CNH INDUSTRIAL | REMAN

CNH Reman

PLM FROM PRODUCT DEVELOPMENT TO THE FIELD AND BACK AGAIN

CASE AGRICULTURE · STEYR · CASE CONSTRUCTION · NEW HOLLAND AGRICULTURE · NEW HOLLAND CONSTRUCTION · IVECO · IVECO ASTRA · IVECO BUS · HEULIEZBUS · MAGIRUS · FPT POWERTRAIN TECHNOLOGIES

Agenda

- Who is CNH Reman
- Where We Were
- Implementation Process
- Positive Effects of Initial Implementation
- Negative Effects of Initial Implementation
- User Transformation
- Phase II
- Future Plans

Who is CNH Reman

CNH Industrial

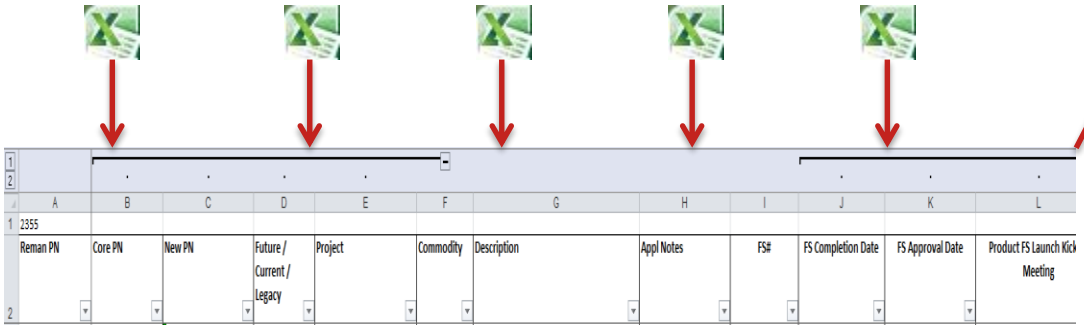
- Dealer network and brand
- Faithful customers
- OEM products
- Marketing expertise
- Field Sales – P&S, Brands
- Next day distribution – Depots
- Scale & scope to grow

SRC Holdings Corp

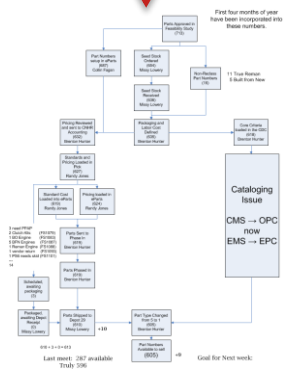
- Reman experience
- Managerial know how
- Systems – IT/software
- Operational expertise
- Inside/Outside Sales – Tech Center
- Low cost direct distribution
- Entrepreneurial spirit

Where we were:

- Management by spreadsheet
- No visibility of process steps for new product launch
- No data integrity
- No accountability



Values		
Row Labels	Sum of Reclass	Sum of Reman
A/C Comp		4
Axle		
Drivetrain	84	176
Electronics	46	15
Eng Comp	5	175
Engine		
Engine Comp		
Engines	7	135
Fuel		
Hyd Cyl	20	
Hyd Motor	12	4
Hyd Pump	20	7
Hyd Pump Small		
Hyd Valve		
Hydraulic		
Hydraulics	4	31
Hydro Pump		
Rot Elect		
Rot. Electrical	7	11
Rotel		
(blank)		
Grand Total	205	558

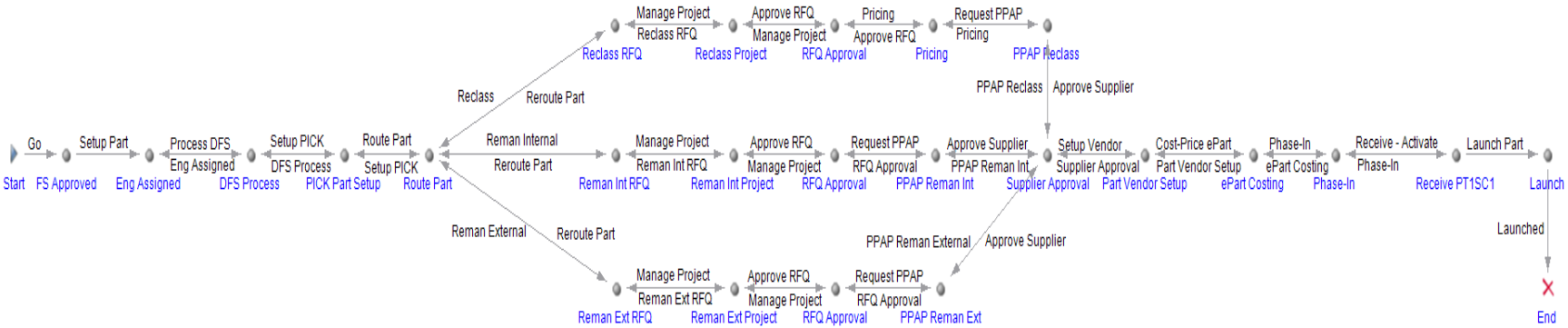


Discovery Process

- Worked with ARAS Partner, PSC, to determine needs and solutions
  - Conducted detailed user interviews with each department
  - Developed roadmap of critical processes
  - Developed phased approach implementation plan for ARAS Innovator

Launch!

- Phased approach with limited scope
  - Allowed for rapid implementation of most critical needs
  - Phase I focused strictly on new product launch (product pipeline)
  - Phase II loosely identified and planned for 2014



Positive Effects of Initial Implementation

- Time and Money savings!
  - Conservatively eliminated 20-25 hours of meeting preparation weekly
  - Eliminated costly data recovery efforts from data corruption
  - Instant answers for users and managers alike

- Data Integrity
  - Users only interact with the data they need with database reliability and backups
  - Increased use of the tool led to users trusting the numbers again

Positive Effects of Initial Implementation

- Increased Accountability
  - Real time metrics available on cycle time
  - Management can quickly see who has ownership of a process activity
    - ✓ Helps identify staffing issues vs. process issues

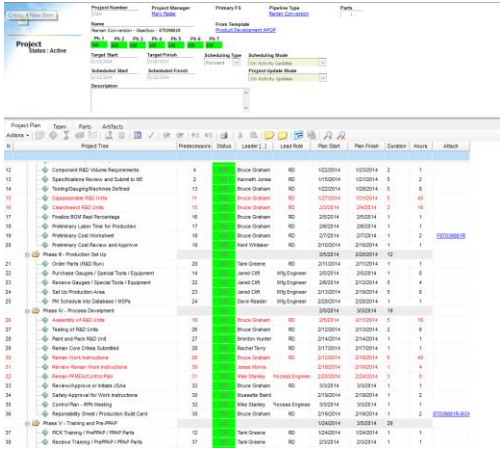
EAR N...	EAR T...	Description	Created On ...	DFS Sent [...]	DFS Recei...
14-*	Reman				
14-0112	Reman	FS01138 Hydraulic Pump and Motor	1/13/2014 ...	1/22/2014	2/4/2014
14-0212	Reman	FS011XX Gearbox	1/21/2014 ...	1/21/2014	1/24/2014
14-0214	Reman	EPA FPT Basic Engine (R on 12-0706)	1/21/2014 ...	1/21/2014	1/24/2014
14-0326	Reman	Replacement Engines for Tier 0 IPU	1/28/2014 ...	1/28/2014	3/6/2014
14-0327	Reman	FS01140 Tier 0 IPU	1/28/2014 ...	1/29/2014	3/6/2014
14-0443	Reman	FS01139 Engine Components	2/6/2014 1...	2/25/2014	3/19/2014
14-0444	Reman	FS01139 Hydraulics	2/6/2014 3:...	2/25/2014	4/2/2014
14-0833	Reman	FS01143 Axles	3/18/2014 ...	4/2/2014	4/4/2014
14-0834	Reman	FS01143 Clutches	3/18/2014 ...	4/3/2014	4/9/2014
14-0841	Reman	FS01143 Gearboxes	3/18/2014 ...	3/25/2014	4/2/2014
14-0842	Reman	FS01143 Electronics	3/14/2014 ...	3/12/2014	4/2/2014
14-0843	Reman	FS01143 Engine Components	3/18/2014 ...	4/3/2014	4/9/2014
14-0844	Reman	FS01143 Hyd Pumps	3/14/2014 ...	3/13/2014	4/2/2014
14-0845	Reman	FS01143 Hyd Steering Valves	3/14/2014 ...	3/13/2014	4/2/2014
14-1105	Reman	Clutchs	4/2/2014 3:...	3/31/2014	4/2/2014
14-1148	Reman	FS01146 Water Pump	4/7/2014 2:...	4/7/2014	

Pi...	Pip...	PLM State	FS / ROD	Part Number	Nou...	Noun Phrase	Name	Pipeline Type [...]	Commodity [...]	Commodity Sub-C...
Run Search										
Yes	2014	Project	FS01143	F81863664R	R571	REMAN-STEERING VA...	4WD	Reclass	Hydraulics	Hyd Valve
Yes	2014	Procurement...	FS01141	F81878509R	T081	REMAN-TORQUE CON...	REMAN-TORQUE CONVERTER	Reman External	Drivetrain	Clutch
Yes	2014	Project	FS01141	F82004604R	R538	REMAN-CLUTCH DISC	REMAN-CLUTCH DISC	Reman Internal	Drivetrain	Clutch
Yes	2014	Procurement...	FS01141	F82006010R	R538	REMAN-CLUTCH DISC	REMAN-CLUTCH DISC	Reman External	Drivetrain	Clutch
Yes	2014	PPAP	FS01141	F82006021R	R538	REMAN-CLUTCH DISC	REMAN-CLUTCH DISC	Reman Internal	Drivetrain	Clutch
Yes	2014	PPAP	FS01132	F82006027R	T018	REMAN-CLUTCH ASSY	PRESSURE PLATE ASSEMBLY	Reclass	Drivetrain	Clutch
Yes	2014	Procurement...	FS01143	F82006046R	T077	REMAN-CLUTCH PLATE	"13"", Plate & Cover Assy"	Reman External	Drivetrain	Clutch
Yes	2014	Project	FS01141	F82006626R	T077	REMAN-CLUTCH PLATE	REMAN-CLUTCH PLATE	Reman Internal	Drivetrain	Clutch
Yes	2014	Part Assignm...	FS01143	F82008857R	T077	REMAN-CLUTCH PLATE	"Damper Assy, Tourque"	Reclass	Drivetrain	Clutch
Yes	2014	Project	FS01141	F82011592R	R538	REMAN-CLUTCH DISC	REMAN-CLUTCH DISC DISC ASSY 12X12	Reman Internal	Drivetrain	Clutch
Yes	2014	Project	FS01141	F82011594R	T077	REMAN-CLUTCH PLATE	REMAN-CLUTCH PLATE PLATE ASSY 8X2	Reman Internal	Drivetrain	Clutch
Yes	2014	Project	FS01141	F83912979R	T077	REMAN-CLUTCH PLATE	REMAN-CLUTCH PLATE	Reman Internal	Drivetrain	Clutch
Yes	2014	Launch	FS01134	F83954555R	T097	REMAN-INSTR CLUST...	Complete Assembly	Reclass	Electronics	Instrument Cluster
Yes	2014	Project	FS01143	F83982867R	T097	REMAN-INSTR CLUST...	"W/Single stage PTO, L/Auxillary Fuel Tank, W/Synchro...	Reclass	Electronics	Instrument Cluster
Yes	2014	Project	FS01143	F83996272R	T027	REMAN-HYD PUMP	"Gear, engine mounted w/ filter"	Reclass	Hydraulics	Hyd Pump
Yes	2014	Project	FS01132	F84037969R	R558	REMAN-GEARBOX	REVERSE SB	Reclass	Drivetrain	Gearbox
Yes	2014	Project	FS01134	F84100291R	R001	REMAN-ECU	Header Height	Reclass	Electronics	ECU
Yes	2014	RFQ Approval	FS01126	F84127424R	R512	REMAN-REPLACEMEN...	REPL,NEF,6.7L,6CYL,2V,T3	Reman Internal	Engines	Replacement
Yes	2014	Launch	FS01131	F84129556ER	R512	REMAN-REPLACEMEN...	REPL,NEF,6CYL,4V,T3	Reclass	Engines	Replacement
Yes	2014	Launch	FS01131	F84131040ER	R507	REMAN-SHORT ENGINE	SHORT,NEF,4CYL,2V,T3	Reclass	Engines	Short Block

Positive Effects of Initial Implementation

- Increased Accountability
  - Migration of Advanced Product Qualification Process (APQP) into ARAS via Project module
  - Single source of record allows for expanded reporting
    - ✓ Departments and individuals can track Key Performance Indicators
    - ✓ Supervisors can rapidly evaluate and balance workload

Project Number	Name	Sched Start [...]	Sched Due [...]	Status	Ph 1	Ph 2	Ph 3	Ph 4	Ph 5	Ph 6	Ph 7	Ph 8	Ph 9	Ph 10	Ph 11	Ph 12	Project Manager [...
	reman			active													
1427	Reman - FUJI Transmission Improvements	9/23/2013	1/31/2014	Active	81	100	100	100	100	100	100						Mary Rader
1429	Reman Conversion - Gearbox 47452970R	9/23/2013	10/15/2013	Active	112		100	100	100	150							Mary Rader
1440	Reman Conversion - Hydraulic Piston Pumps - Ph...	10/1/2013	4/7/2014	Active	100	76	64	51	36	0	1						Mary Rader
1468	Reman Transfer - Cummins 8.3 Engine	1/2/2014	3/24/2014	Active	100	74	94	98	95	76	41						Mary Rader
1469	Reman - New Build Axle Project - PN 47453000	11/4/2013	1/31/2014	Active	99	100	97	100	100	100	100						Mary Rader
1477	Reman Conversion -Joystick 7	11/22/2013	1/7/2014	Active	100	100		100	100	100	83						Mary Rader
1488	Reman External - Cummins Engines	1/6/2014	1/15/2014	Active	50	0	0										Mary Rader
1499	Reman Machining - Conn Rod - Phase 1	1/27/2014	3/28/2014	Active	100	100	100	100	100		100						Mary Rader
1501	Reman Conversion -Actuators - Phase 1	1/27/2014	3/24/2014	Active	96	100	100	100	100	0	0						Mary Rader
1502	Reman - Manual Fuel Injectors	1/13/2014	2/28/2014	Active	100	100	100	100			100						Mary Rader
1503	Reman Machining - Crankshaft - ALL	2/3/2014	3/28/2014	Active	55	68	51	93	100	66	6						Mary Rader
1504	Reman Conversion - Gearbox - 87039881R	1/13/2014	3/12/2014	Active	100	100	100	100	100	100	100						Mary Rader
1505	Reman Transfer - CRIN Fuel Injectors	4/1/2014	5/30/2014	Active	0	0	0	0	0	0	0						Mary Rader
1506	Reman Conversion - ISM Bosch Injectors	1/31/2014	3/31/2014	Active	94	100	100	100	100	100	83						Mary Rader



Positive Effects of Initial Implementation

- Increased Visibility
  - Management can see the flow of parts through the pipeline at weekly meeting
    - ✓ Quickly identifies choke points and allows for quicker corrective action
    - ✓ Under the old system, problems may not have even been identified
  - Users can see what other departments are doing without having to request data

Type	Feasibility Approved	Part Setup	Engineering Assigned	Part Assignment	Procurement RFQ	Project	RFQ Approval	PSW	Supplier Approval	Part Vendor Setup	e Part Costing	Phase In	Depot Receiving	Launch	Total
Reman On Demand		0	0	0	0	108	4	0	0	0	0	0	13	71	196
Reclass		0	19	20	2	135	0	4	0	0	4	0	20	108	312
Reman Internal		0	0	0	18	11	2	0	0	0	0	0	8	1	40
Reman External		0	0	0	0	18	2	5	0	0	0	0	3	4	32
Total	580	0	19	20	20	272	8	9	0	0	4	0	44	184	580

Negative Effects of Initial Implementation

(that are still positives!)

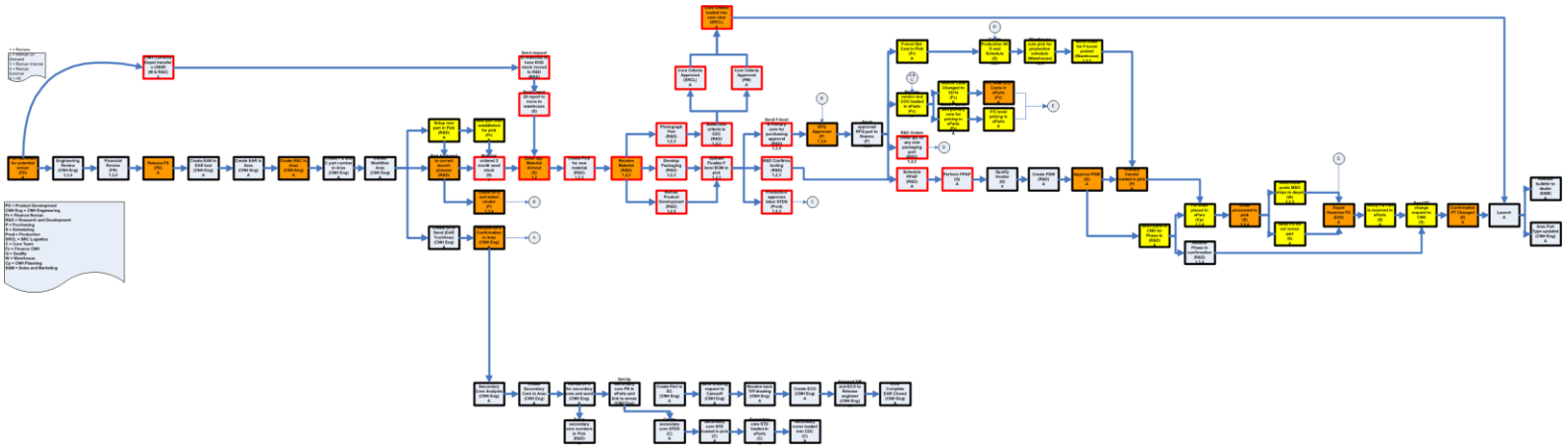
- Shortfalls identified
  - Request for Quote (RFQ) visibility
    - ✓ No mechanism in place to identify parts that need an RFQ generated to outside vendors
    - ✓ Identified hundreds of part numbers that had fallen through the gaps
  - Quality planning for external vendors
    - ✓ No mechanism in place to identify external parts/vendors needing PPAP/PSW and Supplier Approval
    - ✓ Current system is very reactive vs. logical planning
  - Workflow/Lifecycle issues
    - ✓ Phase I implementation has “hidden” steps with multiple owners per lifecycle state
    - ✓ Not as granular as management would like
  - Data import/export requires labor intensive manual input of certain required data

User Transformation

- Users were initially very reluctant to use “yet another” system
- “Enlightened” users want more features and capabilities!
  - Steady stream of minor enhancement requests
  - Building list of major enhancement requests
  - Added “Service Request” module to ARAS to document requests
- Identifying desires for future phases

Phase II Implementation

- Revise Workflow and Lifecycle
  - More granularity
  - Individual part number level reporting from Project



Phase II Implementation

- Enhanced Reporting
  - Detailed RFQ report
  - Pipeline dashboard derived from combination of Lifecycle, Workflow, Project, and Part data

CNH REMAN

Weekly External RFQ Report

Report Date: 3/24/2014

RFQ Status for Reman External and Conversion Parts (last month = MTD)

Part in RFQs	Jan	Feb	Mar	YTD
Issued	78	23	1	101
Accepted	54	52	3	109
Rejected	27	23	1	51

RFQ Completion for Reman External and Conversion Parts

Total Parts Released Aras	Total Parts w/ RFQ	Total Parts w/o RFQ	Total Parts w/o RFQ	Drivetrain	Electrical	Electronics	Eng Comp	Engines	Fuel	Hydraulics	IPU	Rotel	Turbo	Not Identified
2073	1575	498		274	77	292	189	128	90	725	0	247	46	5

RFQ Aging for All Parts

Supplier	Parts on RFQ's Outstanding	Average Days Old	Drivetrain	Electrical	Electronics	Eng Comp	Engines	Fuel	Hydraulic	IPU	Rotel	Turbo	Not Identified
ALMA PRODUCTS, INC.	90	228	29	12	1						48		
Atlantic Hydraulics LLC	10	41							10				
CIONA TECHNOLOGIES	61	545	2	6	53								
D&W	117	168		21	3	37		14	2		40		
DRCC ENGINEERING	9	532	1		8								
FLIGHT SYSTEMS ELECTRONICS	22	549		8	12							2	
PERFECTION HYDRAULICS	40	69	1						39				
RPD ENGINEERING, INC.	4	151				4							
SRC ELECTRICAL	34	116									34		
SRC HEAVY DUTY	31	330				4	26		1				
SRC POWER SYSTEMS	10	42								10			
WABCO REMAN SOLUTIONS	46	507			1	3			36		6		
Total	474	Avg: 273	33	47	78	48	26	14	88	10	128	2	0

Pick Reclass parts total	Pick reclass parts with RFQ	Pick reclass parts without RFQ and no 2nd supplier	Pick reclass parts without RFQ and a 2nd supplier
1914	605	1149	160

Phase II Implementation

- Data Import/Export Automation
  - Corporate parts system has over 1.4 million part numbers
    - ✓ Parts are imported to ARAS for feasibility study
  - Push/Pull data to ERP system instead of manual transfer
- Migration to Innovator 9.4
  - Plan to move to version 10, sp1 as soon as possible
    - ✓ PSC evaluating how changes will affect current implementation

Future Plans

- Streamline processes within ARAS
  - Incorporate external quality planning into RFQ lifecycle/workflow
  - Develop PPAP/PSW and Supplier approval forecasting for external quality
- Migrate some Quality processes into ARAS
  - Process Change Requests (via web form on company intranet)
  - Parts Submission Warrants
- Integrate (some) Safety Department tracking requirements
- Integrate (some) HR Department tracking requirements
- ERP integration
- ??????? Users coming up with new ideas seemingly daily!

Thank You!