

# WPC Wolverine Plating Corporation

## LIST OF SPECIFICATIONS PERFORMED (6/3/10)

GENERAL: Zinc Plating and Zinc-Nickel Alloy Plating – Barrel only

**Chromates:**

- Dichromate
- Clear Chromate
- Olive Drab
- Black Chromate
- Yellow

*We are TS-16949*

*Registered*

**Trivalent Chromates:**

- Yellow, Clear, & Black

**Dyes:**

- Blue
- Black
- Red
- Green
- Orange
- Violet
- Yellow

- Baking for Hydrogen Embrittlement Relief
- Pickle & Oil
- Leachant/Sealant
- Seal
- Wax
- Torque'N Tension Fluid
- Stripping of Zinc & Zinc-Nickel
- Certifications
- Salt Spray Reports & Adhesion Tests

**MAJOR AUTOMOTIVE SPECIFICATIONS:**

CHRYSLER LLC:

CS-9003	MS-4592	MS-4857 (After forming)
PS-79	PS-77	PS-7187 (BASE COAT)
PS-4220	PS-77 (After forming)	PS-8814
PS-9295 (BASE COAT)	PS-1207	PS-8955 Ni
PS-9500	PS-PLATING	

FORD:

S8	ESB-M1P1-A
S9	ESE-M9G20-A
S36 (&S36B)	ESE-M21P17-A (1 & 2)
S40	ESF-4000 SERIES
ESF-M1P3-6-A	S43 (&S43B)
ESF-M1P41-A	S51
ESS-M1P45-A	S304

# DOC

WSA-M1P87-A1 (acid process)  
S309 WSB-M10P10-A  
S414 WSD-M1P85-A  
S419 WSD-M13P7-A  
S421 WSD-M21P19-A (19&21)  
S434 WSS-M2P189  
S427 (BASE COAT) WSS-M21P25-A  
S440 (BASE COAT) WSS-M21P17-B1  
S446 WSS-M99A3-A  
ESS-M1P87-A2 WSS-M1P94-A  
WSS-M9G21-A WSS-M21P40-A1  
WSS-M21P44 WSS-M99P9999-A1  
WS-48.01 FNHA-2-H-500.xx

GENERAL  
MOTORS:

GM4252M GME 00 252 Zinc & ZnNi  
GM4342M GM6184M (BASE COAT)  
GM6201 (After forming) GM6280M (ZnNi)  
GM4345M GM7113M (BASE COAT)  
GMW11 (After forming) GMW3044  
GMW3059 GMW4707 (BASE COAT)  
GMW4700 (ZnNi)

AMERICAN  
MOTORS:

AM 12002  
AM 12003

BMW:

BMW S 600 00.0 (Zn, ZnNi, Zn OL, Zn SW)  
GS 90010 (ZnT, ZnNiV Si)

FIAT:

9.57404  
9.57409

HONDA:

H E S A 3010  
H E S D 2003

HYUNDAI-KIA:

MS 611-4  
MS 611-15

ISUZU:

ISC-B11-004  
ISC-B00-001

MAZDA:

MES CG 310  
MES CG 510

MERCEDES-BENZ

DBL 8451  
DBL 9440  
DBL 9441

MITSUBISHI:

ES-X71050  
ES-X71054 Zn-Ni  
MES T025-01  
MS 82-3701

NISSAN:

NES M 4040  
NES M 4060

# DOC

SUZUKI: SES D 2211

TOYOTA: TS H5105G  
TS H6500G  
TS H6517G  
TS H6524G  
TS H6530G

VOLVO: STD 1271, 47  
STD 4972, 105  
STD 5700, 21  
STD 5713, 102  
STD 5732, 105

VOLKSWAGON: TL-244  
TL-VW 137 50  
TL-VW 217  
TL-VW 521 32

YAMAHA: YKG-7-801

## **GOVERNMENT SPECIFICATIONS:**

QQ-Z-325  
ASTM F-1941  
ASTM B-849  
ASTM B-242  
ASTM B-633  
ASTM B-841  
ASTM B-850-98  
ASTM A-641  
ASTM A-591 (After forming)  
ASTM A-591M-98 (After forming)  
MIL-STD-171  
57-0-2C Classes GS, LS, RS

## **OTHER MISCELLANEOUS SPECIFICATIONS:**

<u>AEROQUIP</u>	ACES 16P47, 52 SBES 007 SBES 063 CPS 5039 905-0015-001 AES G 3201-04 AES G 3501-U ES-2799 BW-103-P IFP-013 P2 MS-2412 MS-4052 STS S-00210 PS368-OA
<u>AGCO</u>	
<u>AIRPAX</u>	
<u>AKEBONO (AMBRAKE)</u>	
<u>ALLIED AUTOMOTIVE</u>	
<u>ALLIED SIGNAL</u>	
<u>AM GENERAL</u>	
<u>AMERICAN AXLE &amp; MFG.</u>	
<u>AMERICAN SHOWA</u>	
<u>A.O SMITH</u>	

# DOC

ARVIN MERITOR

ATWOOD AUTOMOTIVE

AUSTRALIAN STANDARD  
AUTOMOTIVE CONTROLS  
AUTOMOTIVE PRODUCTS  
AXLETECH  
BENDIX

BERGEN CABLE TECH.  
BEST LOCK  
B.H.M.A.  
BLD  
BOBCAT  
BOMBARDIER  
BORG-WARNER

BOSCH

508  
510-B  
703  
AADPS-4  
AVPS-4  
AS 1897-1976  
ES-1275  
DP 120  
STA 02-652  
ES-2567  
BW-162-P  
BX-11  
BX-13  
BX-14  
BW-225-P  
BW-375-P  
K7  
BW-P001  
ER-6660  
Code 603, 604  
25-179  
PS-P  
1827  
01ES00004  
10-00-447-A02-B  
284-263  
284-270  
BWS 61003  
ES-10003  
S-848  
S-873  
S-941  
S-944  
S-954  
S-1104  
S-1105  
S-942  
S-1236  
10-00-447-A02-B  
0 204 Y24 533  
0 204 Y82 120  
0 204 Y82 266  
5J0105  
ES-2567  
ES-3024  
F 00N 202 334  
LV 40 A-W  
MS-58  
N67F 821-06  
N67F 821 46  
N67F 822-06

# DOC

<u>BOWMAN DIST.</u>	N67F 822-08
<u>BRIGGS &amp; STRATTON</u>	N67F 826 10
<u>BROSE</u>	N67F 826 11
	N67F 826 12
	N67F 826-45
	N67F 826 46
	PE-9714
	B-10 E
	328K
	103
	590295-126
<u>BSH HOME APPLIANCES</u>	LV-40
<u>BSI</u>	BS 6338
<u>The BUDD COMPANY</u>	M.S. No. 18
<u>BUNDY TUBING</u>	E.S. 00014003
	E.S. 00014004
<u>BURROUGHS CORP.</u>	1270 5364
<u>CTS CORP.</u>	CS-210
	9002PS
<u>CALIFORNIA INDUSTRIAL</u>	S. O. P. No. QAP01
<u>CAPRO</u>	96-0024-XX
<u>CARTER CARBURETOR</u>	ACF C2.4
	B9. 4
	B9. 14
	B9. 19
	C2.4
	MS 201
<u>CASE</u>	1E0397
<u>CATERPILLAR</u>	1E1675
	1E2257
<u>CHAMPION LABORATORIES</u>	9957
<u>CITRÖEN</u>	B15 4102
<u>CLARK</u>	PS-P
	P and PR
<u>CLEVITE</u>	PS-180.0
<u>CNH</u>	MAT0310
<u>COLLINS &amp; AIKMAN</u>	ADS-133
<u>CONTINENTAL TEVES</u>	ATE N 106 36.21
	ATE N 106 61.00
	ATE N 522 61
	ATE N 553 81.03
<u>CONTROL DATA CORP.</u>	64051200
<u>CUMMINS</u>	74018
	74019
	74052
<u>CTS MEXICO</u>	CS-210
<u>CUTLER-HAMMER</u>	50-1251
	50-407
<u>DAEWOO</u>	EDS-M-3101
	EDS-M-3106

# DOC

DANA CORP.

032-0099008  
032-0099011  
032-0099012  
032-0099032  
032-0099035  
032-0099085  
032-0099380  
2. 005. 302-D  
4001  
ES-PS-06192  
ES-PS-4001  
MES-724  
P-19  
P125  
P204  
P205  
P206  
P501  
P502  
P503  
PS-1095  
SP-0013 THRU SP-0023

DAYCO  
DAYTON-WALTHER CORP.

DES-F002  
PL-Z-1  
PL-Z-3  
26008641  
DDS 6700-002  
JDM F15  
JDM F15X1  
JDS 117  
DTW 765

DELPHI STEERING  
DENSO  
JOHN DEERE

P-10  
P-44

DELCO REMY

DELPHI AUTOMOTIVE

DX550085  
DX550100  
DX550200  
DX551200  
DX551300  
DCM 5184  
DCM 5200  
10949004  
ES-103  
ES1018  
590295-102  
DIN 267 part 9  
DIN 50961  
DIN 50962  
DIN 50979  
DIN EN 12329  
DIN ISO 4042  
GAL ZN 210X

DE STA CO  
DEXTER AXLE  
DEUTSCHE NORMEN

# DOC

<u>DHB-CA</u>	BT.387/88
<u>DRAW-TITE</u>	ZINC PLATING
	00924-002
<u>EATON</u>	50-1251
	50-407
	ES-2751
	ES-10003
	P222A
	PS-168
	PS-186
	SBES 063
	TES-144
<u>ELASTIC STOP NUT (ESNA)</u>	302
	304
	534
<u>ELECTROLUX</u>	1043-C
	F-10
<u>EMERSON ELECTRIC</u>	3-1407
<u>ENGINE BOOSTING SYSTEMS</u>	IFP-008
<u>EUCLID INDUSTRIES. LLC.</u>	EES 700
<u>EUROPOWER</u>	HSP-5390
<u>E-Z-GO</u>	GS-726
<u>FABORY USA LTD</u>	MS203
<u>FALCON LOCK</u>	302
<u>FEDERAL MOGUL</u>	PS-104
<u>FIAMM</u>	FI#1000
<u>FINDLEX</u>	MFZn-Ni
<u>FIRESTONE</u>	NCD-3113-26-6
<u>FISHER GUIDE</u>	ES-1009
	MG-3518
<u>FLEXALLOY</u>	GS-726
<u>FMC</u>	12365897
<u>FMVSS</u>	209
<u>FREIGHTLINER</u>	49-00005
<u>FRIGIDAIRE</u>	1043-C
	F-10
<u>FRUEHAUF</u>	F.E.S. NO. 5
<u>FTE AUTOMOTIVE</u>	DP 120
<u>FUJI HEAVY</u>	TS430-1-33
<u>FURNAS</u>	D79060
<u>GARRETT</u>	IFP 008
<u>GENERAL ELECTRIC</u>	F50LE7
	F70B1
	F70B3
	F70B4
	F70B5
	F70B6
	F70B7
	F70B11
	F70B12
	F70B13
	F70B17

# DOC

<u>GIRLING</u>	P16D10
<u>GITS MFG CO</u>	SI-10559
<u>GKN</u>	TS2-21-01 to 10
	ES0276
	M 7011
	P 1002
<u>GRACO</u>	4.0450
<u>GREENVILLE PRODUCTS CO.</u>	1043-C
<u>GRESEN</u>	2.005.203
<u>GROTE</u>	36-0801-01
	36-0801-02
	36-0802-01
<u>GUNITE</u>	ES 240
<u>HALDEX</u>	ESF-3011
<u>HARLEY-DAVIDSON</u>	ES805-43250
	43250
	43251
<u>HAWORTH</u>	ES-1045
<u>HAYES LEMMERZ</u>	MS018
	MS58
	81145
<u>HELLA-NORM</u>	N47102-07
<u>HELI-COIL</u>	SH 211
<u>HENDRICKSON MFG.</u>	AA-26408 (H2)
	HTES-1044
<u>HERMAN MILLER</u>	SI-179
<u>HINO</u>	HTSH6524
<u>HOLLEY CARB.</u>	S-205
	S-704
	S-873
	S-848
	S-880
	S-942
	S-944
	S-950005
<u>HUSCO INTERNATIONAL</u>	603-101 to 108
<u>IBM</u>	ZINC 90
	ZINC 92
<u>IDEAL</u>	PS-168
	PS-170
	XPS-171
<u>IMPERIAL EASTMAN</u>	E.S. 322
<u>INLAND</u>	M-1880
	M-2163
<u>INTERNATIONAL HARVESTER</u>	G-20
<u>INTERNATIONAL TRUCK AND ENGINE</u>	CEMS G-20
	TMS-4113
<u>INTEVA</u>	MX551200
<u>INVENSYS</u>	ES-10645
<u>ISO</u>	ISO 2081
	IDO 4042
	ISO 4520

# DOC

ITT AUTOMOTIVE

ITRON

JACOBSEN

JAPANESE STDS. ASSN.

JC BAMFORD

JIFFY-TITE

JOHNSON CONTROLS

KAWASAKI

KJS

KELSEY HAYES

KENWORTH

KNORR

KOHLER

KOYO

KYSOR

LEMFORDER

LUCAS VARITY

LuK

MACK TRUCKS, INC.

MAGNETI MARELLI USA

MAHLE

MANITOWOC

MARK IV

MARVEL-SCHEBLER / TILLOTSCH

MASTER PNEUMATIC

MASTER-REEVES

MAYTAG

McMASTERS KOSS

MERCURY MARINE

MERITOR

METTLER TOLEDO

MGM BRAKES

MICRO SWITCH

MIDLAND ROSS

ATE N 106 36

ATE N 627 01

FS 1050

4050

4051

JIS B 1044

JIS D 0201 (MFZn)

JIS H 0404 (Ep-Fe / Zn)

JIS H 0404

JIS H 8610

JIS H 8625

STD00017

JT3016M

03-23-8

H-001-1

L1-101

B-4117

S-00411701

S-12650101

R026-198-19

N10199

Z-107

Z-111

Z-280

ELL-107

A-34793

LMN 50 GAL ZN & ZN-NI

S-00411701

S-12650101

0 812 980 25

817 GS 13

B-9.5009

WNA 2130

A6-829-009181

8292-02

P206

RQ0002

284-263

PS #5

300.010

337.010

3 SPC-001

3 SPC-010

510

525

M221P ZnNi

RG. 610 001 006

145129R

ES 1011-A

ES-1026

PS 005 009

ESF 3008

# DOC

<u>MISHAWAKA</u>	MES-724
<u>MP</u>	BS 1706
	BS 6338
<u>NATIONAL CRANE</u>	MS-130
<u>NAVISTAR</u>	G-20
	TMS-4106
<u>NEW HOLLAND</u>	FNHA-1-A-010.00
	FNHA-2-H-500.00
	FNHA-2-H-500.25
<u>NIPPONDENSO</u>	DDS 6700-2
	DS 67
	MF ZN 1C
<u>NISSHINBO</u>	Zinc Nickel Spec
<u>NISSIN KOGYO</u>	ST90-004
<u>OLYMPIC</u>	PT-2
<u>ORSCHELN</u>	0182
<u>PACCAR</u>	CMT0250
<u>PARKER-HANNIFIN</u>	AES 5000
	FC-F01
	CDS 2751
	PZ1
<u>PARKER HYDRAULICS</u>	MP-47
	2.005.302
<u>PAULIN</u>	P232-C
	P262-H
<u>PBR AUTOMOTIVE</u>	MS1123
	MS1139
<u>PETERBILT</u>	MPS 9303.003
<u>PEUGOT-CITRÖEN</u>	B15 4102
<u>PDD</u>	80-100
<u>PIERBURG</u>	8.25904.00
	8.25905.00
<u>POLLAK</u>	S-00411701-H
<u>POSITRONIC</u>	18
<u>POWER PACKER</u>	PPE-PS-014
	PS-001
<u>PRESTOLITE</u>	#341
	#350
	12S40460 (ON ZINC)
	10S8556
<u>RENAULT</u>	47-01-003
<u>ROBERT SHAW</u>	ES-00371000
	ES-00408000
<u>ROCKWELL INTERNATIONAL</u>	510
	516
	525
	530
	RG. 610 001 006
<u>ROMEO RIM</u>	10180400
	10180500
<u>SACHS</u>	WN 62/5

# DOC

SAE

SCHLAGE

SEDCO, INC.

SIEBE FLUID SYSTEMS

SIEMENS

SPX CORP

SQUARE D

STABILUS

STEELCASE

STEERING SYSTEMS ENG.

STONERIDGE

STS

TELEFLEX

TECUMSEH PRODUCTS

TELEDYNE

THOMPSON PRODUCTS

TI AUTOMOTIVE

TIS

TOLEDO SCALE

TORO

TOYODA

TRATECH

TRELLEBORG

TREMEC

TRICO

TRW

AMS 2402

AMS 2417

USCAR-5

MFC-13 604

999-0134

FS809 Ni

FIN-005

MPS No. 5002

MPS No. 5028

MPS No. 5032

MPS No. 5033

MPS No. 5053

MPS No. 5066

MPS No. 5077

SN 25886

DSD04-04

40004-017-01

830794-509

A48057-003

A48057-001-01

A48953-001

S30793-501

S30782-520

S30794-501

KDS-258-129

KDS-258-18

KDS-258-136

FN4943

STAB-SPEC 10133806

ES 1-02-01H

ELL-107

S-00411701

S-00210

ESDP-0400

H-43

MHS-123

TP-545

SPC 200 000 0001

NW 93-11-286

TIS S3512

145129R

M-300

GIP-HS-506

GS-104

TES-1204

TES-1205

ET-T-52

TZ-3.5

MP-47

047603

045622

S0000041

# DOC

TURBO TECHNOLOGIES  
UNISTRUT

VALEO

VARGA  
VELVAC  
VETCOGRAY  
VICKERS  
WABCO  
WEBB WHEEL  
WHIRLPOOL

WHITE MOTOR CORP.

YA AMERICA

ZENITH

S-14171201  
TPS-P-20,037-A, B, C, D  
TPS-P-20, 141  
TPS-P-20, 316  
TRWPS00005  
TS2-21-02 THRU TS2-21-10  
TS2-21-079  
TS2-21-108  
TS2-59-20  
TRWPS00005  
IFP-024  
FS 103  
FS 103-1  
FS 143  
2 548 064  
NVA.40.001  
NV-9410110  
EFZ00002  
VGS 6.2.10  
VS 2-3-2-33  
JED 256  
ES-203  
F-1  
F-12  
PS-68404  
WM-3101  
MS-0041  
MS-0042  
YES018  
YES025  
ES 209