

DOC

# WPC Wolverine Plating Corporation

## LIST OF SPECIFICATIONS PERFORMED (09/20/07)

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

### Chromates:

Dichromate  
Clear Chromate  
Olive Drab  
Black Chromate

*We are TS-16949  
Registered*

### Trivalent Chromates:

Yellow & Clear

### Dyes:

Blue  
Black  
Red  
Green  
Orange  
Violet

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:

<u>CHRYSLER LLC:</u>	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	
<u>FORD:</u>	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	
	WSA-M1P87-A1 (acid process)		
	S309	WSB-M10P10-A	

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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)

## 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

## MITSUBISHI:

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

## NISSAN:

NES M 4040  
NES M 4060

## SUZUKI:

SES D 2211

## TOYOTA:

TS H5105G  
TS H6500G  
TS H6517G  
TS H6524G

# DOC

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 B-633  
ASTM B-841  
ASTM B-850-98  
ASTM A-591 (After forming)  
ASTM A-591M-98 (After forming)  
MIL-STD-171  
57-0-2C Classes GS, LS, RS

## **OTHER MISCELLANEOUS SPECIFICATIONS:**

### AEROQUIP

ACES 16P47, 52

SBES 007

SBES 063

905-0015-001

AES G 3201

AES G 3501-U

ES-2799

BW-103-P

IFP-013

P2

MS-2412

508

AADPS-4

AVPS-4

ES-1275

DP 120

ES-2567

BW-162-P

BX-11

BX-13

BX-14

BW-225-P

BW-375-P

K7

BW-P001

ER-6660

### AIRPAX

### AKEBONO (AMBRAKE)

### ALLIED AUTOMOTIVE

### ALLIED SIGNAL

### AM GENERAL

### AMERICAN AXLE & MFG.

### ARVIN MERITOR

### ATWOOD AUTOMOTIVE

### AUTOMOTIVE CONTROLS

### AUTOMOTIVE PRODUCTS

### BENDIX

### BERGEN CABLE TECH.

### BEST LOCK

# DOC

B.H.M.A.  
BOBCAT  
BOMBARDIER  
BORG-WARNER

Code 603, 604  
PS-P  
1827  
01ES00004  
10-00-447-A02-B  
284-263  
284-270  
ES-10003  
S-848  
S-873  
S-941  
S-944  
S-954  
S-1104  
S-1236

BOSCH

10-00-447-A02-B  
0 204 Y24 533  
0 204 Y82 120  
0 204 Y82 266  
ES-2567  
ES-3024  
F 00N 202 334  
LV 40 A-W  
MS-58  
N67F 821-06  
N67F 821 46  
N67F 822-05  
N67F 826 10  
N67F 826 11  
N67F 826 12  
PE-9714

BOWMAN DIST.  
BRIGGS & STRATTON  
BROSE  
The BUDD COMPANY  
BUNDY TUBING

B-10 E  
328K  
103  
M.S. No. 18  
E.S. 00014003  
E.S. 00014004

BURROUGHS CORP.  
CTS CORP.

1270 5364  
CS-210  
9002PS

CALIFORNIA INDUSTRIAL  
CARTER CARBURETOR

S. O. P. No. QAP01  
ACF C2.4

CASE  
CATERPILLAR

B9. 4  
B9. 14  
B9. 19  
C2.4

CHAMPION LABORATORIES  
CITRÖEN  
CLARK

MS 201  
1E0397  
1E1675  
9957  
B15 4102  
PS-P

# DOC

CLEVITE  
CNH  
COLLINS & AIKMAN  
CONTROL DATA CORP.  
CUMMINS

CTS MEXICO  
CUTLER-HAMMER  
DAEWOO  
DANA CORP.

DAYCO  
DAYTON-WALTHER CORP.

DELPHI STEERING  
DENSO  
JOHN DEERE

DELCO REMY

DELPHI AUTOMOTIVE

DE STA CO  
DEXTER AXLE  
DEUTSCHE NORMEN

P and PR  
PS-180.0  
MAT0310  
ADS-133  
64051200  
74018  
74019  
CS-210  
50-1251  
EDS-M-3106  
032-0099008  
032-0099011  
032-0099012  
032-0099032  
032-0099035  
032-0099085  
032-0099380  
2. 005. 302-D  
4001  
MES-724  
P-19  
P125  
P204  
P205  
P206  
P501  
P502  
P503  
SP-0013 THRU SP-0023  
DES-F002  
PL-Z-1  
PL-Z-3  
26008641  
DDS 6700-002  
JDM F15  
JDS 117  
DTW 765  
P-10  
P-44  
DX550100  
DX550200  
DX551200  
DX551300  
DCM 5184  
DCM 5200  
10949004  
ES-103  
ES1018  
590295-102  
DIN 267 part 9  
DIN 50961  
DIN 50962

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<u>DRAW-TITE</u>	DIN EN 12329
	DIN ISO 4042
	GAL ZN 210X
	ZINC PLATING
	00924-002
<u>EATON</u>	50-407
	ES-10003
	P222A
	PS-168
	PS-186
	SBES 053
	SBES 063
	TES-144
<u>ELASTIC STOP NUT</u>	302
	304
	534
	3-1407
<u>EMERSON ELECTRIC</u>	IFP-008
<u>ENGINE BOOSTING SYSTEMS</u>	EES 700
<u>EUCLID INDUSTRIES. LLC.</u>	GS-726
<u>E-Z-GO</u>	MS203
<u>FABORY USA LTD</u>	302
<u>FALCON LOCK</u>	FI#1000
<u>FIAMM</u>	MFZn-Ni
<u>FINDLEX</u>	NCD-3113-26-6
<u>FIRESTONE</u>	ES-1009
<u>FISHER GUIDE</u>	MG-3518
	GS-726
<u>FLEXALLOY</u>	49-00005
<u>FREIGHTLINER</u>	1043-C
<u>FRIGIDAIRE</u>	F-10
	F.E.S. NO. 5
<u>FRUEHAUF</u>	DP 120
<u>FTE AUTOMOTIVE</u>	TS430-1-33
<u>FUJI HEAVY</u>	IFP 008
<u>GARRETT</u>	F50LE7
<u>GENERAL ELECTRIC</u>	F70B1
	F70B3
	F70B4
	F70B5
	F70B6
	F70B7
	F70B12
	F70B13
	F70B17
	P16D10
	TS2-21-01 to 10
<u>GIRLING</u>	ES0276
<u>GITS MFG CO</u>	M 7011
<u>GKN</u>	P 1002
	4.0450
<u>GRACO</u>	1043-C
<u>GREENVILLE PRODUCTS CO.</u>	

# DOC

<u>GRENSEN</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 (A1C4 & B2C4)
	S-848
	S-880
	S-942
	S-944
	S-950005
<u>HONEYWELL GARRETT</u>	1FP-008
	MS 61B
<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
<u>ISO</u>	ISO 2081
	IDO 4042
	ISO 4520
<u>ITT AUTOMOTIVE</u>	ATE N 106 36
	ATE N 627 01
<u>ITRON</u>	FS 1050
<u>JACOBSEN</u>	4050
	4051
<u>JAPANESE STDS. ASSN.</u>	JIS B 1044
	JIS D 0201 (MFZn)
	JIS H 0404 (Ep-Fe / Zn)
	JIS H 0404

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<u>JC BAMFORD</u>	JIS H 8610
<u>JEFFY-TITE</u>	JIS H 8625
<u>JOHNSON CONTROLS</u>	STD00017
<u>KAWASAKI</u>	JT3016M
<u>KJS</u>	03-23-8
<u>KELSEY HAYES</u>	H-001-1
	L1-101
	B-4117
	S-00411701
	S-12650101
<u>KENWORTH</u>	R026-198-19
<u>KNORR</u>	N10199
<u>KOHLER</u>	Z-107
	Z-111
	Z-280
<u>KOYO</u>	ELL-107
<u>KYSOR</u>	A-34793
<u>LEMFORDER</u>	LMN 50 GAL ZN & ZN-NI
<u>LUCAS VARITY</u>	S-00411701
	S-12650101
<u>LuK</u>	0 812 980 25
<u>MACK TRUCKS, INC.</u>	817 GS 13
<u>MAGNETI MARELLI USA</u>	B-9.5009
<u>MARK IV</u>	8292-02
	P206
	RQ0002
<u>MARVEL-SCHEBLER / TILLOTSCH</u>	284-263
<u>MASTER PNEUMATIC</u>	PS #5
<u>MASTER-REEVES</u>	300.010
	337.010
<u>MAYTAG</u>	3 SPC-001
	3 SPC-010
<u>McMASTERS KOSS</u>	510
	525
<u>MERCURY MARINE</u>	M221P ZnNi
<u>MERITOR</u>	RG. 610 001 006
<u>METTLER TOLEDO</u>	145129R
<u>MGM BRAKES</u>	ES 1011-A
<u>MICRO SWITCH</u>	PS 005 009
<u>MIDLAND ROSS</u>	ESF 3008
<u>MISHAWAKA</u>	MES-724
<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

# DOC

OLYMPIC  
ORSCHELN  
PBR AUTOMOTIVE

PETERBILT  
PDD  
PIERBURG

POLLAK  
POSITRONIC  
POWER PACKER  
PPE  
PARKER-HANNIFIN

PARKER HYDRAULICS

PRESTOLITE

RENAULT  
ROBERT SHAW

ROCKWELL INTERNATIONAL

ROMEO RIM

SAE

SCHLAGE  
SEDCO, INC.  
SIEBE FLUID SYSTEMS  
SIEMENS

SPX CORP  
SQUARE D

PT-2  
0182  
MS1123  
MS1139  
MPS 9303.003  
80-100  
8.25904.00  
8.25905.00  
S-00411701-H  
18  
PPE-PS-014  
PS-001  
AES 5000  
FC-F01  
MP-47  
2.005.302  
#341  
#350  
12S40460 (ON ZINC)  
10S8556  
47-01-003  
ES-00371000  
ES-00408000  
510  
516  
525  
530  
RG. 610 001 006  
10180400  
10180500  
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

# DOC

STABILUS  
STEELCASE  
STEERING SYSTEMS ENG.  
STONERIDGE  
STS  
TELEFLEX  
TECUMSEH PRODUCTS  
TELEDYNE  
TEVES (ITT)

THOMPSON PRODUCTS  
TI AUTOMOTIVE  
TIS  
TOLEDO SCALE  
TORO  
TRATECH  
TRELLEBORG

TREMEC  
TRICO  
TRW

TURBO TECHNOLOGIES  
UNISTRUT

VALEO

VELVAC  
VICKERS  
WABCO  
WEBB WHEEL

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  
ATE N 106 36  
ATE N 106 61  
ATE N 522 61  
ATE N 553 81  
TP-545  
SPC 200 000 0001  
TIS S3512  
145129R  
M-300  
GS-104  
TES-1204  
TES-1205  
ET-T-52  
TZ-3.5  
MP-47  
047603  
045622  
S0000041  
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  
EFZ00002  
VS 2-3-2-33  
JED 256  
ES-203

# DOC

WHIRLPOOL

F-1  
F-12  
PS-68404  
WM-3101  
MS-0041  
MS-0042  
YES018  
YES025  
ES 209

WHITE MOTOR CORP.

YA AMERICA

ZENITH