EXTRA Low Stall 95K)**

6 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
BILLET COVER  
7.5L Gas & 7.3L DIESEL APPLICATIONS

HD3696-6-2LS Replaces part number 3696-6-2LS



**HD3696-6-2**

**E4OD - 4R100  
(Low Stall 105K)**

6 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
BILLET COVER  
6.8L & 7.5L Gas & 7.3L DIESEL APPLICATIONS

HD3696-6-2 Replaces part number 3696-6-2



**HD-3687-6-2**

**5R110 WITH 6.0L DIESEL  
(EXTRA Low Stall 95K)**

6 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP

6.0L DIESEL APPLICATION



**HD3686-6-2HS**

**E4OD - 4R100  
(High Stall 140K)**

6 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
5.0L, 5.4L, 5.8L, 6.8L & 7.5L GAS & 7.3L DIESEL or OTHER  
CUSTOM APPLICATIONS

HD3686-6-2HS Replaces part numbers 3686-6-2HS

**F59-6HS** 6 STUD, HIGH STALL, SINGLE CLUTCH

**E4OD - 4R100 - 5R110 STALL SPEED INFORMATION**

<u>Engine</u>	<u>K-Factor</u>	<u>Min</u>	<u>Stall</u>	<u>Max</u>
5.4L	140 HS	2297		2725
5.4L SC	105 LS	1985		2380
5.4L 4V	140 HS	2274		2736
6.8L	105 LS	1907		2290
7.3L Diesel	105 LS	2049		2381

2003-UP 5R110

<u>Engine</u>	<u>K-Factor</u>	<u>Min</u>	<u>Max</u>
6.0L Diesel	95 EX-LS	1968	2270



**BILLET COVER**

**HD SPECIFICATIONS**

TRANSMISSION APPLICATIONS:

E4OD, 4R100 & 5R110

ENGINE APPLICATION:

GAS, 6.0L & 7.3L DIESEL

BOLT PATTERN:

4 & 6 STUD  
(STANDARD 12" FORD)  
TORQUE SPEC. 26-30 FT. LB.

BRAZING:

BRAZED IMPELLER

IMPELLER HUB:

4130 CrMo

BEARING & RACES:

NEW - OEM QUALITY

THRUST WASHERS:

NEW

TURBINE HUB:

HEAVY-DUTY, RE-ENFORCED BLADES

MULTI-CLUTCH LOCK-UP:

TWO PLATE  
THREE FRICTION ELEMENTS

COVER:

MACHINED BILLET IN HD3696 FAMILY



**HD3696-6-2HS**

**E4OD - 4R100  
(High Stall 140K)**

6 MOUNTING STUDS, MULTI-CLUTCH LOCK-UP  
BILLET COVER  
5.0L, 5.4L, 5.8L, 6.8L & 7.5L GAS & 7.3L DIESEL or OTHER  
CUSTOM APPLICATIONS