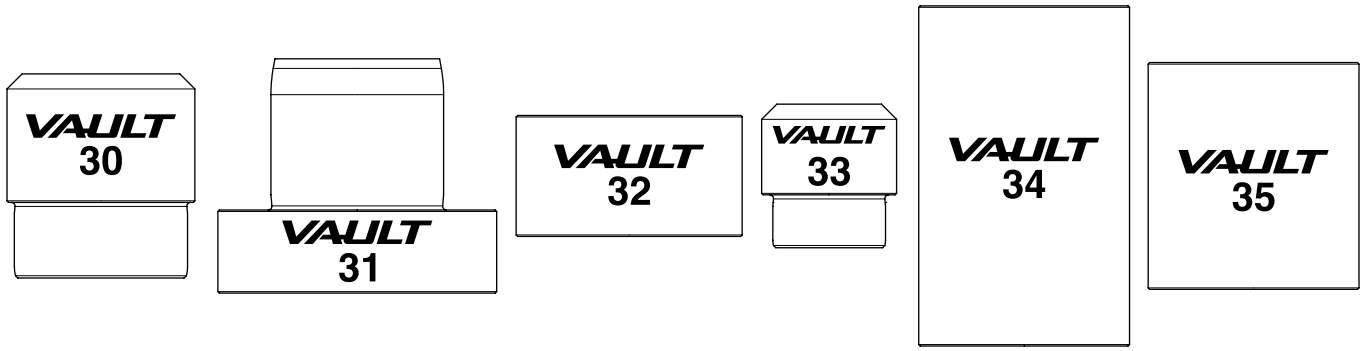
EASTON CYCLING

Vault Hubs I Bearing Replacement Procedure



DRIFT ID	DESCRIPTION	QTY SUPPLIED IN KIT
VAULT 30	Bearing removal tool for vault front 412 & 414 hubs with 6805 bearings	1
VAULT 31	Bearing installation drift for vault front 412 & 414 hubs with 6805 bearings	2
VAULT 32	Bearing installation drift for vaultfront 415 & 516 hubs with 18x30 bearings	2
VAULT 33	Bearing removal tool for vault front 415 & 516 hubs with 18x30 bearings	1
VAULT 34	Bearing installation drift for vault rear 421 & 424 & 422 & 525 hubs with 6902 bearings, drive side	1
VAULT 35	Bearing installation drift for vault rear 421 & 424 & 422 & 525 hubs with 6902 bearings, non-drive side	1

Visit eastoncycling.com for instructions on how to use this kit to replace bearings in Vault hubs. B60057-A

PART LIST

Hub Model	Easton Vault Rear Hub: 525	Easton Vault Front Hub: 516
Bearings (Required)	2pcs: 8022798 - Bearing 6902 CM AM	2pcs: 8022803 - Bearing 18x30 CN AM
Axle (optional)	8022797 - Axle,Vault,Rear,525 Gold AM	8022802-Axle,Vault,Front,516 Gold AM
Other parts to review for replacing (optional)	8022801-Pawl & Spring Kit Vault AM 8022800-Seal Vault Road Cassette Body Black AM 8022827-Spacer Vault Cassette Body Silver AM	8022807- Seal Kit Vault Front 516 AM

* Some Race Face and Easton spare parts can be interchanged as necessary, see Parts List Appendix B

TOOL LIST

1. Race Face & Easton Vault Hub Drift Kit: F60185 - Bearing,Drift,Kit,Vault,F+R,AM
   - 1pc Vault 30 - Bearing Removal Drift For Front Hubs With 6805 Bearings
   - 2pcs Vault 31 - Bearing Installation Drift For Front Hubs With 6805 Bearings
   - 2pcs Vault 32 - Bearing Installation Drift For Front Hubs With 18x30 Bearings
   - 1pc Vault 33 - Bearing Removal Drift For Front Hubs With 18x30 Bearings
   - 1pc Vault 34 - Bearing Installation Drift For Rear Hubs With 6902 Bearings, Drive Side
   - 1pc Vault 35 - Bearing Installation Drift For Rear Hubs With 6902 Bearings, Non-Drive Side
2. Hub Bearing Press (examples: Park Tool HBP-1, Enduro, Wheels Manufacturing)
3. Plastic mallet
4. Pick or small flat head screwdriver (required only for 516 hubs)
5. Light grease - approved products:
   a. Easton Cassette Body Grease
   b. Buzzy's Slick Honey Grease
   c. Slickoleum Light Grease
   d. Dumonde Tech Classic and Advanced Freehub Grease
   e. Superlube Silicone Lubricating Grease
   f. Triflow Clear Synthetic Grease
6. Light oil - approved products:
   a. Super Lube Multi Purpose Synthetic Oil with Syncolon (PTFE)
   b. Park Tool CL-1 Synthetic Blend Lube with PTFE

PREPARE FOR BEARING REPLACEMENT

1. Remove disc brake rotor
2. Clean wheel thoroughly and prepare a suitable workspace
3. Remove end caps: Easton Cycling end caps are designed to be removed by hand. Clamping end caps with vise jaws or pliers can damage end caps. A rubber glove can help improve grip. A 12mm blind bearing puller tool can be used for difficult to remove end caps
4. Rear Wheels: Rear drive-side end cap is easiest to remove by pulling cassette/cassette body/drive-side end cap all off at same time as assembled. Holding cassette and pushing on spokes is best method to apply force to release drive-side end cap from axle.
   If Cassette is not mounted, grab Cassette Body by hand and pull firmly to remove End Cap and Cassette Body.
5. Locate and remove cassette body 0.7mm spacer… spacer sometimes will stay on axle against drive side hub shell bearing OR it will stick to inner cassette body bearing inner race
   Optional step: Use small flat head screwdriver and cloth to clean dirt and grease from groove behind the cassette body shield. Use care to not scratch sealing surface or bend shield.
   Optional step: Re-lube (light grease) the drive ring on the cassette body and oil the hub seal's lip & pawl pockets. Use a small flat blade screwdriver to gently pry the seal out of the hub
6. Inspect hub for damaged parts (cut seals, corroded pawls/drive ring, damaged end caps, etc..) replace as necessary

BEARING REMOVAL

Front Hubs:
1. Use pick to remove inner seals (note orientation for correct reinstallation)
2. Choose correct drift for removal:

Hub Model	Easton Vault Front Hub: 516
Removal Drift	Vault 33 - Bearing Removal Drift For Front Hubs With 18x30 Bearings

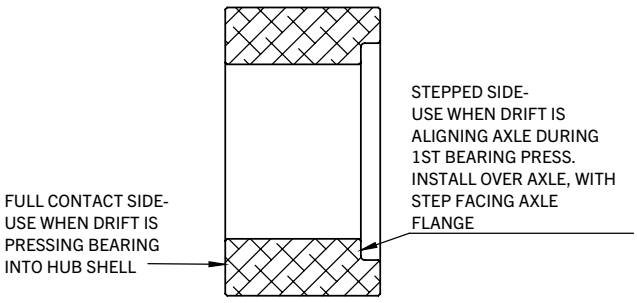
3. Insert removal drift in rotor-side of axle
4. Hammer drift until drive side bearing is ejected. Use care to safely catch axle as it gets hammered out
5. Reinsert axle into rotor-side bearing
6. Insert removal drift into drive-side of axle and hammer drift until rotor-side bearing is ejected Use care to safely catch axle as it gets hammered out
7. Clean hub shell, axle, seals and end caps

Rear Hubs:
1. Using the plastic mallet, hammer the drive-side end of the axle to eject the rotor-side bearing and axle from the non-drive side of hub shell. Use care to safely catch axle as it's hammered out.
2. Flip axle and re-insert short (rotor-side) end of axle through hub shell and into drive-side bearing
3. Using the plastic mallet, hammer the axle to eject the drive-side bearing from the hub shell. Use care to safely catch axle as it gets hammered out
4. Clean hub shell, axle, seals and end cap

BEARING INSTALLATION

General notes/warnings :
- Install/Press only one bearing at a time, guiding bearing with 2nd drift in opposite bearing bore
- Always fully install rear drive-side bearing first or for front hubs rotor-side bearing first
- Orient bearings so that red seals face outward
- No grease or Loctite is required in the bearing bores
- Never press a bearing using the stepped side of a bearing drift. Only press bearings with drift flat side contacting bearings.

1. Assemble Installation Drift onto bearing press. For Drift 32 that has one side with step (counter bore), orient drift so that fully flat side will be contacting bearing to be pressed



Hub Model	Easton Vault Rear Hub: 525	Easton Vault Front Hub: 516
Drift # for 1st bearing press	Vault 34 - Bearing Installation Drift For Rear Hubs With 6902 Bearings, Drive Side	Vault 32- Bearing Installation Drift For Front Hubs With 18x30 Bearings

2. Determine if hub axle should be assembled with 1st bearing for 1st bearing press:

Hub Model	Easton Vault Rear Hub: 525	Easton Vault Front Hub: 516
Bearing installed on axle for 1st bearing Press	Yes	Yes

3. Assemble new 1st bearing (and axle if applicable) onto to Installation Drift on hub press tool. Red seal oriented to face outward (red seal faces drift, not hub). Make sure drift flat side fully supports/contacts inner and outer bearing races

Hub Model	Easton Vault Rear Hub: 525	Easton Vault Front Hub: 516
Bearing	8022798 - Bearing 6902 CM AM	8022803 - Bearing 18x30 CN AM

4. Confirm axle orientation: Easton front Center Lock hubs (516) have a longer bearing journal on rotor-side. All rear hubs have longer bearing journal on drive-side.
5. Assemble hub shell onto hub bearing press with rear drive side or front rotor-side bearing bore toward new 1st bearing.

6. Select correct drift to act as alignment guide for hub bearing press tool

Hub Model	Easton Vault Rear Hub: 525	Easton Vault Front Hub: 516
Drift # for opposite bore guide during 1st bearing press	Vault 35 - Bearing Installation Drift For Rear Hubs With 6902 Bearings, Non-Drive Side	Vault 32 - Bearing Installation Drift For Front Hubs With 18x30 Bearings

7. For Drift 32 & 35 that have one side with step (counter bore), orient drift so that stepped side faces axle flange into hub shell (to ensure there is clearance to axle flange to allow 1st bearing to fully seat).
8. Place drift for alignment guide onto hub bearing press and into opposite (empty) bearing bore.
9. Tighten Hub Bearing Press:
   a. Use a firm force on handles of bearing press and make sure bearing is firmly seated
10. Loosen hub bearing press tool
11. Remove installation (alignment guide) drift
12. Optional step: remove hub press tool and confirm bearing rotates w/o any roughness.
13. ***IMPORTANT*** Hub Axle: confirm already installed (all rear hubs + 516 front hubs)
14. Check axle for correct orientation
15. Assemble new 2nd bearing onto axle. Red seal faces outward
16. Reinstall Installation Drift
17. ***IMPORTANT*** Ensure Drift 32 and 35 are oriented so that full contact side of drift is touching the bearing to fully support inner and outer bearing races during press step
18. Tighten Hub Bearing Press: Use a moderate force on handles of bearing press. Forces too low or too high can
    result in excessive drag and premature wear
19. Removal Hub Bearing Press and all Installation Drifts
20. Confirm bearings rotate w/o any roughness
21. Confirm hub axle cannot be moved/shifted side to side between bearings

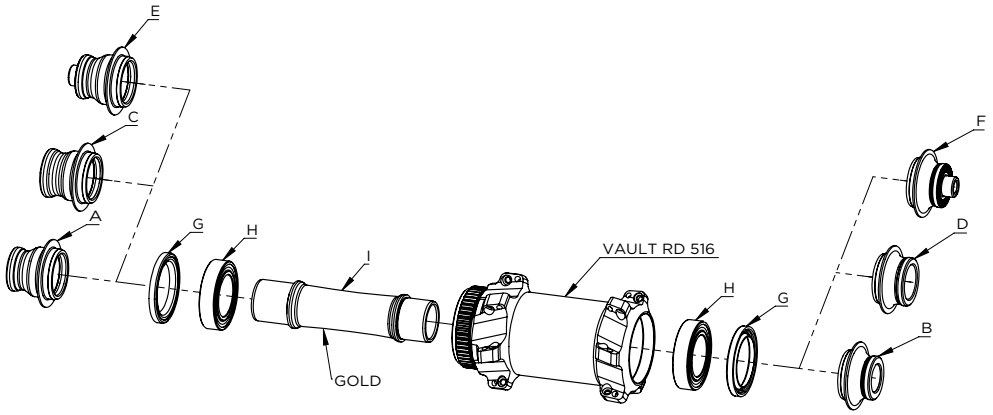
HUB RE-LUBE AND REASSEMBLY

1. Apply a thin layer of light grease to cover the following hub shell bearings:
   a. 525 Rear rotor-side
   b. 516 Front: both sides
2. 516 hubs only: Reassemble inner seals - correct orientation is lip pointing outwards
3. Rear only:
   Optional step: Use small flat head screwdriver and cloth to clean dirt and grease from groove behind the cassette body shield. Use care to not scratch sealing surface or bend shield.
   Optional step: re-lube (light grease) the drive ring on the cassette body and oil the seal lip & pawl pockets.
   a. Assemble 0.7mm cassette body spacer on axle, between hub shell bearing and cassette body
   b. Assemble cassette body, turning counter-clockwise to engage pawls
   c. Apply thin coat of thin cassette body grease to Shimano HG outer cassette body bearing, for XD, XDR, Micro Spline, and Campagnolo bodies apply and thin coat of waterproof grease to outer cassette body bearing
4. Reinstall end caps
   a. 525: longer end cap on rotor-side
   b. 516 front hub: longer end cap on (Center Lock) rotor-side

EASTON
VAULT 516

PART #	DESCRIPTION	PART INCLUDED
8022802	AXLE,VAULT,FRONT,516 GOLD AM	I
8022803	BEARING 18X30 CN AM	H
8022807	SEAL KIT VAULT FRONT 516 AM	G,G
8022805	ENDCAP SET VAULT F 516 12x100 AM	A,B
8022806	ENDCAP SET VAULT F 516 15x100 AM	C,D
8022804	ENDCAP SET VAULT F 516 9x100QR AM	E,F
D60185	BEARING,DRIFT,KIT,VAULT,F+R	NOT SHOWN

NOTES
1. See eastoncycling.com for service and repair instructional videos
2. Remove end caps by hand, if tight try using a rubber glove or blind bearing puller tool
3. Always install rotor side bearing first
4. Longer end cap installs on rotor side
5. Lube outside facing bearing seals and end cap seals with light grease

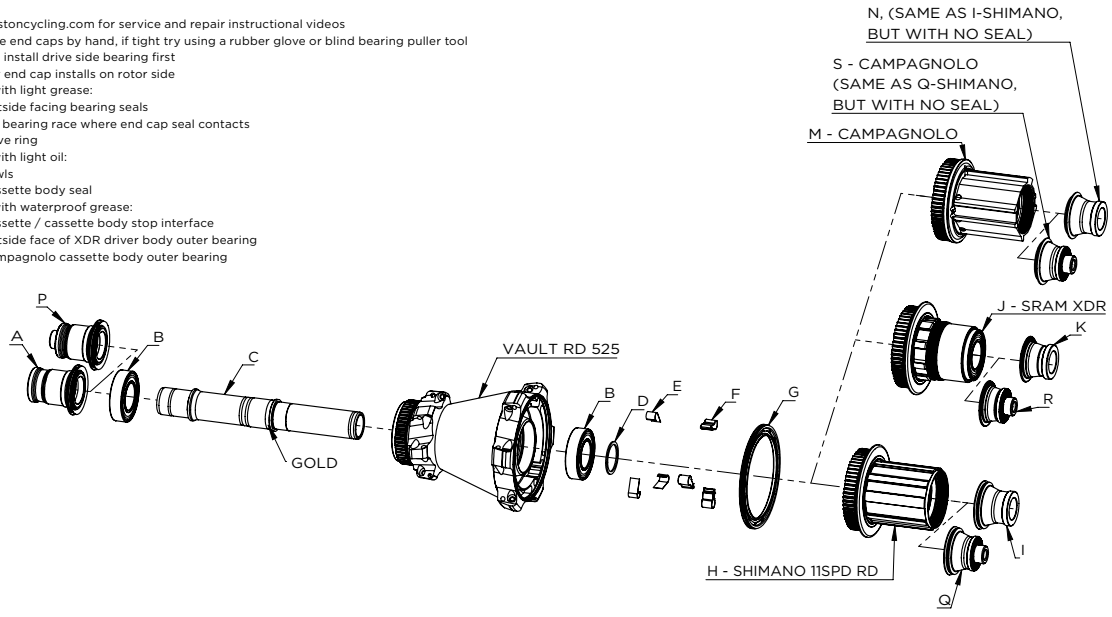


V1.3 9.27.19

EASTON
VAULT 525

PART #	DESCRIPTION	PART INCLUDED
8022797	AXLE,VAULT,REAR,525 GOLD AM	C
8022798	BEARING 6902 CM AM	B
8022793	CASS BODY VAULT CAMPY 60T AM	M,N,D,S
8022792	CASS BODY VAULT SHI 11SPD ROAD 60T AM	H,I,D,Q
8022970	CASS BODY VAULT XDR 60T AM	J,K,D,R
8022796	ENDCAP SET VAULT 525 R 10x135QR AM	P,Q,R,(S)
8022795	ENDCAP SET VAULT 525 R 12x142 AM	A,I,K,(N)
8022801	PAWL & SPRING KIT VAULT AM	3xE, 3xF
8022800	SEAL VAULT ROAD CASSETTE BODY BLACK AM	G
8022827	SPACER VAULT CASSETTE BODY SILVER AM	D
D60185	BEARING,DRIFT,KIT,VAULT,F+R	NOT SHOWN

NOTES
1. See eastoncycling.com for service and repair instructional videos
2. Remove end caps by hand, if tight try using a rubber glove or blind bearing puller tool
3. Always install drive side bearing first
4. Longer end cap installs on rotor side
5. Lube with light grease:
   I. Outside facing bearing seals
   II. OD bearing race where end cap seal contacts
   III. Drive ring
6. Lube with light oil:
   I. Pawls
   II. Cassette body seal
7. Lube with waterproof grease:
   I. Cassette / cassette body stop interface
   II. Outside face of XDR driver body outer bearing
   III. Campagnolo cassette body outer bearing



V1.3 9.25.19

APPENDIX B – VAULT SPARE PARTS LIST

- • Compatible part.
- ○ Alternate option. Avoid mixing different spoke types when possible.

Part #	Description	EA90 SL Disc	EC90 SL DISC	EC90 AERO55 Disc	EC90 AERO85 Disc	EA90 AX	EC90 AX
F60054	AXLE,VAULT,FRONT,412,SILVER						
F60055	AXLE,VAULT,FRONT,414 BOOST,BLACK						
F60121	AXLE,VAULT,FRONT,415 BOOST,BLACK						
8022802	AXLE,VAULT,FRONT,516 GOLD AM	•	•	•	•	•	•
F60061	AXLE,VAULT,REAR,421,SILVER						
F60088	AXLE,VAULT,REAR,422 SILVER						
F60062	AXLE,VAULT,REAR,424,BOOST BLACK						
8022797	AXLE,VAULT,REAR,525 GOLD AM	•	•	•	•	•	•
F60079	BEARING 15267 CM	○	○	○	○	○	○
8022799	BEARING 15267 CM AM	•	•	•	•	•	•
8022803	BEARING 18X30 CN AM	•	•	•	•	•	•
F60123	BEARING 18X30 CN,AM	○	○	○	○	○	○
F60060	BEARING 6805 CM						
F60078	BEARING 6902 CM	○	○	○	○	○	○
8022798	BEARING 6902 CM AM	•	•	•	•	•	•
8022793	CASS BODY VAULT CAMPY 60T AM	•	•	•	•	•	•
8022792	CASS BODY VAULT SHI 11SPD ROAD 60T AM	•	•	•	•	•	•
F60076	CASS BODY VAULT SHI MTN, 9/10/11SPD, 60T AM	○	○	○	○	○	○
F60077	CASS BODY VAULT XD 60T AM	○	○	○	○	○	○
8022970	CASS BODY VAULT XDR 60T AM	•	•	•	•	•	•
F60144	CASS BODY,VAULT,MICRO SPLINE SHI12,60T	○	○	○	○	○	○
B60030	DECAL SHEET,NEXT R 31,27.5,BLK						
B60038	DECAL SHEET,NEXT R 31,29,BLK						
B60031	DECAL SHEET,NEXT R 36,27.5,BLK						
B60032	DECAL SHEET,NEXT R 36,29,BLK						
B60033	DECAL SHEET,NEXT SL 26,29,BLK						
F60185	BEARING,DRIFT,KIT,VAULT,F+R, AM	•	•	•	•	•	•
8022796	ENDCAP SET VAULT 525 R 10x135QR AM	•	•	•	•	•	•
8022795	ENDCAP SET VAULT 525 R 12x142 AM	•	•	•	•	•	•
8022805	ENDCAP SET VAULT F 516 12x100 AM	•	•	•	•	•	•
8022806	ENDCAP SET VAULT F 516 15x100 AM	•	•	•	•	•	•
8022804	ENDCAP SET VAULT F 516 9x100QR AM	•	•	•	•	•	•
F60100	ENDCAP SET,VAULT,415,15X110						
F60057	ENDCAP SET,VAULT,F,412,20X110						
F60058	ENDCAP SET,VAULT,F,412,9X100,QR						
F60056	ENDCAP SET,VAULT,F,412/414,15MM						
F60059	ENDCAP ET,VAULT,F,412/414,15MM,TRQ CAP						
F60086	ENDCAP SET,VAULT,F,414,20X110,BOOST						
F60122	ENDCAP SET,VAULT,F,415,15MM,TRQ CAP						
F60066	ENDCAP SET,VAULT,R,12X135/150						
F60063	ENDCAP SET,VAULT,R,12X142/148/157						
F60069	ENDCAP SET,VAULT,R,421,10X135QR						
F60020	MTN TUBELESS KIT,VALVE X2 /TAPE 10MX22MM					○	○

F60021	MTN TUBELESS KIT,VALVE X2 /TAPE 10MX29MM					○	
F60022	MTN TUBELESS KIT,VALVE X2 /TAPE 10MX37MM						
2031810	NIPPLE,ALLOY,BLACK	•	•	•	•	○	○
D60114	NIPPLE,ALLOY,DOUBLE SQUARE,2.0x16,SL,BLK	○	○	○	○	•	•
8022801	PAWL & SPRING KIT VAULT AM	•	•	•	•	•	•
F60074	PAWL AND SPRING KIT,VAULT	○	○	○	○	○	○
8022977	RIM EC90 AER055 DISC 24H 19			•			
8022978	RIM EC90 AER085 DISC 24H 19				•		
8022976	RIM EC90 SL38 DISC 24H 19		•				
8023144	RIM, EC90 AX, DISC, 24, 700c, 24H						•
ORM18A3027.528H	RIM,ATLAS,30,27.5",28H,ASYM,BLK						
ORM18A302928H	RIM,ATLAS,30,29",28H,ASYM,BLK						
8023049	RIM,EA90 AX DISC 24H 700c					•	
ORM18NXR3127.528H	RIM,NEXT R,31,27.5",28H,ASYM,BLACK G/M						
ORM18NXR312928H	RIM,NEXT R,31,29",28H,ASYM,BLACK G/M						
ORM19NXR3627.528H	RIM,NEXT R,36,27.5",28H,OFFSET,BLACK						
ORM19NXR362928H	RIM,NEXT R,36,29",28H,OFFSET,BLACK						
ORM19NXSL262928H	RIM,NEXT SL,26,29",28H,OFFSET,BLACK						
ORM17TUR3027.528H	RIM,TURBINE R,27.5",28H,ASYM,BLACK G/M						
ORM17TUR302928H	RIM,TURBINE R,29",28H,ASYM,BLACK G/M						
ORM20TURSL252928H	RIM,TURBINE SL,25,29",28H,BLK						
8022374	ROAD TUBELESS KIT Valvex2 Tape10mx22mm	•	•	•	•		•
F60142	SEAL KIT VAULT FRONT 415 AM	○	○	○	○	○	○
8022807	SEAL KIT VAULT FRONT 516 AM	•	•	•	•	•	•
8022800	SEAL VAULT ROAD CASSETTE BODY BLACK AM	•	•	•	•	•	•
F60072	SEAL,VAULT,CASSETTE BODY,BLACK						
8022827	SPACER VAULT CASSETTE BODY SILVER AM	•	•	•	•	•	•
D60073	SPACER,VAULT,CASSETTE BODY,SILVER	○	○	○	○	○	○
8022776	SPOKE SP 2.0/1.7 289 BLK	•					
8006004	SPOKE SS S.P CXRAY 263 BLK			•			
D60117	Spoke,SS,S.P,2/0/1.65,TCS,295mm,BLK						•
D60092	SPOKE,SS,S.P.2.0/1.5,280MM,BLK						
D60080	SPOKE,SS,S.P.2.0/1.5,284MM,BLK						
D60093	SPOKE,SS,S.P.2.0/1.5,299MM,BLK						
D60081	SPOKE,SS,S.P.2.0/1.5,303MM,BLK						
D60120	SPOKE,SS,S.P.2.0/1.5,TCS,303MM,BLK						
D60115	SPOKE,SS,S.P.2.0/1.65,TCS,280MM,BLK						
D60112	SPOKE,SS,S.P.2.0/1.65,TCS,299MM,BLK						
D60090	SPOKE,SS,S.P.2.0/1.8,282MM,BLK						
D60091	SPOKE,SS,S.P.2.0/1.8,301MM,BLK						
D60140	SPOKE,SS,S.P.CX RAY 234 BLK				•		
D60141	SPOKE,SS,S.P.CX RAY 280 BLK		•				
8023050	SPOKE,SS,SP,2.0/1.65,TCS,297MM					•	
8022218	TUBELESS VALVE w/Removable Core 46mm	•				•	•
8022376	TUBELESS VALVE w/Removable Core 58mm		•				
8007749	TUBELESS VALVE w/Removable Core 75mm			•			
D60154	TUBELESS VALVE,W/R CORE 105MM				•		
D60046	TUBELESS VALVE,W/R CORE 41MM	○				○	○