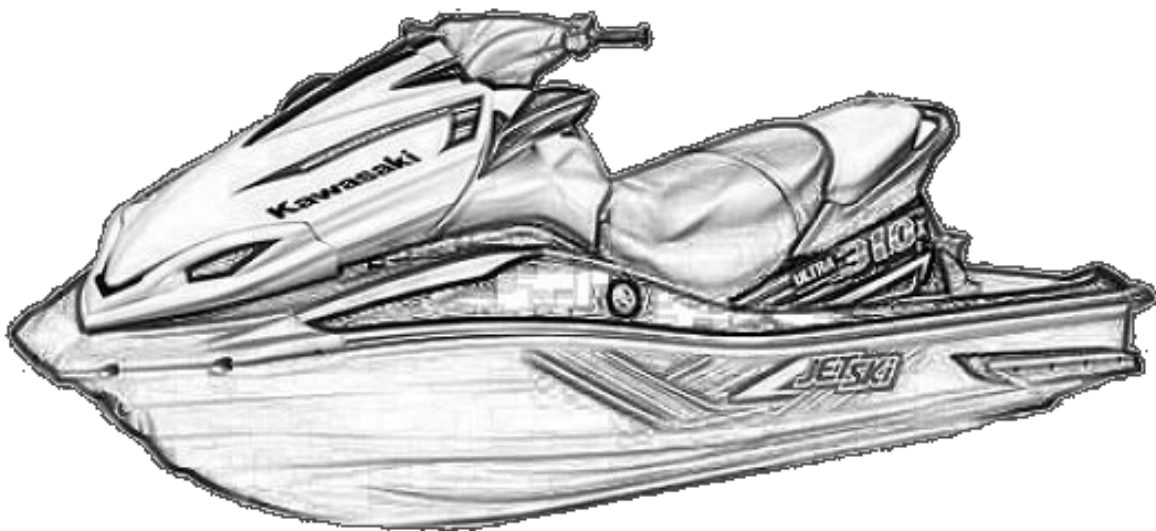


K-TECH TRAINING



Instructor Lesson Plan 2014

Ultra® Pro Service

Service Training and Communications
Kawasaki Motors Corp., U.S.A.

Kawasaki Ultra® Pro Service *Tools and Materials*

Lesson	Tool / Item	Part No./Backup	✓
Finding TDC	TDC finder	57001-402	
Diagnosing Mis-Timed Cams	Jumper wires	Radio Shack, tackle box	
Ultra X Exhaust Filters	Diffusers		
Supercharger Belt Tens	Early tensioning tool	57001-1697	
	Later tensioning tool	13280-0726	
Replacing S/C Belt	Replacement eng mnt	92161-3789	
	Wrench extension	08-0134	
	24" long ½" dr extens	WBB993361	
	½" to 3/8" reducer		
	2x4		
Inspecting/Removing Pump Impeller	Impeller vise holder	57001-1695	
	Impeller wrench	57001-1228	
Removing Pump Shaft	Bearing driver set	Sunex	
	Later model 3-bear shaft		
Pump Reassembly/Reinstall	Old pump shaft	13107-3788	
	New pump shaft	13107-0764	
	New pump bearing	92045-3744 x2	
	New pump bearing	92045-3745	
	Snap ring	92033-3730	
	Oil seal	92049-3739 x3	
	Nut	92015-1512	
	Oil seal	92093-3749	
	o-ring	92055-3741	
	o-ring	92055-3744	

	o-ring	93055-1101	
	o-ring	92055-0183	
	o-ring	92055-025	
Ultra Key Registration	Spare keys	27008-3767, tackle box	
	Registration tool	57001-1582	
	2010 and later cable	57001-1746	
KDS Diagnostics	KDS kit and laptop		
	PWC relay cable	57001-1696	
Lab Activity Fog S/C	Fogging aerosol		
General	General supplies	See training center assets list	

Sign-In Sheet

Kawasaki Hands-On Course: _____

Location: _____

Date: _____

Please print clearly, name/dealer number

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Instructor: Please copy this sheet for each class instructed.

Instructor Notes

Course objectives

- Demonstrate (through written assessment) knowledge of Mule™ product, including service bulletins
- Bleed a Mule™ cooling system
- Time a diesel Mule™ fuel injection pump
- Perform basic maintenance checks on a Mule™ CVT system
- Demonstrate (through written assessment) understanding of operation of Mule™ CVT system
- Disassemble, inspect and reassemble a Mule™ CVT system
- Demonstrate competency in performing basic engine diagnostics
- Use the Mule™ built-in self-diagnostics to retrieve fault codes
- Use KDS3 to retrieve Mule™ fault codes

Course ethic and thrust

- There is plenty of time to do things in various ways. Draw pictures, talk, demonstrate – it is up to you.
- Your lecture/discussion should be grounded on K-Dealer and the official service manual online. Use both, and have both open, during class discussions.
- No service bulletins are included in the student workbook so the student is encouraged to look the bulletins up in K-Dealer.

Online use

- I recommend you have at least one (loaner?) laptop at the student's disposal so they can look up service bulletins. We want to model this for our students.
- We also want to model how the efficient shop uses K-Dealer.

The lesson plan

- This lesson plan is not scripted, it is merely a skeleton framework around the student objectives. You the instructor put the flesh on the content by bringing your background, experience and unique perspective to the subject. Focus on the objectives.
- Pieces of the student workbook are included in the lesson plan for your convenience.
- The final quiz is also included in the lesson plan.

The student workbook

- The student workbook is half notepages and half resources.
- A workstation check-off sheet is provided for the student also.

Taking attendance

- You have three choices: Do it online, the most efficient way
- Or use the student namecards inside the students' workbooks
- Or use the traditional one-sheet sign-in sheet – be sure to label with course and date

Course quiz

- The course is designed to have the students take the quiz in class before they leave

Kawasaki Ultra® Pro Service Course Map

<p>Day 1</p> <p>INTRO 15 MIN</p> <p>ULTRA HISTORY 15 MIN</p> <p>ULTRA SERVICE BULLETINS 30 MIN</p> <p>AM BREAK 15 MIN</p>	<p>Day 1</p> <p>FINDING TRUE TDC 20 MIN</p> <p>DIAGNOSING MIS-TIMED CAMS 15 MIN</p> <p>SPARK PLUG REPL TIPS 15 MIN</p> <p>LAB 75 MIN</p>	<p>Day 1</p> <p>LUNCH BREAK 60 MIN</p> <p>DEBRIEF 15 MIN</p> <p>SUPERCHG PWC EXH FILTERS 10 MIN</p> <p>250/260 S/C BELT TENS 10 MIN</p>	<p>Day 1</p> <p>REPLACING THE S/C BELT 15 MIN</p> <p>LAB 120 MIN</p> <p>END OF DAY 1</p>
<p>Day 2</p> <p>DEBRIEF 15 MIN</p> <p>INSPECT JET PUMP IMPELLER 15 MIN</p> <p>INSPECT JET PUMP CASE 15 MIN</p> <p>INSPECT PUMP BEAR & SEALS 15 MIN</p>	<p>Day 2</p> <p>REMOVING PUMP IMPELLER 15 MIN</p> <p>REPL PUMP BEARINGS 15 MIN</p> <p>REASSEMBLING PUMP 15</p> <p>LAB 120 MIN</p>	<p>Day 2</p> <p>LUNCH BREAK 60 MIN</p> <p>DEBRIEF 15 MIN</p> <p>ULTRA KEY REGISTRATION 30 MIN</p> <p>MAKING A SHOP KEY 15 MIN</p>	<p>Day 2</p> <p>ONBOARD DIAGNOSTICS 30 MIN</p> <p>KDS DIAGNOSTICS 30 MIN</p> <p>LAB 90 MIN</p> <p>END OF DAY 2</p>
<p>Day 3</p> <p>DEBRIEF 15 MIN</p> <p>SVCING SUBMERGED PWC 45 MIN</p> <p>PREP FOR STORAGE 30 MIN</p> <p>AM BREAK 15 MIN</p>	<p>Day 3</p> <p>TAKING OUT OF STORAGE 15 MIN</p> <p>LAB 90 MIN</p> <p>LUNCH BREAK 60 MIN</p> <p>DEBRIEF 15 MIN</p>	<p>Day 3</p> <p>FINAL QUIZ 20 MIN</p> <p>END OF COURSE</p>	

Enrolling student(s)

Kawasaki
Home > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Not Grouped | Show All | Partial Match

Last Name: test | Active | Reset/Sort

Apply Filters

#	User ID	Username	Name	Email Address	Last Login	Courses	Status	User Type	Group	Rewards	Dealers
1	12	test_admin_user	test_admin_user	mike.nixon@kimo-usa.com	03/16/2011	0	Active	Tech	Learners	No	NOC Internal (12/12)
2	13	kawabono	Kawa Demo	james@clearing.net	01/06/2012	0	Active	Tech	Kawasaki Administrators	No	NOC Internal (13/13)
3	4332	test_instructor	test instructor	mike.nixon@kimo-usa.com	12/07/2012	0	Active	Tech	Instructors	No	NOC Internal (4332)
4	4332	test_learner_tech1	test tech1	mike.nixon@kimo-usa.com	12/06/2012	13	Active	Tech	Learners	No	NOC Internal (4332)
5	4324	test70	Jay Adams	jayadams@comcast.net	01/16/2012	20	Active	Tech	Learners	No	NOC Internal (4324)
6	4324	adleridge	Wade Adleridge	wadleridge@baldwinmotorcycles.com	01/26/2012	1	Active	Tech	Dealer Managers	No	NOC Internal (4324)
7	4324	adrian	Honora Acosta	servicing@adrian.com	10/21/2004	0	Active	Tech	Learners	No	NOC Internal (4324)
8	4324	phna	JOHN ADAMEC	lawpr@benleyemotorycles.com	06/12/2007	0	Active	Tech	Learners	No	NOC Internal (4324)
9	4324	edog	Charles ADAMS	info@centralmotorcycles.com	10/14/2009	1	Active	Tech	Learners	No	NOC Internal (4324)
10	4324	3425	KP ADAMS	whf542@yahoo.com	06/17/2009	2	Active	Tech	Dealer Managers	No	NOC Internal (4324)
11	4324	jenahopz_mch	William Adams	mch@motorcycleusa.com	06/04/2008	0	Active	Tech	Learners	No	NOC Internal (4324)
12	4324	cadams27	Christopher Adams	info@kawasasi.com	07/02/2004	2	Active	Tech	Dealer Managers	No	NOC Internal (4324)
13	4324	kevthom	Fred Adams	info@kawasasi.com	01/16/2004	0	Active	Tech	Learners	No	NOC Internal (4324)
14	4324	stevadams	Steve Adams	info@brothermotorcycles.com	01/04/2011	1	Active	Tech	Dealer Managers	No	NOC Internal (4324)
15	4324	mad3	WARTY ADAMS	info@kawasasi.com	06/06/2007	2	Active	Tech	Dealer Managers	No	NOC Internal (4324)
16	4324	tevor	Tevor Adams	tevor@motorcycleusa.com	10/02/2006	1	Active	Tech	Learners	No	NOC Internal (4324)
17	4324	monty	Monty Adams	info@kawasasi.com	03/19/2004	1	Active	Tech	Learners	No	NOC Internal (4324)
18	4324	112767	JAMES ADAMSON	info@belamyoutdoorports.com	03/19/2004	1	Active	Tech	Learners	No	NOC Internal (4324)
19	4324	abe200	J Abe	info@kawasasi.com	05/21/2007	1	Active	Tech	Learners	No	NOC Internal (4324)

Showing 1 - 25 of 18669 total results.

User Browser

Kawasaki
Home > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Not Grouped | Show All | Partial Match

Last Name: test | Active | Reset/Sort

Apply Filters

#	User ID	Username	Name	Email Address	Last Login	Courses	Status	User Type	Group	Rewards	Dealers
1	4332	test_learner_tech1	test tech1	mike.nixon@kimo-usa.com	12/06/2012	13	Active	Tech	Learners	No	NOC Internal (4332)

Showing 1 - 1 of 1 total results.

Find user(s)

Kawasaki
Home > User Browser > User Information > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Select an action

1 Items selected (clear selected items)

#	User ID	Username	Name	Email Address	Last Login	Courses	Status	User Type	Group	Rewards	Dealers
1	4332	test_learner_tech1	test tech1	mike.nixon@kimo-usa.com	12/06/2012	13	Active	Tech	Learners	No	NOC Internal (4332)

Showing 1 - 1 of 1 total results.

Checkmark user(s)-->select "Actions"

Kawasaki
Home > User Browser > User Information > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Select an action

1 Items selected (clear selected items)

#	User ID	Username	Name	Email Address	Last Login	Courses	Status	User Type	Group	Rewards	Dealers
1	4332	test_learner_tech1	test tech1	mike.nixon@kimo-usa.com	12/06/2012	13	Active	Tech	Learners	No	NOC Internal (4332)

Showing 1 - 1 of 1 total results.

Select "Training Registration"

Kawasaki
Home > User Browser > User Information > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Training Registration

Service Update 2010 Quiz

Service Update 2010 Interactive

Service Update 2011 Quiz

Service Update 2011 Interactive

8 other services

#	User ID	Username	Name	Email Address	Last Login	Courses	Status	User Type	Group	Rewards	Dealers
1	4332	test_learner_tech1	test tech1	mike.nixon@kimo-usa.com	12/06/2012	13	Active	Tech	Learners	No	NOC Internal (4332)

Showing 1 - 1 of 1 total results.

Find course

Kawasaki
Home > User Browser > User Information > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Training Registration

Service Update 2013

Review and Confirm

1 Items selected (clear selected items)

#	User ID	Username	Name	Email Address	Last Login	Courses	Status	User Type	Group	Rewards	Dealers
1	4332	test_learner_tech1	test tech1	mike.nixon@kimo-usa.com	12/06/2012	13	Active	Tech	Learners	No	NOC Internal (4332)

Showing 1 - 1 of 1 total results.

Click "Review and Confirm"

Kawasaki
Home > User Browser > User Information > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Please review the selected items and confirm that you want to perform the following action.

Wait for when full?

Training Tip: Service Update 2013

Done & Locations

	Start Date	End Date	Location	Instructor	Seats Available
<input type="radio"/>	January 16th, 2013 at 8:30 AM	January 16th, 2013 at 5:00 PM	Abuquerque, NM	David Witherspoon	50
<input type="radio"/>	February 19th, 2013 at 8:30 AM	February 19th, 2013 at 5:00 PM	Albuquerque, NM	Carla Johnson	40
<input type="radio"/>	January 16th, 2013 at 8:30 AM	January 16th, 2013 at 5:00 PM	Baton Rouge, LA	Kenny Payton	50
<input type="radio"/>	January 14th, 2013 at 8:30 AM	January 14th, 2013 at 5:00 PM	Birmingham, AL	Chris Rice	35
<input type="radio"/>	January 28th, 2013 at 8:30 AM	January 28th, 2013 at 5:00 PM	Bloomington (Chicago), IL	Rio Taylor	50
<input type="radio"/>	January 22nd, 2013 at 8:30 AM	January 22nd, 2013 at 5:00 PM	Bloomington (Minnesota), MN	Rio Taylor	50
<input type="radio"/>	January 7th, 2013 at 8:30 AM	January 7th, 2013 at 5:00 PM	Bloomington, UT	Mike Isaac	20
<input type="radio"/>	January 29th, 2013 at 8:30 AM	January 29th, 2013 at 5:00 PM	Camden, IL	Kenny Payton	50
<input type="radio"/>	January 8th, 2013 at 8:30 AM	January 8th, 2013 at 5:00 PM	Chambers, WV	Carlton Connor	40
<input type="radio"/>	January 19th, 2013 at 8:30 AM	January 19th, 2013 at 5:00 PM	Cincinnati (Randal), OH	Mike Isaac	50
<input type="radio"/>	February 7th, 2013 at 8:30 AM	February 7th, 2013 at 5:00 PM	Clinton, MS	Kenny Payton	30
<input type="radio"/>	January 10th, 2013 at 8:30 AM	January 10th, 2013 at 5:00 PM	Columbia, SC	Chris Rice	35
<input type="radio"/>	January 9th, 2013 at 8:30 AM	January 9th, 2013 at 5:00 PM	Columbus, OH	Mike Isaac	25
<input type="radio"/>	January 10th, 2013 at 8:30 AM	January 10th, 2013 at 5:00 PM	Corasopolis (Pittsburgh), PA	Carlton Connor	50
<input type="radio"/>	January 17th, 2013 at 8:30 AM	January 17th, 2013 at 5:00 PM	Cromwell, CT	Brian Fugate	35
<input type="radio"/>	January 24th, 2013 at 8:30 AM	January 24th, 2013 at 5:00 PM	Dallas (Lancaster), TX	David Witherspoon	30
<input type="radio"/>	January 15th, 2013 at 8:30 AM	January 15th, 2013 at 5:00 PM	East Holmes, VA	Mike Isaac	40
<input type="radio"/>	January 15th, 2013 at 8:30 AM	January 15th, 2013 at 5:00 PM	East Syracuse, NY	Brian Fugate	40

Find location, scroll down, click "Perform"

Kawasaki
Home > User Browser > User Information > User Browser

User Browser

Filters | Export | Bookmarks | Actions

Training Registration

The action completed successfully.

Done

1 Items selected (clear selected items)

#	User ID	Username	Name	Email Address	Last Login	Courses	Status	User Type	Group	Rewards	Dealers
1	4332	test_learner_tech1	test tech1	mike.nixon@kimo-usa.com	12/06/2012	13	Active	Tech	Learners	No	NOC Internal (4332)

Showing 1 - 1 of 1 total results.

Click "Done"

Marking student(s) attended

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Registration ID, Registered between 10/16/2002 and 12/06/2012

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		
4	73920	BOB JONES	100009647	JAY CYCLES (1185)	Sales	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		
5	73919	Chuck Lucas	chuck.lucas		Tech	Interactive	2013 Inpa6 300	0		
6	73918	KYLE SODALSO	100011700	REDLINE POWERSPORTS KAWASAKI (0186)	Sales	Interactive	2013 KX™250F and KX™450F	0		
7	73917	James Parnell	100015723	NIKKONIE-SALINAS KAWASAKI (1190)	Sales	Interactive	2013 Inpa6 ZX™-6B	0		
8	73916	FEDRANEO SANTO J.	jeanito	YOE KAWASAKI (0980)	None	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		
9	73915	James Parnell	100015723	NIKKONIE-SALINAS KAWASAKI (1190)	Sales	Interactive	2013 Ninja™ 750 6A	0		
10	73914	John Tibbitts	john11	TYO JACKS KAWASAKI (0921)	Tech	Video	Procedure of Carburetor, Valve Out	0		
11	73913	Andy Pacha	andyp	DMV TECHNICAL COLLEGE (4319)	Tech	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		

Showing 1 - 25 of 61554 total results.

Registration browser

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Course Section, Registered between 10/16/2002 and 12/06/2012

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		
4	73920	BOB JONES	100009647	JAY CYCLES (1185)	Sales	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		
5	73919	Chuck Lucas	chuck.lucas		Tech	Interactive	2013 Inpa6 300	0		
6	73918	KYLE SODALSO	100011700	REDLINE POWERSPORTS KAWASAKI (0186)	Sales	Interactive	2013 KX™250F and KX™450F	0		
7	73917	James Parnell	100015723	NIKKONIE-SALINAS KAWASAKI (1190)	Sales	Interactive	2013 Inpa6 ZX™-6B	0		
8	73916	FEDRANEO SANTO J.	jeanito	YOE KAWASAKI (0980)	None	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		
9	73915	James Parnell	100015723	NIKKONIE-SALINAS KAWASAKI (1190)	Sales	Interactive	2013 Ninja™ 750 6A	0		
10	73914	John Tibbitts	john11	TYO JACKS KAWASAKI (0921)	Tech	Video	Procedure of Carburetor, Valve Out	0		
11	73913	Andy Pacha	andyp	DMV TECHNICAL COLLEGE (4319)	Tech	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		

Showing 1 - 25 of 61554 total results.

Filter by Course Section

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Course Section, Registered between 10/16/2002 and 12/06/2012

Actions: Select an action, Edit Status

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		
4	73920	BOB JONES	100009647	JAY CYCLES (1185)	Sales	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		
5	73919	Chuck Lucas	chuck.lucas		Tech	Interactive	2013 Inpa6 300	0		
6	73918	KYLE SODALSO	100011700	REDLINE POWERSPORTS KAWASAKI (0186)	Sales	Interactive	2013 KX™250F and KX™450F	0		
7	73917	James Parnell	100015723	NIKKONIE-SALINAS KAWASAKI (1190)	Sales	Interactive	2013 Inpa6 ZX™-6B	0		
8	73916	FEDRANEO SANTO J.	jeanito	YOE KAWASAKI (0980)	None	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		
9	73915	James Parnell	100015723	NIKKONIE-SALINAS KAWASAKI (1190)	Sales	Interactive	2013 Ninja™ 750 6A	0		
10	73914	John Tibbitts	john11	TYO JACKS KAWASAKI (0921)	Tech	Video	Procedure of Carburetor, Valve Out	0		
11	73913	Andy Pacha	andyp	DMV TECHNICAL COLLEGE (4319)	Tech	Interactive	2013 Jet Star Ultra3000 & Ultra3000S	0		

Showing 1 - 25 of 61554 total results.

Find your section way down at the bottom

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Course Section, Registered between 10/16/2002 and 12/06/2012

Actions: Select an action, Edit Status

Review and Confirm: 3 Items selected (Clear selected items)

Completion Date: December 2012

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		

Showing 1 - 3 of 3 total results.

Click "Actions" tab, checkmark students, select "Edit Status"

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Course Section, Registered between 10/16/2002 and 12/06/2012

Actions: Select an action, Edit Status

Edit Status: Not Attempted, Completed, Failed

Review and Confirm: 3 Items selected (Clear selected items)

Completion Date: December 2012

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		

Showing 1 - 3 of 3 total results.

Make New Status "Complete"

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Course Section, Registered between 10/16/2002 and 12/06/2012

Actions: Select an action, Edit Status

Review and Confirm: 3 Items selected (Clear selected items)

Completion Date: December 2012

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		

Showing 1 - 3 of 3 total results.

Choose completion date, click "Review and Confirm"

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Course Section, Registered between 10/16/2002 and 12/06/2012

Actions: Select an action, Edit Status

Review and Confirm: 3 Items selected (Clear selected items)

Completion Date: December 2012

Please review the selected items and confirm that you want to perform the following action.

New status: Complete
Completion Date: 12/06/2012

Perform

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		

Showing 1 - 3 of 3 total results.

Click "Perform"

Kawasaki
Home » Registration Browser

Menu: Communities, Users, Courses, Registrations, Certificates, Catalogs, Documents, Locations, Dealers

Filters: Not Grouped, Show All, Course Section, Registered between 10/16/2002 and 12/06/2012

Actions: Select an action, Edit Status

Review and Confirm: 3 Items selected (Clear selected items)

Completion Date: December 2012

The action completed successfully.

Done

#	Registration ID	Name	Username	Dealers	User Type	Course Type	Course Title	Course Section	Program	Program Section
1	73922	test.techn	test.techn@ksc	NISSAN (1185) / NISSAN (75617)	Tech	Update	Service Update 2013	777	USA Nissan	Bozeman, MT
2	73922	john.jones	john.jones	CUSTOM PERFORMANCE KAWASAKI (1517)	Tech	Interactive	2013 Nissan ZX™-6B	0		
3	73921	Bob Jones	bob.jones	HRDAVIS MOTORCYCLE STORE KAWASAKI (0271)	None	Interactive	2013 Nissan ZX™-6B	0		

Showing 1 - 3 of 3 total results.

Click "Done"

Ultra 300 Pro Service

Introduction

Ref	Lesson Objectives	<u>Notes</u>
	The student will: <ol style="list-style-type: none">1. Learn and anticipate the direction and scope of the course2. Be informed of the location of the restrooms and fire extinguishers	
	Benefit to the Student	
	The introduction will “break the ice” and prepare the student to get into the mood to learn. It sets the tone, perspective, and pace of the course. It also allows late-comers time to arrive and not miss too much core material.	
	Lesson	
	DAY 1	
LIVE	A. Introduction <ol style="list-style-type: none">1. Welcome2. Explain location of restrooms, coffee, fire extinguishers3. Highlight objectives (found on sequence page)4. Describe day’s schedule, time of breaks5. Take attendance <u>online</u> on the K-Tech Learning Center	8:30am
OL		

Kawasaki Ultra® 300 Pro Service

Ultra® 300 Service Bulletins

Ref	Lesson Objectives	<u>Notes</u>
	The student will: <ol style="list-style-type: none"> 1. Through assessment, demonstrate overall knowledge on the Kawasaki Ultra 300 product. 2. This will include the general topics of Teryx service bulletins. 	Test VINs JKAEXMJ198-DA00113
	Benefit to the Student This lesson will start the student on his/her way to becoming the dealership expert in the Ultra 300 product.	JKAEXMJ13A-DA60281
	Lesson	
PPT	A. Brief history of the Kawasaki Ultra supercharged personal watercraft <ol style="list-style-type: none"> 1. Show Ultra 300X/Lincoln video 2. Quick overview of Kawasaki supercharged pwc change history 3. Quick glance at chronology page re model identification 	8:45am
OL	B. Light overview of Jet Ski® service bulletins since 2007 (not all s/c) <ol style="list-style-type: none"> 1. Do this <u>online</u> on k-dealer, skip hangtag and emissions cert bulletins 2. Start with WTY 05-04 emphasize dlr responsib, levels of campaigns 3. JS 07-01 Ultra 250X/LX key registration (see also key registr technical video on the K-Tech Learning Center) INFO 4. JS 07-02 Ultra 250X/LX fuel rail hose RECALL 5. JS 07-03 Ultra 250X/LX throttle lever housing RECALL 6. JS 07-04 Ultra 250X/LX ignition switch replacement FDM 7. JS 07-05 Ultra 250X spark plug replacement FAR 8. JS 07-06 Ultra 250X supercharger water intrusion FDM 9. JS 08-01 Ultra 250, STX15F throttle body replacement FDM 10. JS 08-02 STX12F, 15F, STX DI, Ultra 130 DI fuel hose repl RECALL 11. JS 09-01 STX, STX15F, 800 SX-R fuel tank replacement RECALL 12. JS 09-02 2008 STX15F fuel tank inspection RECALL 13. JS 09-03 900 STX, 1200 STX fuel tap inspection RECALL 14. JS 10-02 Ultra 260X/LX water box muffler fitting inspection FDM 15. JS 10-03 STX, STX 15F fuel pump clamps and holder inspection RECALL 16. JS 11-01 Ultra 300X/LX system flushing and s/chgr fogging INFO 17. JS 11-02 2011 and 2012 STX15F, Ultra 260X/LX, 300X/LX steering cable inspection RECALL 18. JS 12-01 All 2007~2010 Supercharger lubrication kit INFO 19. Demonstrate using VIP on k-dealer <u>online</u> 20. Mention <i>Managing the Campaign Process</i> eLearning course – show location <u>online</u> on Learning Center 21. Open K-Tech News Vol 20, Issue 1 re danger of bolts under engine 22. Answer any questions that come up 	Quick “ <i>here is what and where</i> ” – no more than this, unless it is to ask students their experience with doing these campaigns. Doing on k-dlr “models” for students how they should be using k-dealer. Also see <i>K-Tech News</i> Manual says to fog supercharger 10 seconds <u>daily</u> Mention retrofit kit 99999-0349 Volume 20, Issue 1, pg 13
OL		

Ultra 300 Pro Service

Ultra 300 Basic Maintenance

Lesson Objectives

The student will:

1. Find true TDC using the output coupler method
2. Remove and inspect exhaust diffuser
3. Remove and install supercharger drive belt
4. Properly tension supercharger drive belt

Benefit to the Student

This lesson will add competency to the dealer technician and improve his or her daily confidence.

Lesson

BRK

A. 15-minute break 10:00~10:15

10:00am

B. Finding true TDC after valve adjustment

10:15am

OL

1. Open and review K-Tech News article *Mind the Valve Shims*, Volume 24, Issue 2, pg 6

2. Open and review K-Tech News article *Simple 4-Stroke Watercraft Cam Timing*, Volume 23, Issue 2, pg 6.

3. Crankshaft rotates counterclockwise facing drive coupler

4. Find approximate TDCC (TDC compression) on the number one cylinder using an aerosol spray can straw or something similar

5. Install a dial indicator and after getting a more precise TDC location, felt pen mark the output coupler

6. Then rotate the engine the opposite direction until getting your indicator high spot again, and mark the coupler again.

7. The exact TDCC is between the two marks

8. Install the camshafts in the usual way

OL

C. Technique for diagnosing mis-timed camshafts

1. If engine is running poor, use jumper wires to swap the crankshaft position sensor (ignition pulser's) wires

2. If engine runs better, the cams (usually exhaust cam) are out of time

D. Spark plug replacement tips

1. Open Service Bulletin JS 07-05 (FDM) on k-dealer.

2. Emphasize bulletin concerns factory-installed plugs, but issues can be encountered with dealer-installed plugs also, if over-tightened. Note the 113 in-lb recommendation.

3. Discuss contribution supercharged watercraft adds to issue

a. Excess water in cylinder due to moisture in exhaust

b. Later models have exhaust filter (diffuser)

LIVE

Method originates in 2003 JT1200B2 service manual (99924-1312-03), pg 6-20.

While speaking of couplers, bring up issue of using ignition rotor to hold against coupler torquing, not recommended. See K-Tech News Volume 20, Issue 1, pg 12

Explain that what the trick does is invert the pulser's sinewave, which retards spark, aligning it better with a mis-timed camshaft.

More on the exhaust diffuser after lunch

LAB	E. Practical (lab) activity 10:45~12:00 – students’ assignments: 1. Find exact TDC using the output coupler method	10:45am
BRK	F. Lunch break 12:00~1:15	12:00pm
	G. Activity debrief 1:15	1:15pm
LIVE	H. Supercharged Kawasaki watercraft exhaust filters (diffusers) 1. Introduced in 2011 with the then-new 300X/LX 2. Designed to limit backflow of normal exhaust water into cylinder on engine shutdown especially, and at idle 3. Retrofit kit part number 99999-0350 includes reducer bushings 4. 25-hour inspection/replace interval (in owner’s manual) 5. Mid-production 2013 and later s/c boats have a diffuser with a hole in it which makes the diffuser last longer, plus a pin in the exhaust pipe	1:30pm
	I. 250 and 300 supercharger belt tensioning 1. Special tool -1697 is req for early, 13280-0726 for later Eaton s/c 2. Line up tool with tensioner plate bolt 3. Make sure it’s straight up and down 4. Then swing upward til touches tensioner pulley (idler wheel) 5. Correct tension is between two marks on tool 6. Remember to loosen tensioner locking bolt (in the pulley) before attempting to use vertical adjusting bolt 7. After tensioning, disable ignition by unplugging ignition coil primary wires (or simply remove cam position sensor if this is easier) 8. Crank engine for 5 seconds 9. Recheck belt tension	Filter with hole in it goes to 25 hours (2015 spec) High-maintenance Supercedes
PPT	J. Replacing the supercharger belt 1. Remove seats and rear grip plate 2. Unbolt oil separator	This tip is also found in K-Tech News Volume 21, Issue 2, pg 6, and Volume 21, Issue 3, pg 9
PPT	3. Unbolt all four engine mounts (between engine and mount, not between mount and hull) 4. Remove the belt guard 5. Loosen the intercooler hose clamps 6. Loosen or remove the exhaust upper member (don’t forget the bolts hidden under the brand plate) 7. Slacken the supercharger belt 8. Use a 2x4 to scoot the engine forward until there is room enough to slip the belt out – <u>be careful the engine does not fall off its mounts</u> 9. Slide the engine back again, reattach everything, bolt engine down 10. The engine mount bolts need to be torqued, use a wrench adapter and mount it on an extension at a 90 degree angle	This tip is also found in K-Tech News Volume 20, Issue 1, pg 16 Refer to manual
LAB	K. Practical (lab) activity – students’ assignments: 1. Look up on K-Dealer service bulletin JS07-06 2. Remove and inspect exhaust diffuser 3. Remove and reinstall supercharger drive belt 4. Properly tension supercharger drive belt	2:00pm
KNW	L. Knowledge check 4:00-4:05 M. End of day – 4:05	4:00pm

Ultra 300 Pro Service

Ultra 300 Jet Pump Maintenance

Ref

Lesson Objectives

The student will:

1. Visually inspect and measure jet pump clearances and wear condition
2. Inspect pump bearings and seals
3. Disassemble and reassemble the complete jet pump assembly

Notes

Benefit to the Student

Parallel to a motorcycle's drive chain or shaft, the personal watercraft drive pump is an important system requiring its own informed maintenance and skillful repair. The technician is to gain valuable proficiency in this area.

Lesson

DAY 2

A. Debrief previous day

B. Inspecting pump impeller

1. First 25 hrs/year, then every 50 hrs/year
2. Visually inspect impeller for pitting, cavitation burn, nicks or other damage
3. If significant, remove the impeller to sand or file edge imperfections, (not cavitation burn) taking care to leave smooth leading edges to prevent cavitation
4. Measure impeller outside diameter at 159.5~159.7mm, 1mm less is the service limit

C. Inspecting pump case

1. Measure impeller-to-pump clearance at 0.15~0.30mm, 0.60mm is service limit – if out that far determine whether impeller or case
2. Measure pump inside diameter at 160.0~160.1mm, 1mm more is the service limit

D. Inspecting pump bearings and seals

1. Remove pump
 - a. Remove steering nozzle, reverse cable, pump cover, pump bolts, speed sensor, steering cable, coolant hoses
 - b. Disengage pump from drive shaft and slide out
2. Spin impeller by hand to check bearing smoothness
3. If roughness is felt, replace bearings and seals

E. Removing pump impeller

1. Remove pump outlet, pump cap, impeller seal
2. Clamp tool -1695 in a vise
3. Unscrew impeller using tool -1228

8:30am

Periodic maint
table

0.006"~0.012"

In manual

OL

OL	<p>F. Removing pump shaft and replacing shaft bearings</p> <ol style="list-style-type: none"> 1. With impeller removed, slide out pump shaft with its bearing 2. Press the shaft bearing off in a press 3. Press out the two bearings in the pump case with a bearing driver, suitably sized socket or piece of pipe, in a press 4. Remove the snap ring and press out the pump case seal <p>G. Reassembling the pump</p> <ol style="list-style-type: none"> 1. Blow out case with compressed air 2. Inspect coolant outlet filter, install new o-ring 3. Install new grease seals and snap rings, filling the gap between the seals with grease 4. Install the bushing, filling its area with grease also 5. Press in the new bearings until they bottom out 6. Press a new bearing onto the pump shaft 7. Put a new o-ring onto the pump shaft 8. Install the impellor all the way, then remove and check threads for galling – if visible replace both impeller and shaft with new 9. Reinstall impeller and check the impeller distance above the pump case for less than 10.5mm, if incorrect, disassemble and reassemble. 	<p>These are just the highlights, see the manual for each step</p>
LAB	<p>H. Practical (lab) activity 10:00 – students' assignments:</p> <ol style="list-style-type: none"> 1. Remove jet pump, make inspection checks per manual 2. Completely disassemble and reassemble jet pump 	<p>10:00am</p>
BRK	<p>I. Lunch break 12:00~1:00 J. Debrief activity 1:00~1:15</p>	<p>12:00pm 1:00pm</p>

Ultra 300 Pro Service

Ultra 300 Advanced Maintenance

Ref	Lesson Objectives	Notes
	<p>The student will:</p> <ol style="list-style-type: none"> 1. Register one or more Ultra electronic keys 2. Retrieve fault codes using onboard diagnostics 3. Retrieve fault codes using KDS3 	
	Benefit to the Student	
	<p>These skills are important to the dealer's ability to properly service the product, and more importantly, serve the customer. Mastery of these skills will allow the technician to be more productive.</p>	
OL	Lesson	
	<p>A. Ultra key registration</p> <ol style="list-style-type: none"> 1. Run <i>Ultra Key Registration</i> video on Learning Center online 2. Emphasize difference between 1st key and the subsequent keys <ol style="list-style-type: none"> a. 1st key produces a read beep AND a rewrite beep, subsequent keys produce only write beeps in keeping with their sequence 3. Emphasize hold-down for last key until get long beep 4. Emphasize MUST remove dongle immediately afterward <ol style="list-style-type: none"> a. Don't want to give dongle to customer b. More importantly, boat will not start with dongle still attached 5. Remind that new Y-cable is needed on 2010 and later boats 6. Discuss how Immobilizer system works, how it is different and how it is similar to Concours system <ol style="list-style-type: none"> a. Both ECUs have six "slots" b. But Ultra slots can be erased, Concours cannot c. Both systems use radio waves d. Both systems require all keys to be present during a registration episode e. Both systems require a an already-working key to start the reregistration process f. Neither system uses a master key (as does the Euro market motorcycle Immobilizer) g. Ultra Immobilizer requires only an inexpensive special dongle, the Concours requires KDS 7. Discuss what happens when all keys are lost in both systems <ol style="list-style-type: none"> a. In both systems, the ECU must be replaced b. On the Ultra, the ECU comes totally blank and new keys are sold separately c. The first two keys will register without needing the dongle d. On the Concours, a new ECU comes with two keys (fobs) already pre-registered just like in the bike in a crate e. KDS is needed to register any additional keys on the Concours 	1:15pm
LIVE		Same dongle Euro Kawasaki sport bikes use, 57001-1582
		Part number 57001-1746

- LIVE
- B. Making a “shop” key
1. Why would you want to make a shop key?
 - a. Number one reason is customer service. More pwc users lose their keys than users of any other product. Having a shop key allows you to offer a key replacement service, and it can be marketed at the time of the service as a customer benefit that is much less expensive than replacing the ECU.
 - b. Another benefit is when your customer brings in the boat for service and forgets to leave you their key. You don’t have to waste time trying to get a hold of them.
 2. How to make a shop key
 - a. Naturally, the two keys that come with the boat are already registered from the factory, so key registration is never a required part of A&P.
 - b. However, if you add key registration to A&P on every unit you sell, before it is delivered to the customer, and include the same third “shop key” every time (paint it black and keep it with your shop special tools), you will then have access to every boat you have sold and have reregistered the keys on.
 - c. Obviously, if the customer should at some time at another shop have a registration episode redone for any reason (adding another key for an additional family member?), then your shop key will no longer work on that customer’s unit because it will have been left out of that new registration episode. Something to keep in mind.
- C. Onboard diagnostics
- OL
1. Also called dealer mode and self-diagnostics
 2. Recommend resource K-Tech News Volume 22, Issue 2, Volume 22, Issue 3, and Volume 22, Issue 4 “*Kawasaki Fuel Injection Simplified.*”
 3. Push SET and MODE buttons simultaneously for 3 seconds or more
 4. Read the codes on the instrument display, look up in the manual
 5. Turn boat off to cancel self-diagnosis
 6. Run the boat to at least 18 mph to confirm no issues remaining
 7. On this model, DFI fault codes are not erasable, not even using KDS

You don’t have to tell your customer you were able to do this because you made a master key at the time of sale.

OL	D. KDS3 diagnostics 1. Open K-Tech News <u>online</u> , Special Edit 2012, pg 8 2. Also recommend a. K-Tech News Volume 24, Issue 3 and Volume 24, Issue 4 b. And K-Tech News Volume 20, Issue 4 3. Also recommend the many KDS resources on k-dealer in the special tool section – show <u>online</u> also	
OL	a. Connection guide b. Installation manual c. Components list d. Software download point 4. Don't forget relay cables (renamed comm cables in 2010) a. 57001-1535 for small hull (22" long) boats b. 57001-1696 for large hull (32" long, Ultra series) boats 5. Path to KDS Failure History a. Start menu→Without Smart→Main menu→FI menu→Diagnosis b. Click Failure History button c. Codes are not erasable	
LAB	E. Practical (lab) activity – students' assignments: 1. Register one or more Ultra keys 2. Retrieve DFI fault codes using dealer mode, look up in service manual 3. Retrieve DFI fault codes using KDS3, look up in service manual	3:00pm
	F. Knowledge check 4:30~4:40	4:30pm
	G. End of day 4:40	4:40pm

Ultra 300 Pro Service

Ultra 300 Seasonal Maintenance

Ref

Lesson Objectives

The student will:

1. “Fog” a supercharger per Kawasaki procedure
2. Assemble a storage prep checklist for their and their customers’ use

Benefit to the Student

With the highly seasonal nature of personal watercraft use, it is important that the technician be skilled in performing seasonally-specific maintenance. “Winterization” and preparing for use techniques are invaluable, equipping the technician to function at a high level at the dealership.

Lesson

DAY 3

- A. Debrief of yesterday’s activities
- B. Servicing a submerged personal watercraft
 1. Remember to educate your customers that a capsized Ultra must always be rolled to the left to minimize the water that enters engine
 2. Remove the seats to gain access to the engine bay
 3. Open the stern drain screws
 4. Remove the airbox drain cap to drain any water out
 5. Disconnect the ignition coil primary leads
 6. Remove spark plugs
 7. Crank starter to purge water from engine cylinders (wear eye protection)
 8. Reinstall spark plugs and start engine and run for no more than 15 seconds, or hook up water hose to run longer
 9. Inspect the fuel tank and engine oil for water
 10. Reinstall the stern drain screws and run craft under load for a minimum of 10 minutes to fully dry out engine and exhaust

Notes

8:30am
 8:45am

From coolig and bilge chapter,

Fault codes 51 and 52 will be created by cranking engine with no coils attached, the codes are clear-able but not erasable.

- C. Preparing the Ultra for storage
1. Be proactive in sending emails or postcards to your Ultra owners to have their boats winterized just before the season ends
 2. Take a photo of the boat to record its condition, especially if you are offering storage service at the dealership
 3. Don't plan on storing the boat in the water
 - a. The paint will lift from the hull
 - b. Electrolytic corrosion will happen
 4. Attend to any service needs before storage
 - a. Perform a walkaround, noting maintenance needs
 - b. Performance issues
 - c. Fault codes
 - d. Check VIP for outstanding service campaigns
 5. Best practice is actually to perform a full maintenance service
 - a. Change oil and filter
 - b. Check valve clearances
 - c. Check for fault codes
 - d. Grease pivots, linkages, cables
 - e. Check all hoses for condition and their clamps for tightness
 - f. Inspect air filter and clean if necessary
 6. Flush the cooling system per the manual
 - a. After doing as the manual describes, go a step further and unhook the coolant output hose at the engine and allow water to drain into the engine bay
 - b. Remember to reattach the hose and properly tighten its clamp
 7. Flush the bilge system per the manual
 8. Completely drain the fuel tank and remove the fuel pump to replace the fuel pump filter
 9. Loosen the fuel filling cap to prevent tank condensation
 10. Disconnect the ignition coil primary leads
 11. Remove the spark plugs and fog the cylinders, bump the engine over a few times to distribute oil around the cylinders
 12. Apply anti-seize to the spark plugs and reinstall
 13. 250/260 models – lube and fog per Service Bulletin 07-06
 - a. The supercharger must be fogged independently and specifically apart from the rest of the boat – on the 250X this means disconnecting the intercooler-to-supercharger tube and back spraying from this point into the supercharger
 - b. For the 250X model this bulletin is especially important
 - c. Also WD40 the supercharger's outside parts, being careful to avoid the drive belt
 - d. This technique must be carried out in normal use also each time the boat is used in salt water or in rough water
 - e. Inspect the drive belt for cracks, wear, tension

Open this bulletin on k-dealer.

14. 300 models fog using the built-in fogging hose
 15. Reconnect the ignition coils
 16. Charge battery, clean it , disconnect its negative cable, grease both terminals and charge the battery once per month during the storage period
 - a. A fully charged battery will not freeze
 17. Clean and inspect the jet pump
 - a. Weeds, debris
 - b. Impeller condition
 - c. Bearing and seal condition
 18. Wash out the engine compartment with a spray hose and open the stern drain screws to drain the water off, wipe up any excess water
 19. Wax the boat's finish
 20. WD40 all metal parts inside the engine bay and outside the boat
 21. Prop the seat open with blocks of wood to maintain ventilation of the engine bay during storage
 22. Put a cover on the boat and store in a clean dry place
 23. There may be pwc trailer needs also, as determined by your customer
- D. 15-minute break 10:00~10:15
- E. Taking the Ultra out of storage
1. Check all linkages and cables, especially throttle and steering
 2. Clean and gap spark plugs
 3. Check all hose clamps
 4. Make sure stern drain screws are screwed in
 5. Check the fire extinguisher for a full charge
 6. Inspect supercharger belt condition
 7. Charge the battery if necessary
 8. Remove the supercharger belt cover
 9. Disconnect the ignition coil primary leads
 10. Crank the engine once or twice while watching the supercharger pulley to ensure supercharger isn't frozen
 11. Fill the fuel tank
 12. Check the oil level and condition
 13. With the seat still off , start the engine and check
 - a. Throttle response
 - b. Fuel leaks
 14. After shutting off engine check
 - a. Oil level again
 - b. Check for oil leaks, water leaks
 15. There may be pwc trailer needs also, as determined by your customer
 16. Point out to your customer the pre-ride checklist in their owner's manual when delivering the boat back to the customer
 17. Point out factory recommendation to fog supercharger daily

Most folks simply replace the battery each season I think.

10:00am
10:15am

F. Practical (lab) activity – students' assignments:	10:30am
1. Fog a supercharger (both old style and new style if available)	
2. Construct a concise pre-storage checklist for use by your shop or to offer to your customer	
3. Finish any uncompleted tasks	
G. Lunch break 12:00~1:00	12:00pm
H. Debrief activity 1:00~1:15	1:00pm
I. Final quiz 1:15~1:25	1:15pm
J. End of day 1:25	1:25pm

JET SKI® WATERCRAFT CHRONOLOGY 1973 - 2013

	1973	1974	1976	1977	1978	1979	1980	1981	
400cc	WSAA/AB	WSAA	JS400-A3						400cc
440cc				JS440-A1	JS440-A1A JS440-A2	JS440-A3	JS440-A4 JS440-A4A	JS440-A5	440cc
	1982	1983	1984	1985	1986	1987	1988		
300cc					JS300-B1	JS300-A1:300SX JS300-B2	JS300-A2:300SX JS300-B3	300cc	
440cc	JS440-A6	JS440-A7	JS440-A8 JS440-A8U	JS440-A9	JS440-A10	JS440-A11	JS440-A12	440cc	
550cc	JS550-A1	JS550-A2	JS550-A3	JS550-A4	JS550-A5	JS550-A6	JS550-A7	550cc	
650cc					JF650-A1:X-2	JF650-A2:X-2 JS650-A1:650SX	JF650-A3:X-2 JS650-A2:650SX	650cc	
	1989	1990	1991	1992	1993	1994			
300cc	JS300-A3:300SX	JS300-A4:300SX	JS300-A5:300SX				300cc		
440cc	JS440-A13	JS440-A14	JS440-A15	JS440-A16			440cc		
550cc	JS550-A8	JS550-B1:550SX	JS550-C1:550SX	JS550-C2:550SX	JS550-C3:550SX	JS550-C4:550SX	550cc		
650cc	JB650-A1:JET MATE JF650-A4:X-2 JF650-B1:TS JS650-A3:650SX	JB650-A2:JET MATE JF650-A5:X-2 JF650-B2:TS JS650-A4:650SX	JB650-A3:JET MATE JF650-A6:X-2 JF650-B3:TS JS650-B1:650SX JL650-A1:SC	JB650-A4:JET MATE JF650-A7:X-2 JF650-B4:TS JS650-B2:650SX JL650-A2:SC	JF650-A8:X2 JF650-B5:TS JS650-B3:650SX JL650-A3:SC	JF650-A9:X2 JF650-B6:TS JL650-A4:SC		650cc	
750cc				JH750-A1:750SS JS750-A1:750SX	JH750-A2:750SS JH750-B1:Super Sport Xi JS750-A2:750SX	JH750-A3:750SS JH750-B2:Super Sport Xi JH750-D1:XiR JS750-A3:750SX JT750-A1:ST JT750-A1A:ST		750cc	
	1995	1996	1997	1998	1999	2000			
550cc	JS550-C5:550SX						550cc		
650cc	JF650-A10:X2 JF650-B7:TS JL650-A5:SC	JF650-B8:TS					650cc		
750cc	JH750-A4:750SS JH750-B3:Super Sport Xi JH750-C1:750ZXi JS750-A4:750SX JS750-B1:750SX JT750-A2:ST JT750-B1:STS	JH750-E1:750SS JH750-F1:Super Sport Xi JH750-C2:750ZXi JS750-B2:750SX JT750-B2:STS	JH750-E2:750SS JH750-F2:Super Sport Xi JH750-C3:750ZXi JT750-B3:STS	JH750-G1:Xi Sport JS750-C1: SXi Pro JT750-C1:750STX®	JH750-G2:Xi Sport JS750-C2: SXi Pro	JH750-A5:1100ZXi JT1100-C1: 1100 STX® D.I.	750cc		
900cc	JH900-A1:900ZXi	JH900-A2:900ZXi	JH900-A3:900ZXi JT900-A1:900STX®	JT900-A2:900STX®	JT900-B1:900STX®	JT900-B2:900STX®	900cc		
1100cc		JH1100-A1:1100ZXi	JH1100-A2:1100ZXi JT1100-A1: 1100STX®	JH1100-A3:1100ZXi JT1100-B1: 1100STX®	JH1100-A4:1100ZXi JT1100-B2: 1100STX®	JH1100-A5:1100ZXi JT1100-C1: 1100 STX® D.I.	1100cc		
1200cc					JH1200-A1: Ultra® 150	JH1200-A2: Ultra® 150	1200cc		

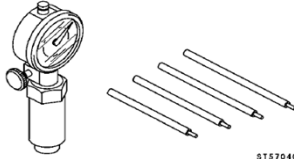
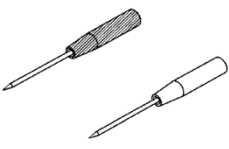


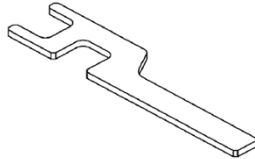
WATERCRAFT CHRONOLOGY

	2001	2002	2003	2004	
750cc	JS750-C4:Si Pro	JS750-C5:Si Pro			750cc
800cc			JS800-A1:800 SX-R™	JS800-A2:800 SX-R™	800cc
900cc	JT900-B3:900 STS JT900-C1:900 STX®	JT900-B4:900 STS JT900-C2:900 STX®	JT900-D1:900 STX®	JT900-E1:900 STX®	900cc
1100cc	JH1100-A6:1100 ZXi JT1100-F1:1100 STX® D.I. JH1100-B1:Ultra® 130 D.I.	JH1100-A7:1100 ZXi JT1100-F2:1100 STX® D.I. JH1100-B2:Ultra® 130 D.I.	JH1100-A8:1100 ZXi JT1100-G1:1100 STX® D.I. JH1100-B3:Ultra® 130 D.I.	JH1100-B4:Ultra® 130 D.I.	1100cc
1200cc	JH1200-A3:Ultra® 150	JH1200-A4:Ultra® 150 JT1200-A1:1200 STX®-R	JH1200-B1:Ultra® 150 JT1200-A2:1200 STX®-R T1200-B1:STX®-12F	JH1200-B2:Ultra® 150 JT1200-C1:1200 STX®-R JT1200-B2:STX®-12F	1200cc
1500cc				JT1500-A1:STX®-15F	1500cc

	2005	2006	2007	2008	2009	
800cc	JS800-A3:800 SX-R™	JS800A6F:800 SX-R™	JS800A7F:800 SX-R™	JS800A8F:800 SX-R™	JS800A9F:800 SX-R™	800cc
900cc	JT900-E2:900 STX®	JT900E6F:900 STX®				900cc
1200cc	JH1200-B3:Ultra® 150 JT1200-C2:1200 STX®-R JT1200-D1:STX®-12F	JT1200D6F:STX®-12F	JT1200D7F:STX®-12F			1200cc
1500cc	JT1500-A2:STX®-15F	JT1500A6F:STX®-15F	JT1500A7F:STX®-15F JT1500B7F:Ultra® 250X JT1500C7F:Ultra® LX	JT1500A8F:STX®-15F JT1500B8F:Ultra® 250X JT1500C8F:Ultra® LX	JT1500A9F:STX®-15F JT1500D9F:STX® JT1500E9F:Ultra® 260X JT1500F9F:Ultra® 260LX JT1500G9F: Ultra® LX	1500cc

	2010	2011	2012	2013	
800cc	JS800AAF:800 SX-R™	JS800ABF:800 SX-R™			800cc
1500cc	JT1500AAF:STX®-15F JT1500DAF:STX® JT1500EAF:Ultra® 260X JT1500FAF:Ultra® 260LX JT1500GAF:Ultra® LX	JT1500ABF:STX®-15F JT1500GBF:Ultra® LX JT1500HBF/ HBFA:Ultra® 300X JT1500JBF:Ultra® 300LX	JT1500ACF:STX®-15F JT1500HCF/ HBFA:Ultra® 300X JT1500JCF:Ultra® 300LX JT1500KCF:Ultra® LX	JT1500ADF:STX®-15F JT1500HDF:Ultra® 300X JT1500JDF:Ultra® 300LX JT1500KDF:Ultra® LX	1500cc

Ultra® Pro Special Tool List

<p>Top Dead Center Finder: 57001-402</p>  <p>ST570402ST C</p>	<p>Clamp: 13280-0726</p>  <p>ST130726ST C</p>	<p>Belt Measuring Gauge: 57001-1697</p>  <p>ST571697ST C</p>
<p>Inspection Cap Tool: Commonly Available</p>  <p>Suggested product Motion Pro 08-0087</p>	<p>Needle Adapter Set: 57001-1457</p>  <p>ST571457ST C</p>	<p>Throttle Position Sensor Measuring Adapter: 57001-1719</p>  <p>ST571719ST C</p>
<p>Measuring Adapter: 57001-1700</p>  <p>ST571700ST C</p>	<p>KDS3 Set: Parts Available Separately</p>  <ul style="list-style-type: none"> 57001-1650 CD 57001-1725 Converter C57001-0017 USB Cable 57001-1649 Pre-2010 Comm Cable 57001-1688 Pre-2010 Comm Cable 57001-1745 2010 Comm Cable 57001-1535 PWC Relay Cable 57001-1696 PWC Relay Cable 57001-1699 Z1000 Cable 	<p>Bearing Driver Set: Commonly Available</p>  <p>Suggested product Sunex 3910</p>
<p>Compression Tester: Commonly Available</p>  <p>Suggested product Motion Pro 08-0188</p>	<p>Leakdown Tester: Commonly Available</p>  <p>Suggested product Motion Pro 08-0126</p>	<p>Shaft Wrench: 57001-1760</p>  <p>ST571760ST C</p>
<p>Wrench Extension: Commonly Available</p>  <p>Suggested product Motion Pro 08-0134</p>	<p>Impeller Holder: 57001-1695</p>  <p>ST571695ST C</p>	<p>Impeller Wrench: 57001-1228</p>  <p>ST571228ST C</p>
<p>Key Registration Unit: 57001-1582</p>  <p>ST571582ST C</p>	<p>Key Registration Adapter: 57001-1746</p>  <p>ST571746ST C</p>	

The non-factory tools listed here are not endorsed or guaranteed by Kawasaki Motors Corp. as to suitability or durability, but are mentioned as a courtesy only.

Student _____

Ultra® Pro Student Workstation Check-Off

Ultra Familiarization	Ultra service bulletins	_____	<input type="checkbox"/>
Finding True TDC	Find true TDC using coupler	_____	<input type="checkbox"/>
Removing Exhaust Filter	Remove and inspect exh filter	_____	<input type="checkbox"/>
Removing Superchrgr Belt	Remove and replace S/C belt	_____	<input type="checkbox"/>
	Properly tension S/C belt	_____	<input type="checkbox"/>
Inspecting Pump Impeller	Remove jet pump and inspect	_____	<input type="checkbox"/>
Rebuilding Jet Pump	Completely disass and reass	_____	<input type="checkbox"/>
Registering Ultra Keys	Register one or more keys	_____	<input type="checkbox"/>
Retrieving fault codes	Retrieve fault codes, onboard	_____	<input type="checkbox"/>
	Retrieve fault codes, KDS	_____	<input type="checkbox"/>
Fogging Ultra Superchrgr	Fog the S/C both old and new	_____	<input type="checkbox"/>
Preparing Ultra for Storage	Assemble a storage checklist	_____	<input type="checkbox"/>

Tips for success:

1. Use the manual!
2. Use 90 in-lbs on all 6mm bolts unless specified otherwise
3. Use your resources, including K-Dealer
4. Stay busy, look for additional projects
5. Engines will be left in running condition
6. Take time to learn
7. The instructor is also your resource

Student Profile

Name _____

Dealer Number _____

Class Location _____

Date _____

Position Service Manager GM/Owner Technician _____

Years in the industry Over 25 10~25 5~10 1~5

----- FOLD AND TEAR -----

~~~~~ FOLD ONLY ~~~~~

\_\_\_\_\_  
NAME

## Kawasaki Ultra® Pro Service Final Quiz

Student name:

1. Kawasaki Ultra® service bulletins are found under which of the following K-Dealer menus?
  - a. Sales
  - b. Parts
  - c. Training
  - d. Service
  
2. A special method is recommended for timing Kawasaki Ultra® camshaft because:
  - a. The cams are not marked
  - b. The crankshaft is not marked
  - c. The crankshaft is hard to see inside the boat
  - d. The cam chain tensioner is difficult to work with
  
3. The benefit of the later Kawasaki Ultra® model's exhaust filter is:
  - a. The filter helps the engine make more power
  - b. The filter helps the boat produce more thrust
  - c. The filter reduces the amount of water creep-back in the exhaust
  - d. The filter reduces exhaust temperature to reduce maintenance
  
4. The service manual recommends which of the following after tensioning the Kawasaki Ultra® supercharger drive belt?
  - a. To fog the supercharger
  - b. To torque the cylinder head
  - c. To crank the engine and recheck belt tension
  - d. To torque the engine mounts
  
5. A special procedure allows removing and replacing the Kawasaki Ultra® supercharger drive belt without removing the engine.
  - a. True
  - b. False
  
6. Later Kawasaki Ultra® jet pumps have a \_\_\_\_\_ impeller shaft.
  - a. Hardened
  - b. 3-bearing
  - c. 1-bearing
  - d. Longer
  
7. KDS is used to register additional user keys on the Kawasaki Ultra®.
  - a. True
  - b. False



8. You may enter self-diagnostic mode on the Kawasaki Ultra® by:
  - a. Using KDS
  - b. Grounding the correct wire
  - c. Holding the Set and Mode buttons at the same time
  - d. Holding the Set and Odometer buttons at the same time
9. Which of the following is one way a Kawasaki Ultra® must never be stored?
  - a. On sawhorses
  - b. On a trailer
  - c. Under a tarp
  - d. In the water
10. Any time water is drained out of the boat, which of the following must be remembered?
  - a. To rev the engine to dry it out
  - b. To retighten the stern drain screws
  - c. To inspect the exhaust filter
  - d. To inspect the supercharger

## Kawasaki Training Center Assets Checklist

| √                        | ITEM                              | BX | √                        | ITEM                               | BX | √                        | ITEM                           | BX |
|--------------------------|-----------------------------------|----|--------------------------|------------------------------------|----|--------------------------|--------------------------------|----|
| <input type="checkbox"/> | Adhesive bandages                 | 3  | <input type="checkbox"/> | Manometer lanyards                 | 2  | <input type="checkbox"/> | Ultra TDC finding wire, 12 ga  | 3  |
| <input type="checkbox"/> | Bearing driver set Sunex 3910     | 2  | <input type="checkbox"/> | Mechanics gloves                   | 2  | <input type="checkbox"/> | Ultra replacemt engine mount   | 1  |
| <input type="checkbox"/> | Brake aerosol Permatex            | 3  | <input type="checkbox"/> | Multimeter batt (tackle box)       | 2  | <input type="checkbox"/> | Ultra impeller holder for vise | 1  |
| <input type="checkbox"/> | Compression tester                | 2  | <input type="checkbox"/> | Multimtr fuse 800mA (tackle bx)    | 2  | <input type="checkbox"/> | Ultra impeller wrench          | 1  |
| <input type="checkbox"/> | Coolant, engine                   | 3  | <input type="checkbox"/> | Multimeter fuse 20A (tackle bx)    | 2  | <input type="checkbox"/> | Valve adjust feeler 0.006"     | 1  |
| <input type="checkbox"/> | Corrosion Block aerosol           | 3  | <input type="checkbox"/> | Multimeter test leads for Sears    | 1  | <input type="checkbox"/> | Valve adjust feeler 0.010"     | 1  |
| <input type="checkbox"/> | CVT pulley block for vise         | 1  | <input type="checkbox"/> | Multimtr needle probes (tackle bx) | 2  | <input type="checkbox"/> | Valve adjust tool Teryx late   | 1  |
| <input type="checkbox"/> | CVT pulley holder                 | 1  | <input type="checkbox"/> | Oil drain pan                      | 3  | <input type="checkbox"/> | Vise jaws, aluminum            | 1  |
| <input type="checkbox"/> | CVT pulley holder (compressor)    | 1  | <input type="checkbox"/> | Oil funnel                         | 3  | <input type="checkbox"/> | Wipe down Meguires             | 2  |
| <input type="checkbox"/> | CVT pulley removing bolt          | 1  | <input type="checkbox"/> | Pilot screw adjusters              | 2  | <input type="checkbox"/> | Wrench extension torque        | 1  |
| <input type="checkbox"/> | CVT rebuild parts (tackle box)    | 2  | <input type="checkbox"/> | Pressure gauge, oil and fuel       | 2  | <input type="checkbox"/> | Ziplock bags, 1 qt size        | 3  |
| <input type="checkbox"/> | Deflection tool, ATV, RUV         | 2  | <input type="checkbox"/> | Pressure gauge adapter             | 2  |                          |                                |    |
| <input type="checkbox"/> | Dial caliper                      | 2  | <input type="checkbox"/> | Safety glasses (15)                | 3  |                          |                                |    |
| <input type="checkbox"/> | Diesel compression tester         | 2  | <input type="checkbox"/> | Sealer Kawabond 5                  | 1  |                          |                                |    |
| <input type="checkbox"/> | Diesel comp tester adapter        | 2  | <input type="checkbox"/> | Sealer Threebond 1211              | 1  |                          |                                |    |
| <input type="checkbox"/> | Diesel timing tool                | 1  | <input type="checkbox"/> | Sensor test cable, generic         | 1  |                          |                                |    |
| <input type="checkbox"/> | Diesel timing tool dial indicator | 1  | <input type="checkbox"/> | Shop towels box of 200             | 2  |                          |                                |    |
| <input type="checkbox"/> | Duct tape                         | 1  | <input type="checkbox"/> | Socket extens 24" long 1/2" dr     | 3  |                          |                                |    |
| <input type="checkbox"/> | Engine oil                        | 3  | <input type="checkbox"/> | Socket adapter 1/2" to 3/8"        | 1  |                          |                                |    |
| <input type="checkbox"/> | Feeler gauge set                  | 2  | <input type="checkbox"/> | Sp plug sock 5/8, 18mm, 13/16      | 2  |                          |                                |    |
| <input type="checkbox"/> | Felt pen for Ultra cam timing     | 1  | <input type="checkbox"/> | Straightedge 18"                   | 2  |                          |                                |    |
| <input type="checkbox"/> | Fogging aerosol, Star Brite       | 3  | <input type="checkbox"/> | Straightedge (pocket ruler) 6"     | 1  |                          |                                |    |
| <input type="checkbox"/> | Fuel hose for testing pump        | 1  | <input type="checkbox"/> | Tackle box with hardware           | 2  |                          |                                |    |
| <input type="checkbox"/> | Gasket scraper                    | 1  | <input type="checkbox"/> | TDC finder                         | 2  |                          |                                |    |
| <input type="checkbox"/> | Gasket scraper blades             | 1  | <input type="checkbox"/> | Tees plastic 1/8" (tackle box)     | 2  |                          |                                |    |
| <input type="checkbox"/> | Graduated beaker                  | 1  | <input type="checkbox"/> | Teryx valve adj o-ring (tackle)    | 2  |                          |                                |    |
| <input type="checkbox"/> | Grease                            | 3  | <input type="checkbox"/> | Teryx offset long 10mm wrench      | 2  |                          |                                |    |
| <input type="checkbox"/> | Hand cleaner Fast Orange          | 2  | <input type="checkbox"/> | Torque wr 250 ft-lb Storm 3T425    | 3  |                          |                                |    |
| <input type="checkbox"/> | Hose clamps (tackle box)          | 2  | <input type="checkbox"/> | Torque wrench, in-lb               | 2  |                          |                                |    |
| <input type="checkbox"/> | Inspection cap tool 3-way         | 1  | <input type="checkbox"/> | TPS test cable                     | 1  |                          |                                |    |
| <input type="checkbox"/> | Jumper wires (tackle box)         | 2  | <input type="checkbox"/> | Ultra exhaust filter               | 1  |                          |                                |    |
| <input type="checkbox"/> | KDS converter                     | 3  | <input type="checkbox"/> | Ultra FPO keys                     | 1  |                          |                                |    |
| <input type="checkbox"/> | KDS USB cable                     | 3  | <input type="checkbox"/> | Ultra key registration tool        | 1  |                          |                                |    |
| <input type="checkbox"/> | KDS pre-2010 comm cables          | 3  | <input type="checkbox"/> | Ultra key registr tool lanyards    | 1  |                          |                                |    |
| <input type="checkbox"/> | KDS Z1000 cable                   | 3  | <input type="checkbox"/> | Ultra key registration Y-cable     | 1  |                          |                                |    |
| <input type="checkbox"/> | KDS post-2010 comm cable          | 3  | <input type="checkbox"/> | Ultra s/c belt tens tool early     | 1  |                          |                                |    |
| <input type="checkbox"/> | KDS PWC relay cable, small hull   | 3  | <input type="checkbox"/> | Ultra s/c belt tens tool late      | 1  |                          |                                |    |
| <input type="checkbox"/> | KDS PWC relay cable, large hull   | 3  | <input type="checkbox"/> | Ultra 3-bearing shaft late         | 1  |                          |                                |    |
| <input type="checkbox"/> | Leakdown tester                   | 2  | <input type="checkbox"/> | Ultra 2-bearing shaft early        | 1  |                          |                                |    |
| <input type="checkbox"/> | Manometers                        | 2  | <input type="checkbox"/> | Ultra pump rebuild parts (bag)     | 1  |                          |                                |    |

"BX" = number on outside of box, not quantity. Quantities vary between 1 and 4, average 2 per training center