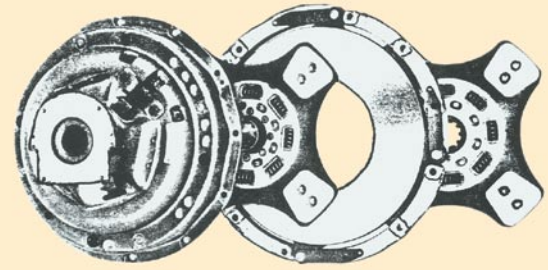
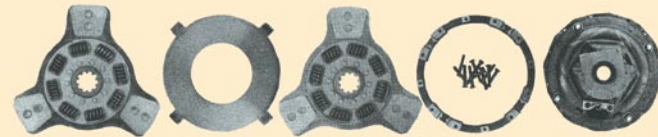


The Answer

D&W is currently offering the solution to your former and existing headaches with Spicer-type Stamped Steel clutches with the aluminum ring (part# MU129044-26CR and/or 107237-10).



Now we can offer this replacement upgrade clutch which utilizes a free-floating center plate with a steel ring. We've eliminated the aluminum ring with the strapped-on center plate which is the true cause of release problems with this clutch. Our new part number is MU129044-26CR and here it is:



- ▶ 20% more clutch life because the new center plate with the steel adapter ring allows for the usage of thicker friction material on the drive discs. Fewer clutch replacements equal less downtime!
- ▶ No more poor release! Free-floating center plates work just like the ones used in Spicer-type cast-iron clutches.
- ▶ Available new or remanufactured, with huge long term cost savings to the owner.



Light-Duty Clutches

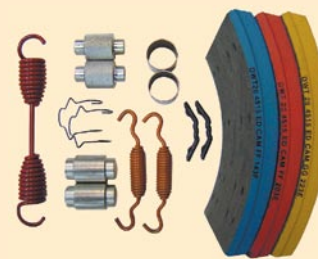
To supply the light-duty clutch market (10 to 13 inch), D&W offers its trade-marked brand clutch kit called "SURE SHIFT", which consists of an *OE quality* clutch assembly, disc and bearing. Daikin, Luk, Sachs, Valeo, and Federal Mogul are the among the clutch component suppliers we utilize.



D&W Heavy Duty Brake Shoes



D&W offers an expansive relined brake shoe program with select new part numbers for the heavy-duty truck market in our delivery area. D&W brake friction is sold in 54 countries and is OE approved in 36 countries. D&W has been an authorized reline center by Carlisle, Abex, Dana Spicer, and Brake Pro. D&W and Marathon are our most expansive lines. All high-volume shoe cores are stretch gauged and bulk quantity shoes are riveted with stroke and pressure measured, hydraulic, computerized riveting machines. Our brake shop also performs R&R services for riveted brake bands up to 6" wide using molded or woven non-asbestos lining. We can also help customers with bonded bands and small shoes requiring special friction materials.



DWT18	White	=	20k
DWT20	Blue	=	20k
DWT23	Red	=	23k
DWT25	Yellow	=	25k

D&W Product/Technical Support:
410-235-8829

Friction Materials

Their Use and Applications

Introduction

Friction materials as a whole have changed as much as horse power and torque ratings have changed in the past few years. Listed below is a short informational guide to friction material. Each engine, driver, and driving condition is unique. D&W can customize clutches by plate load, torque capacity, and application to optimize your clutch service. D&W has solved problems for U.P.S., local BFI, and Waste Management locations by switching them to a kevlar and ceramic button combination unit, which U.P.S. now demands at the OE level. We can help you too.

Kevlar/Aramid

The kevlar/aramid fiber material that D&W utilizes is developed and manufactured in the U.S. When used in the proper applications, it can outlast other friction materials two to five times. Kevlar provides the pulling capabilities of ceramic button materials along with the smooth engagement properties of an organic facing. By its nature, kevlar allows for smooth clutch engagement which allows for prolonged life of universal joints, differential gears, and other drive line components. The major cost benefit savings of kevlar, aside from less downtime, is that all of the friction wear surfaces will show little or no wear compared to clutches using other friction materials. A truck originally equipped with a kevlar clutch, and kevlar replacement units, may never need the flywheel replaced!

Ceramic

Ceramic button-style clutch facings are very durable and have the unique ability to grab better as it heats. Organic facings tend to fade as they heat. A ceramic button clutch is appropriate for hard-working applications and has traditionally held up to expectations. However, there are downsides to ceramic material. First, this clutch is either in or it's out; there is no soft engagement. Second, it is as hard as the material that it mates against, which means that the pressure plate, center plate, and flywheel wear at the same rate as the ceramic facing. This high rate of wear often means that the flywheel will wear out well before the engine or truck does. Therefore, there is an additional expense associated with using a ceramic button clutch. For those customers who work their trucks the hardest and carry the heaviest loads, the ceramic friction clutch is still the best choice because it handles the heat better than any other friction material. D&W offers ceramic buttons made by SK Wellman and Miba, OE suppliers, which are made in western Europe. Ceramic button clutches are the preferred and recommended choice for dump trucks, refuse vehicles, off-road equipment, and heavy hauling in mountainous terrain such as logging and coal hauling.

Fibertuff

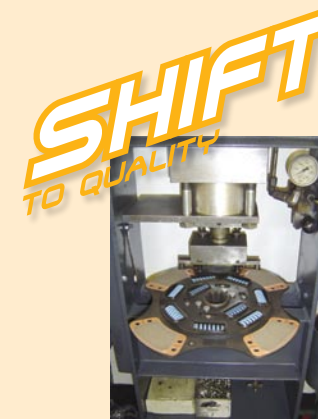
Fibertuff is a product designed to give the wear of a ceramic facing, yet have the engagement and disengagement qualities of an organic material. Fibertuff is a product of Canada and is intended to wear against its mating surfaces like organic material. Used primarily in the stamped steel and 14" cast units, this product offers greater life than organic material with many of the same qualities that organic friction has traditionally offered. Around-town delivery trucks and mid-range applications find that this product works best.

Carbotic

Carbotic, recently introduced by the manufacturer of Fibertuff, was designed to offer super smooth engagement, like both the organic and kevlar materials. In addition to smooth engagement, this product has excellent service longevity and the ability to handle high horse power and high torque requirements like the ceramic button, but without the harsh wear of the mating surfaces. This product is best utilized in heavy hauling vehicles such as quarry dump trucks which encounter steep grades where clutch slippage and high heat generation are probable. We have also used it in tractor pulls and truck racing vehicles.

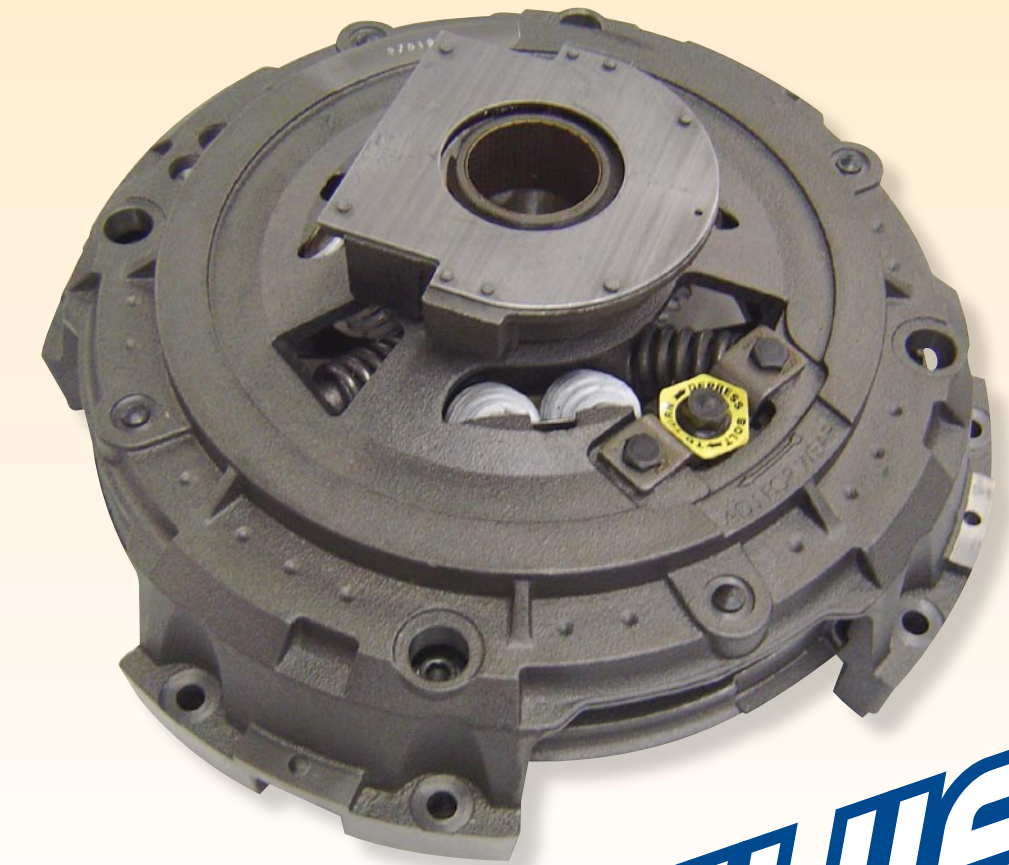
Organic

The basic organic disc has been in the industry for 50 plus years and has evolved considerably due to engine alterations as well as environmental issues. Organic facings were originally made with asbestos, but as health issues arose concerning the use of asbestos, it was phased out of the industry. Facings were then made of fiberglass and brass as its main ingredients. Varying ingredients by different manufacturers have caused brand loyalties to exist among rebuilders. D&W primarily uses FMC facings from the U.S. who also supplies Eaton Corp. An organic facing should be used in engines with low to medium horse power and torque where the clutch must be engaged and disengaged many times a day. This type of clutch is one of the smoothest engaging clutches in the industry today. Its downside is its short life span.



Clutch Specification

GUIDE to the Most Expansive Offering of New and Remanufactured Units for Heavy, Medium, and Light Duty Applications



SHIFT
TO QUALITY

D&W
CLUTCH AND BRAKE
S I N C E 1 9 8 0

Clutches ranging from one ton pickups to tractor trailers!

D&W's Product Offering

D&W's clutch product line includes remanufactured and **New Spicer-type clutches**, medium-duty clutches and original light-duty clutch kits (SURE SHIFT). We offer:

- ▶ **NEW** HD and dual-mass flywheels
- ▶ **NEW** Lipe push-type clutches
- ▶ **NEW** Angle-ring clutches
- ▶ **NEW** OE light-duty 10 to 13 inch SURE SHIFT clutch kits
- ▶ **NEW** solid flywheel conversion kits
- ▶ **NEW** flywheel housings
- ▶ **SELECT NEW** foreign clutches
- ▶ Any R&R unit (agricultural, industrial, off-road equipment, PTO and wet clutches, etc.)

We remanufacture units using genuine OEM specifications and our components are supplied by OE approved suppliers. All intermediate plates are new! All medium and light-duty clutch discs are new and we give our customers the choice of new or remanufactured discs for all heavy-duty applications. All matched units have clutch assemblies adjusted on a simulated flywheel. Due to our attention to details, and because we follow all the manufacturers' specifications to the letter, we feel that we offer the finest remanufactured clutch in the U.S. We have achieved a true warranty rate on remanufactured units of approximately 1/5 of 1% or about 1 out of every 500 units. Warranties of new units are even lower. Our one year or unlimited mileage warranty matches Eaton's current warranty. Failure to machine the flywheel will negate warranty. We also offer over 90 years of clutch remanufacturing experience for technical support and troubleshooting.

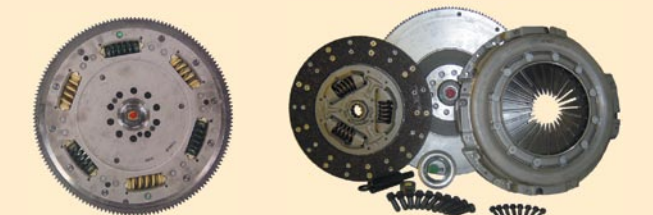
We stock many foreign clutches and we offer R&R services for all non-stocking items in a 24-48 hour window. Automotive clutches, flywheels, master and slave cylinders and clutch forks are obtainable through our suppliers. D&W also stocks both heavy-duty flywheels and dual-mass flywheels for Ford and GM lighter trucks. Our heavy-duty flywheels fit Caterpillar, Cummins, Detroit, Navistar and Mack engines.

New Flywheels and Flywheel Housings



Available for Caterpillar, Cummins, Detroit, Ford, Mack, and Navistar

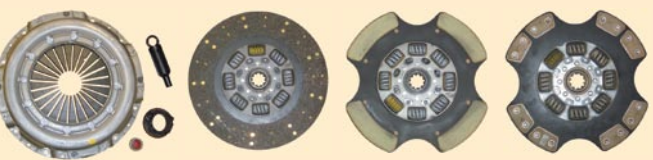
Dual Mass Flywheels and Conversion Kits



Ford and GM

Solid flywheels with HD clutch kits

Ford and Dodge Heavy Duty Upgrade Kits



Ford:	07-113HD	07-113CXL	07-113CB
Dodge: 6 speed	05-101	05-101CXL	05-101CB
5 speed	05-092HD	05-092CXL	05-092CB

New Angle Ring Type Clutches



For International, Freightliner, Isuzu, Hino and Mack Midliner.

New and Remanufactured Foreign Clutches



For Valeo, Isuzu, Mack Midliner, Hino, Mitsubishi, and UD.

15 1/2" CAST

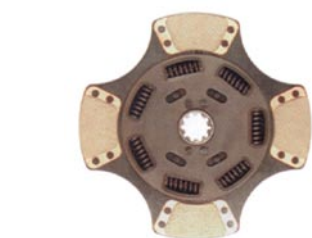
Horse Power Guideline

Engine Horse Power	Disc Torque Required
up to 425HP	1650
425 to 500HP	1860
500HP	2050

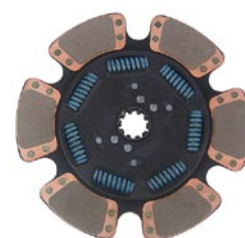
Check flywheel pilot bore diameter to assure disc accessibility.
Please review the flywheel pilot bore diameter guideline below.



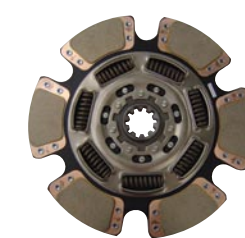
Available in
4000 pound plate load
3600 pound plate load
3200 pound plate load



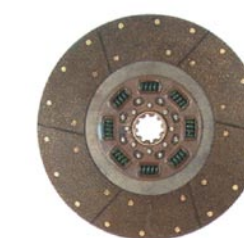
Type DCF-CO-FT
Spline 2" 10
Buttons 4 Ceramic
Springs 7
MU127597-76
MU128597-777*
SS108925-82B
Rated at 1650
*Rated at 1750 w/4000# plate load



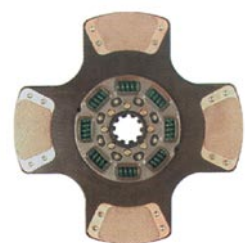
Type DCF-CO
Spline 2" 10
Buttons 6 Ceramic
Springs 7
MU128597-776
SS108925-82H
Rated at 1860



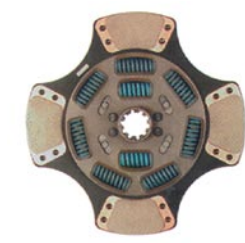
Type DCF-CO
Spline 2" 10
Buttons 6 Ceramic
Springs 7
MU128925-10
SS108925-25
Rated at 2050



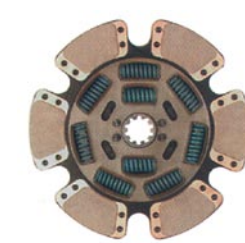
Type DOF-CO-FT
Spline 2" 10
Full Face Organic
Springs 8
MU127597-20
SS108391-82B
Rated at 1400



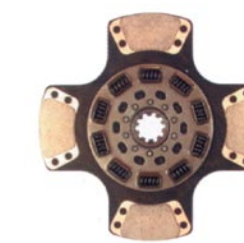
Type DCF-CO-FT
Spline 2" 10
Buttons 4 Ceramic
Springs 8
MU127597-26
SS108391-81B
Rated at 1400



Type DCF-CO-FT
Spline 2" 10
Buttons 4 Ceramic
Springs 9
MU127597-96
SS108935-51
*Mack only
Rated at 1650



Type DCF-CO-FT
Spline 2" 10
Buttons 6 Ceramic
Springs 9
MU128597-66
SS108935-91
*Mack only
Rated at 1860



Type DCF-CO-FT
Spline 2" 10
Buttons 4 Ceramic
Springs 10
MU127597-106*
MU128597-406**
SS108391-74B**
SS108391-93B**
*Rated at 1650 **Rated at 1750 w/4000# plate load



Type DCF-CO
Spline 2" 10
Buttons 6 Ceramic
Springs 10
MU128597-606
SS108391-93H
Rated at 1860

Part Number Suffixes

CO	Coaxial Spring
CR	Conversion Ring
DCF	Dampened Ceramic Facing
DKF	Dampened Kevlar/Aramid Facing
DOF	Dampened Organic Facing
FT	Free Travel
K	Kevlar
KS	Kevlar/Ceramic combo.
N	New
ND	New Disc
SD	Super Duty Set

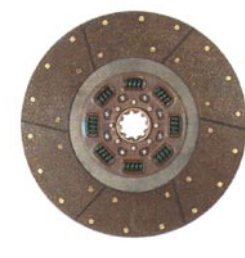
14" CAST



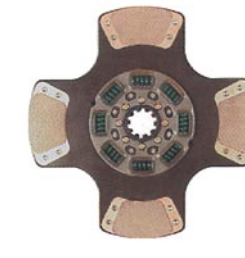
Available in
3600 pound plate load
3200 pound plate load
2800 pound plate load



Type DCF-CO-FT
Spline 2" 10
Buttons 4 Ceramic
Springs 8
MU127390-26
SS108034-61B
Rated at 1000



Type DOF-CO-FT
Spline 2" 10
Full Face Organic
Springs 8
MU127390-20
SS108034-82B
Rated at 1150



Type DCF-CO-SD-FT
Spline 2" 10
Buttons 4 Ceramic
Springs 8
MU127390-86
SS108050-59B
*Super Duty Set
Rated at 1400

14" STAMPED STEEL OR CAST



Available in
3200 pound plate load
2800 pound plate load



Dual Plate



Type DCF-CO-FT
Spline 1 3/4" 10
MU129044-26CR
MU129044-26NCR
MU129055-26CR
MU129055-26NCR
Buttons 3 Ceramic
Springs 8
Rated at 860
Cast Option
Spline 1 3/4" 10
EZN107237-10
EZN107342-11
Rated at 1000

Single Plate



Type DCF-CO-FT
Spline 1 3/4" 10
Buttons 3 Ceramic
Springs 8
MU127747-26
MU127747-26N
Rated at 620
Cast Option
EZN107683-5



Proper Clutch Selection

Today's trucks are equipped with high torque producing engines and are fitted with a clutch based on torque ratings and operating ranges. We are finding that many customers are not selecting the proper replacement clutch that contains the correct dampened disc to handle the torque capacity exhorated by the engine. **Please review the engine horse power guidelines above.**

Always replace a clutch with the highest torque rated disc that the flywheel ID will accommodate. *Please remember that misapplication is not a basis for warranty replacement!*

Flywheel ID 7.25"
8-SPRING

up to 1988

Flywheel ID 8.562"
10-SPRING

1985-1998

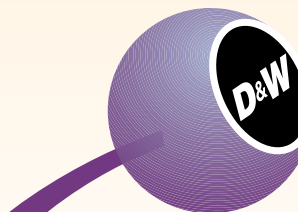
Flywheel ID 9.750"
6-SPRING
7-SPRING
9-SPRING*

1992 to present

*Mack applications only! Flywheel bolt interference will occur if these units are interchanged!



SHIFT
TO QUALITY



D&W
Clutch & Brake
2601 Sisson Street
Baltimore, MD 21211
Phone: 410 235-8829
Fax: 410 235-8862