



BORGWARNER IMPLEMENTATION GUIDELINE

FOR

V4010 830

PLANNING SCHEDULE

830 BorgWarner Material Release v004010

Functional Group ID=**PS**

Introduction:

This Standard contains the format and establishes the data contents of the Planning Schedule with Release Capability Transaction Set (830) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business practice relative to the transfer of forecasting/material release information between organizations. The planning schedule transaction may be used in various ways or in a combination of ways, such as: (1) a simple forecast; (2) a forecast with the buyer's authorization for the seller to commit to resources, such as labor or material; (3) a forecast that is also used as an order release mechanism, containing such elements as resource authorizations, period-to-date cumulative quantities, and specific ship/delivery patterns for requirements that have been represented in "buckets," such as weekly, monthly, or quarterly. The order release forecast may also contain all data related to purchase orders, as required, because the order release capability eliminates the need for discrete generation of purchase orders.

Heading:

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
M	010	ST	Transaction Set Header	M	1		
M	020	BFR	Beginning Segment for Planning Schedule	M	1		
O	050	REF	Reference Identification	O	12		
M	280	PER	Administrative Communications Contact	M	2		
LOOP ID - N1						200	
M	230	N1	Name	M	1		
O	250	N3	Address Information	O	2		
O	260	N4	Geographic Location	O	1		

Detail:

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
LOOP ID - LIN						>1	
M	010	LIN	Item Identification	M	1		
M	020	UIT	Unit Detail	M	1		
O	080	PID	Product/Item Description	O	1000		
O	150	PER	Administrative Communications Contact	O	3		
O	230	ATH	Resource Authorization	O	20		
LOOP ID - FST						>1	
M	410	FST	Forecast Schedule	M	100		n1
LOOP ID - SHP						25	
M	470	SHP	Shipped/Received Information	M	100		

Summary:

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
M	010	CTT	Transaction Totals	M	1		n2
M	020	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. At least one occurrence of segment FST is required, either in the FST loop or within the SDP loop. These two loops are mutually exclusive.
2. Number of line items (CTT01) is the accumulation of the number of LIN segments. If used, hash total (CTT02) is the sum of the values of the quantities (FST01) for each FST segment.

Segment: **ST** Transaction Set Header
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number

Notes: 1 The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition.

Example: ST*830*0001~

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
ST01	143	Transaction Set Identifier Code	M ID 3/3
		Code uniquely identifying a Transaction Set	
		830 Planning Schedule with Release Capability	
ST02	329	Transaction Set Control Number	M AN 4/9
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	

Segment: **BFR** Beginning Segment for Planning Schedule

Position: 020

Loop:

Level: Heading

Usage: Mandatory

Max Use: 1

Purpose: To indicate the beginning of a planning schedule transaction set; whether a ship or delivery based forecast; and related forecast envelope dates.

- Syntax Notes:**
- 1 At least one BFR02 or BFR03 is required.
 - 2 BFR02 is the identifying number for a forecast assigned by the orderer/purchaser.
 - 3 BFR06 is the forecast horizon start date: The date when the forecast horizon (envelope) begins.
 - 4 BFR08 is the date forecast generated: The date the forecast data was generated.

Notes: 1 BorgWarner does not send the BFR07.

Example: BFR*05*201305271730*361*DL*A*20130530**20130527~

Data Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
BFR01	353	Transaction Set Purpose Code Code identifying purpose of transaction set 05 Replace	M ID 2/2
BFR02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier If a release number is not used this field is mandatory - either BFR02 or BFR03 must be used	X AN 1/30
BFR03	328	Release Number Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction If a Reference ID is not used this field is mandatory - either BFR02 or BFR03 must be used	X AN 1/30
BFR04	675	Schedule Type Qualifier Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast DL Delivery Based SH Shipment Based	M ID 2/2
BFR05	676	Schedule Quantity Qualifier Code identifying the type of quantities used when defining a schedule or forecast A Actual Discrete Quantities C Cumulative Quantities	M ID 1/1
BFR06	373	Date Date expressed as CCYYMMDD Forecast start date	M DT 8/8
BFR08	373	Date Date expressed as CCYYMMDD Date forecast created	M DT 8/8

Segment: **PER Administrative Communications Contact**

Position: 280

Loop: N1

Level: Heading

Usage: Mandatory

Max Use: 2

Purpose: To identify a person or office to whom administrative communications should be directed.

Syntax Notes: 1 If either PER03 or PER04 is present, then the other is required.

Example: PER*IC*Free Form Name*TE*708-547-2900~

Data Element Summary

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>		<u>Attributes</u>
PER01	366	Contact Function Code Code identifying the major duty or responsibility of the person or group named. EX Expeditor IC Information Contact		M ID 2/2
PER02	93	Name Free-form name		O AN 1/35
PER03	365	Communication Number Qualifier Code identifying the type of communication number. FX Facsimile TE Telephone		M ID 2/2
PER04	364	Communication Number Complete communications number including country or area code when applicable.		X AN 1/80

Segment: **REF** Reference Identification
Position: 050
Loop:
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information

Syntax Notes: 1 At least one REF02 or REF03 is required.

Example: REF*L1**Free Form Description~

Data Element Summary

<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification L1 Letters or Notes	M ID 2/2
REF02	127	Reference Identification Reference information as defined for a particular transaction set or as specified by the Reference Identification Qualifier.	X AN 1/30
REF03	352	Description A free-form description to clarify the related data elements and their content	X AN 1/80

Segment: **N1** Name
Position: 230
Loop: N1 Mandatory
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: 1 If either N103 or N104 is present, then the other is required.

Example: N1*MI*BorgWarner Location*1*Location DUNS Number~
 N1*SU*Vendor Name*92*Vendor Assigned Code~
 N1*ST*BorgWarner Location*92*Location Plant Code~

Data Element Summary

Ref.	Data	Element	Name	Attributes
N101		98	Entity Identifier Code	M ID 2/3
			Code identifying an organizational entity, a physical location, property or an individual	
			MI Planning Schedule/Material Release Issuer	
			ST Ship To	
			SU Supplier/Manufacturer	
N102		93	Name	X AN 1/60
			Free-form name	
N103		66	Identification Code Qualifier	M ID 1 / 2
			Code designating the system/method of code structure used for Identification Code (67)	
			1 D-U-N-S Number, Dun & Bradstreet	
			92 Assigned by Buyer or Buyer's Agent	
			This code is used if the identification code was assigned by BorgWarner	
N104		67	Identification Code	M AN 2/80
			Code identifying a party or other code	

Segment: **N3** Address Information
Position: 250
Loop: N1 Optional
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party

Example: N3*700 25th Avenue~

Data Element Summary

<u>Ref.</u>	<u>Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
N301	166		Address Information	M AN 1/55
			Address information	
N302	166		Address Information	O AN 1/55
			Address information	NOT USED

Segment: **N4** Geographic Location
Position: 260
Loop: N1 Optional
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes:

- 1 A combination of either N401 through N404 may be adequate to specify a location.
- 2 N402 is required only if city name (N401) is in the U.S. or Canada.

Example: N4*Bellwood*IL*60104*US~

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N401	19	City Name	O AN 2/30
		Free-form text for city name	
N402	156	State or Province Code	O ID 2/2
		Code (Standard State/Province) as defined by appropriate government agency	
N403	116	Postal Code	O ID 3/15
		Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	
N404	26	Country Code	O ID 2/3
		Code identifying the country	

Segment: **LIN** Item Identification
Position: 010
Loop: LIN Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify basic item identification data
Syntax Notes:

- 1 LIN01 is the PO line number.
- 2 If either LIN04 or LIN05 is present, then the other is required.
- 2 If either LIN06 or LIN07 is present, then the other is required.

Example: LIN*00010*BP*32586RS*PO*55000001234*EC*A~

Data Element Summary

Ref.	Data		Attributes	
<u>Des.</u>	<u>ElementName</u>			
LIN01	350	Assigned Identification		M AN 1/10
			Purchase order line number.	
LIN02	235	Product/Service ID Qualifier		M ID 2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
			Buyer's part number is mandatory and will always be in LIN03.	
		BP	Buyer's Part Number	
LIN03	234	Product/Service ID		M AN 1/48
			Identifying number for a product or service	
LIN04	235	Product/Service ID Qualifier		X ID 2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		EC	Engineering Change Level	
			This code is used for "part revision level"	
		PO	Purchase Order Number	
LIN05	234	Product/Service ID		X AN 1/48
			Identifying number for a product or service	
LIN06	235	Product/Service ID Qualifier		X ID 2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		EC	Engineering Change Level	
			This code is used for "part revision level"	
		PO	Purchase Order Number	
LIN07	234	Product/Service ID		X AN 1/48
			Identifying number for a product or service	

Segment: **UIT** Unit Detail
Position: 020
Loop: LIN Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify item unit data
Notes: 1 This segment indicates the unit of measure for all quantities relating to the line item.
Example: UIT*LB

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
UIT01	355	Unit or Basis for Measurement Code	M ID 2/2
		Code identifying the basic unit of measurement.	
		EA	Each
		LB	Pound
		CH	Container
		DZ	Dozen
		YD	Yard
		UN	Unit
		FT	Foot
		GA	Gallon
		ST	Set
		PR	Pair

Segment: **PID** Product/Item Description
Position: 080
Loop: LIN Optional
Level: Detail
Usage: Optional
Max Use: 1000
Purpose: To describe a product or process in free-form format
Syntax Notes: 1 When PID01 equals "F" then PID05 is used.

Example: PID*F****Part description~

Data Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
PID01	349	Item Description Type	M ID 1/1
		Code indicating the format of a description	
		F Free-form	
PID05	352	Description	X AN 1/80
		A free-form description to clarify the related data elements and their content	
		This is the part description and is required by BorgWarner	

Segment: **PER Administrative Communications Contact**

Position: 150

Loop: LIN Optional

Level: Detail

Usage: Optional

Max Use: 3

Purpose: To identify a person or office to whom administrative communications should be directed

Syntax Notes: 1 If either PER03 or PER04 is present, then the other is required.

Example: PER*BD*Buyer Name*TE*Telephone Number~

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
PER01	366	Contact Function Code Code identifying the major duty or responsibility of the person or group named EX Expeditor BD Buyer Name or Department	M ID 2/2
PER02	93	Name Free-form name	M AN 1/16
PER03	365	Communication Number Qualifier Code identifying the type of communication number TE Telephone	X ID 2/2
PER04	364	Communication Number Complete communications number including country or area code when applicable.	X AN 1/80

Segment: **ATH** Resource Authorization

Position: 230

Loop: LIN Optional

Level: Detail

Usage: Optional

Max Use: 20

Purpose: To specify resource authorizations (i.e., finished labor, material, etc.) in the planning schedule

- Syntax Notes:**
- 1 At least one of ATH02 or ATH03 is required.
 - 2 If ATH03 is present, then ATH05 is required.
 - 3 If ATH04 is present, then ATH05 is required.

- Semantic Notes:**
- 1 ATH02 is the resource authorization through date: The date through which the buyer authorizes the seller to commit the resource defined in element ATH01.
 - 2 ATH03 is the current cumulative requirements quantity: The cumulative quantity that has been authorized to date from the cumulative start date (ATH05) through the resource authorization through date (ATH02).
 - 3 ATH05 is the cumulative start date: The date where the cumulative quantity count starts. This date might be the start date of a contract period, a calendar or fiscal year, or other.

Example: ATH*PQ*20130609*50000**20120801~

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
ATH01	672	Resource Authorization Code	M ID 2/2
		Code identifying the resource which the buyer is authorizing the seller to commit to.	
		FI Finished (Labor, Material, and Overhead/Burden)	
		MT Material	
		PQ Cumulative quantity required prior to the first schedule period	
ATH02	373	Date	X DT 8/8
		Date expressed as CCYYMMDD	
		Authorization through date	
ATH03	380	Quantity	X R 1/15
		Numeric value of quantity	
		Authorization cumulated quantity	
ATH05	373	Date	X DT 8/8
		Date expressed as CCYYMMDD	
		Start date for cumulative quantity authorization	

Segment: **FST** Forecast Schedule
Position: 410
Loop: FST Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify the forecasted dates and quantities
Syntax Notes:

- 1 When FST03 equals "F" (indicating flexible interval), then FST04 and FST05 are required. FST04 would be used for the start date of the flexible interval and FST05 would be used for the end date of the flexible interval.
- 2 As qualified by FST02 and FST03, FST04 represents either a discrete forecast date, the first date of a forecasted bucket (weekly, monthly, quarterly, etc.) or the start date of a flexible interval.

Example: FST*3000*C*D*20130530~
 FST*3000*D*W*20130624~

Data Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
FST01	380	Quantity Numeric value of quantity	M R 1/15
FST02	680	Forecast Qualifier Code specifying the sender's confidence level of the forecast data or an action associated with a forecast C Firm D Planning	M ID 1/1
FST03	681	Forecast Timing Qualifier Code specifying interval grouping of the forecast C Daily D Discrete F Flexible Interval (from Date X through Date Y) M Monthly Bucket (Calendar Months) Q Quarterly (Calendar Quarters) T Four week bucket (13 buckets per year) W Weekly Bucket (Monday through Sunday) X Weekly Bucket (7 day interval)	M ID 1/1
FST04	373	Date Date expressed as CCYYMMDD Schedule start date	M DT 8/8
FST05	373	Date Date expressed as CCYYMMDD End date if flexible interval {F} is used in FST03	O DT 8/8

Segment: **SHP** Shipped/Received Information

Position: 470
Loop: SHP Mandatory

Level: Detail

Usage: Mandatory

Max Use: 1

Purpose: To specify shipment and/or receipt information. The SHP segment is used to communicate shipment, delivery, or receipt information and may include discrete or cumulative quantities, dates and times.

- Syntax Notes:**
- 1 If SHP01 is present, then SHP02 is required.
 - 2 If SHP03 is present, then at least one of SHP04 or SHP05 is required.
 - 3 If SHP04 is present, then SHP03 is required.
 - 4 SHP04 is the date shipped, delivered, received, or the cumulative quantity start date (as qualified by SHP03).
 - 5 SHP06 is the cumulative quantity end date.
 - 6 If SHP01 equals "02", indicating cumulative quantities, then SHP04 and SHP06 are required to identify the start and end dates of the quantity count.

Example: SHP*01*100*050*20130101~
 SHP*02*100*051*201300101**20130530~

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
SHP01	673	Quantity Qualifier Code specifying the type of quantity 01 Discrete Quantity 02 Cumulative Quantity	M ID 2/2
SHP02	380	Quantity Numeric value of quantity If SHP01 = "01" and SHP03 = "050" this is the Last Received Quantity If SHP01 = "02" and SHP03 = "051" this is the Cumulative Quantity Received	X R 1/15
SHP03	374	Date/Time Qualifier Code specifying type of date or time, or both date and time 050 Received 051 Cumulative Quantity Received Start	X ID 3/3
SHP04	373	Date Date expressed as CCYYMMDD If SHP01 = "01" and SHP03 = "050" this is last received date If SHP01 = "02" and SHP03 = "051" this is cumulative qty received start date	X DT 8/8
SHP06	373	Date Date expressed as CCYYMMDD If SHP01 = "02" this is cumulative quantity received end date	X DT 8/8

Segment: **CTT** Transaction Totals
Position: 010
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set to validate transaction completeness and correctness.

Example: CTT*1~

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
Des. CTT01	Element 354	Number of Line Items	M NO 1/6
		Total number of line items in the transaction set	
		Total number of LIN segments	

Segment: **SE** Transaction Set Trailer
Position: 020
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Comments: 1 SE is the last segment of each transaction set.

Example:SE*30*0001~

Data Element Summary			
<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
SE01	96	Number of Included Segments	M NO 1/10
		Total number of segments included in a transaction set including ST and SE segments	
SE02	329	Transaction Set Control Number	M AN 4/9
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	