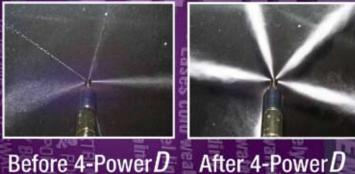


**Fouled Injector** 



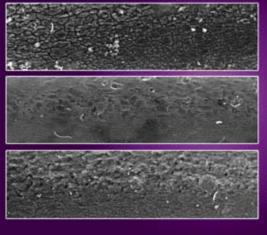
# 4-Power D - Diesel Fuel System Cleaner Dirty Piston





Before 4-PowerD

#### 4-Power® D - Diesel Fuel System Cleaner



Prior to use of 4-PowerD

After 4-Power D

After a 4 hour run without a fuel coditioner



## 4-Power® G - Gasoline Fuel System Cleaner

**Dirty Valve** 



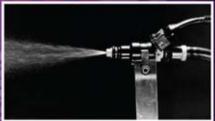


Before 4-PowerG After 4-PowerG

## 4-Power G - Gasoline Fuel System Cleaner

Fouled Injector



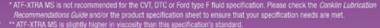


Before 4-Power G

After 4-Power G

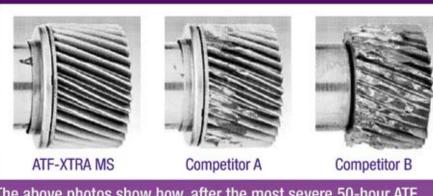
## **ATF-XTRA** *MS* - Full Synthetic Transmission Fluid

Aisin Warner AW-1**	DEXRON®-III H	MAN 339 V2	Texaco N402
Allison C-4	DEXRON® VI**	MAN 339 Z1	Toyota T-III
Allison TES-295	Esso LT 71141	MAN 339 Z2	Toyota T-IV
Allison TES-389	Ford MERCON®	MAN 339 Z3	Toyota WS (JWS 3324)**
Audi G 052 025-A2	Ford MERCON® V	Mazda ATF-M III	Voith 55.6335.XX (G607)
Audi G-052-162-A1	Ford MERCON® SP**	Mazda ATF-MV	Voith 55.6336.XX (G1363)
BMW 7045E	Ford MERCON® LV**	Mercedes Benz 236.1 / 236.2 / 236.5 / 236.6 / 236.7 / 236.9 / 236.10 / 236.11	Volvo 97340
BMW LA2634	Honda ATF-Z1	Mitsubishi Diamond SP-II	WW G 052 025-A2
BMW LT 71141	Hyundai SP-II & SP-III	Mitsubishi Diamond SP-III	WW G-052-162-A1
Chrysler ATF	Hyundai NWS-9638*	Nissan Matic-D	ZF TE-ML 03D
Chrysler ATF +2	Idemitsu K17	Nissan Matic-J	ZF TE-ML 04D
Chrysler ATF +3	JASO 1-A	Nissan Matic-K	ZF TE-ML 09
Chrysler ATF +4	JWS 3309	Shell 3403	ZF TE-ML 14A
DEXRON®	Kia SP-II	Shell LA2634	ZF TE-ML 14B
DEXRON®-II	Kia SP-III	Subaru ATF	ZF TE-ML 14C
DEXRON®-II D	MAN 339F	Texaco ETL-7045E	ZF TE-ML 16L
DEXRON®-III G	MAN 339 V1	Texaco ETL-8072B	ZF TE-ML 17C





#### **ATF-XTRA** *MS* - Full Synthetic Transmission Fluid



The above photos show how, after the most severe 50-hour ATF wear testing, ATF-XTRA MS protects better than the competition.





#### **Battalion**® - Parasynthetic Hydraulic Transmission Fluid

- John Deere J20 A/D, J21A, J14C, J14B (303 Fluid), Hy-Guard, Quatrol
- Massey Ferguson M-1127 A/B, M-1141 (Permatran III), M-1129A (Permatran), M-1135, M1110, M-1143
- Deutz-Allis 272843 (IPF821), 257541, 246634
- Komatsu Dresser B-006-001, B-06-002
- Case JIC-143, JIC-144, MS 1209, MS-1206 (Power Guard PTF), MS-1204/JIC-185, MS-1207 (HyTrans Plus), MS-3505 MS-1210/JIC-145 (TCH), MS-1205
- ZF TE-ML-03E, TE-ML-05, TE-ML-06
- White Q-1826, Q1766, Q-1722, Q-1705, Q-1766B, -1802, Type 55
- Renk Doromat 873, 874A, 874B
- Denison HF-0, HF-1, HF-2
- Allison C-2, C-3, C-4

- Sundstrand Hydrostatic Transmission
- Kubota (UDI & UDT Fluid)
- Steiger SEMS 17001
- Versatile 23M, 24M
- Landini
- . Hesston Fiat AF-87, Multi-F, Multi-G
- Caterpillar T0-2 (Does Not Meet T0-4)
- IHC B-6 (Hv-Tran), B-5
- Ford/New Holland M2S134 A/D, M2C86-B/C, M2C53-A/B, M2C48-A/B, M2C41-B, M2C43, M2C92-A, FNHA-2-C-201/200/200A
- Volvo VME, VCE WB-101
- . AGCO-Allis Power Fluid 821 & 821 XL
- Sperry-Vickers 35VQ25, M-2952-S, I-286-S, M-2950-S



#### **Diesel Plus® - Diesel Fuel Conditioner**



Wax crystals in a untreated Diesel fuel

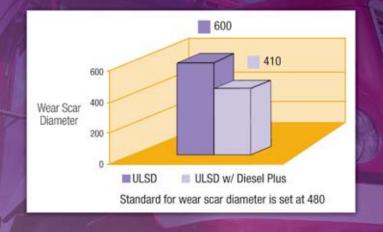


Wax crystals in Diesel fuel treated with Diesel Plus





#### Diesel Plus® - Diesel Fuel Conditioner





#### **Diesel Plus® - Diesel Fuel Conditioner**

Diesel Plus Sizes	Summer Treatment Rate	Winter Treatment Rate
12-3 oz. bottles	1 bottle to 30 gallons	2 bottles to 30 gallons
1 pint	150 gallons	75 gallons
1 gallon	1,200 gallons	600 gallons
5 gallons	6,000 gallons	3,000 gallons
55 gallons	66,000 gallons	33,000 gallons



#### **Fuel Mate Plus® - Gasoline Conditioner**

#### Fuel Mate Plus Treatment Rates

2 oz. to	1 gallon to	
20 gallons	1280 gallons	

1 pint to	5 gallon to		
60 gallons	6400 gallons		



#### Easily Mixes from a 16:1 to a 50:1 Ratio

	16.1	20:1	24:1	32:1	50:1
Gallons of gasoline	Ounces of oil to be added				
1	8	6	5	4	3
2	16	13	11	8	5
3	24	19	16	12	8
4	32	26	21	16	11
5	40	32	27	20	13
6	48	38	32	24	16



## **RAVE® - Rain Activated Vision Enhancer**



70 mph

35 mph



## Super Fluid® - Conventional Hydraulic Transmission Fluid

- John Deere J20 C/D, J21A, J14C, J14B (303 Fluid), Hv-Guard
- Massey Ferguson M-1127 A&B, M-1141 (Permatran III), M-1129A (Permatran), M-1135, M1110
- Deutz-Allis 272843 (IPF821), 257541, 246634
- Case JIC-143, JIC-144, MS 1206 (Power Guard PTF), MS-1204/JIC-185, MS-1207 (Hy-Trans Plus), MS-1210/JIC-145 (TCH), MS-1205
- White Q-1826, Q1766, Q-1722, Q-1705

- Allison C-4, C-3, C-2
- · Sundstrand Hydrostatic Transmission
- Kubota (UDI Fluid)
- Steiger
- Versatile
- Landini
- Hesston Fiat AF-87
- Caterpillar TO-2 (Does Not Meet TO-4)
- IHC B-6 (Hy-Tran), B-5
- Ford/New Holland M2S134 A, B, C or D, M2C53-A, M2C48-B, M2C41-B, 2-C-201/200



#### Oil Analysis - Additives

These elements are blended into the oil in different forms and quantities by the manufacturer. The additive package in an oil will vary, depending upon the type of oil.

Magnesium dispersant/detergent additive
Calcium dispersant/detergent additive
Barium dispersant/detergent additive

Phosphorus anti-wear additive
Zinc anti-wear additive
Molybdenum anti-wear additive



#### Oil Analysis

#### **Fuel Soot**

A result of blow-by or incomplete combustion. High levels may indicate combustion problems or overextended drain intervals.

#### Contaminant

These elements can be an indication of contamination from outside the system. The source and amount of contamination can be determined by comparison to a previous, non-contaminated sample of the same unit. Specific tests for some contaminants can supplement the analysis.



#### **Success Story**

Oil analysis is a key part of my vehicle's maintenance. For the last 105,000 miles I've pulled an oil sample and changed the filter about every 5000 miles adding in the 2 quarts I lose with the filter. My oil analysis show I'm good to continue and I see no reason to change: I'm shooting for 250,000 miles.

I bought my 2000 Ford super duty new and it was changed over to Conklin Vehicle Products at 1000 miles. I have a little over 200,000 on it now and haven't had any major repairs. You need to know this truck isn't babied and it doesn't see any special treatment besides the Conklin products. When a new truck cost \$45K why not give your truck a longer life & protect it with quality Conklin products?

- Michael Rockhold Sr., KS





#### **Oil Analysis**

WATER BY KARL FISCHER: Reports percent water (ASTM D-1744 or D-6304)

GLYCOL: A specific test for the presences of glycol (anti-freeze) in an oil (ASTM D-2982)

PARTICLE COUNT: Determines the level of cleanliness in hydraulic fluids

FUEL DILUTION: Unburned fuel in the oil may signal fuel system leaks or incomplete combustion.

TOTAL BASE NUMBER: Measures the level of alkalinity in an oil. Decreasing total base number signals the need to change oil (ASTM D-4739).

VISCOSITY: The kinematic viscosity (ASTM D-445) determined at 40°C and/or 100°C is a measure of the flow rate of an oil in relation to time. This data is used to assign an SAE grade to an oil.



#### Oil Analysis - Wear Metal Sources

Iron cylinders, gears, rings crankshafts, liners, bearings, housings, rust

Chromium rings, roller/taper bearing, rods and platings

Lead bearing overlays, additive in gear oil and gasoline

Copper bushings, bearings, thrust-washers, friction plates, copper heat exchangers

and oil additive

Tin bearings, bushings, piston platings

Aluminum pistons, bearings, pumps, blowers, rotors and thrust-washer

Nickel valves

Silver bearings, bushings and platings

Manganese trace elements in liners and rings, additive in gasoline

Titanium trace element Vanadium trace element



One of the many benefits to the Gold Guard Plus 75W-90 & Top Spec 80W-140 Synthetic Gear Oil's is the emphasis on minimizing NVH (Noise-Vibrations-Harshness). NVH generates as vibrations or noise. transmits in a variety of ways, and radiates acoustically into the cabin of a vehicle. Vibrations are sensed at the steering wheel, the seat, armrests, or the floor and pedals and in severe cases can be visually recognized. If left unaddressed vibrations are likely to lead to other premature part failure starting with driveline bearings and u-joints.



#### **Engine Oil Viscosity Classification Chart**

SAE Grade	MIN-cSt-100°	C-MAX-cSt
10W	4.10	
20	5.60	9.29
30	9.30	12.49
40	12.50	16.29
50	16.30	21.89



#### **How to convert to Convoy Motor Oil**

When converting an engine from conventional motor oil to Convoy, it is important to first clean any sludge and deposits from the crankcase with TKO®. You can switch directly to Convoy and Convoy motor oils will also clean away any sludge and deposits, but if Convoy is being used as a clean up oil you should not go for a extended oil drain interval with the initial oil change.

- For new vehicles with less than 20,000 miles you can use Convoy at the next oil and filter change interval.
- If your vehicle has 20,000-100,000 miles, run TKO and conventional motor oil for 3,000 miles before switching to Convoy.
- 3. For engines over 100,000 miles, it may be necessary to run TKO more than the one oil change interval. Keep in mind you can't run TKO too many times. When first running TKO, you may notice a slight increase in oil consumption. This is normal. The increased oil consumption is a result of the sludge and deposits burning off. Once you have converted to Convoy, you will no longer need to run TKO.

If you are currently using a semi / para /or full synthetic you will not run TKO before switching to Convoy Motor Oil.

