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REVISION

DESCRIPTION

DRAFTER

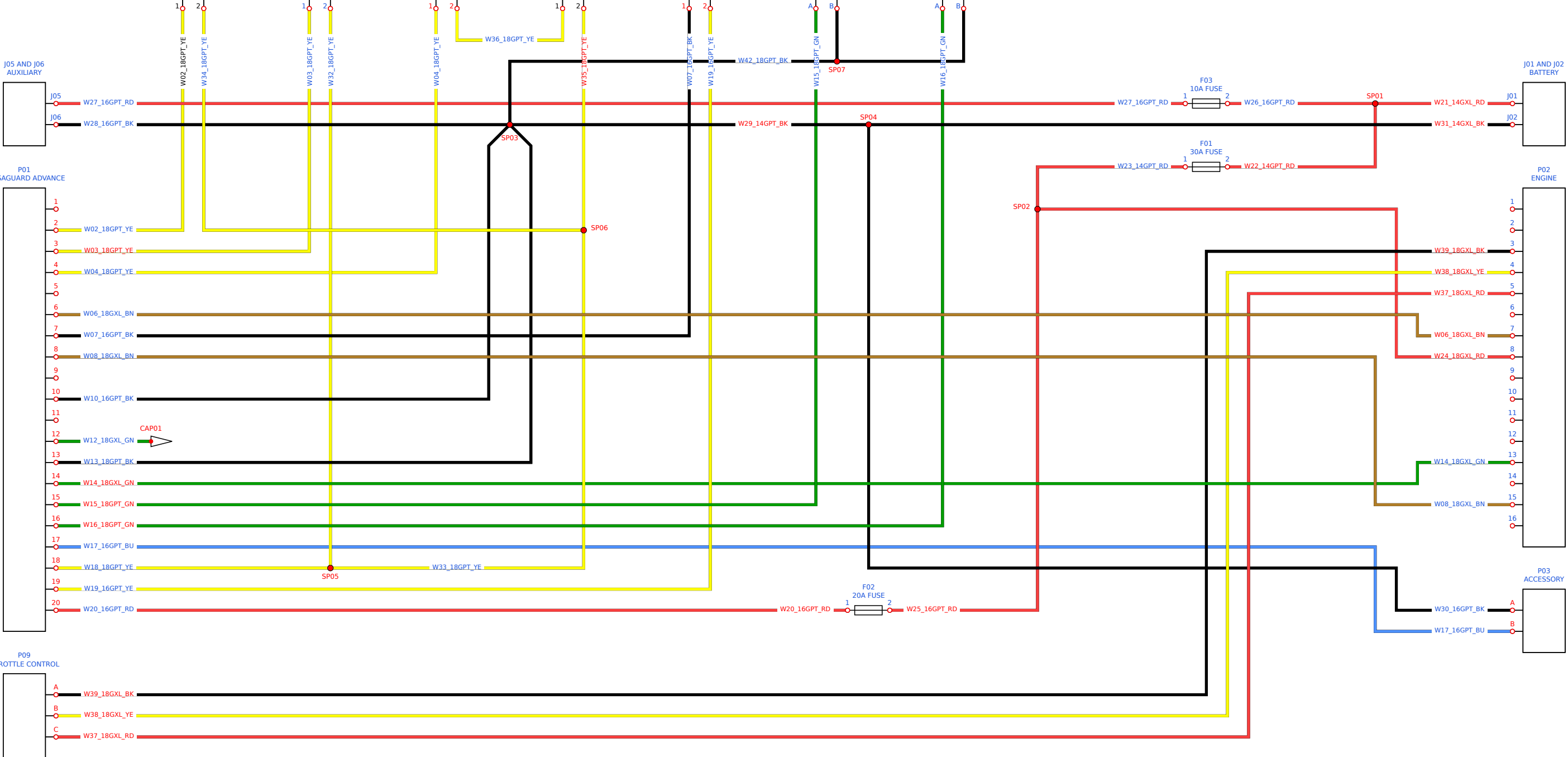
DATE

B

ECM XXXXXX UPDATED W/ # CHGS FROM REV __

Sarah Hayes

02-01-24



UNLESS OTHERWISE SPECIFIED
DIMS ARE IN INCHES
TOL ON ANGLE ± -
2PL ± - 3PL ± -
INTERPRET DIM AND TOL PER
ASME Y14.5M-2018

SIGNATURES		MM-DD-YY
DRAWN BY Sarah Hayes		02-01-24
CHECKED/VERIFIED		
ORIGINATOR Sarah Hayes		
SIMILAR TO N/A		
FINISH CLASS N/A		
ORIGINATING LOCATION BATESVILLE		

TTC | Engineering
CONFIDENTIAL PROPERTY OF THE TORO COMPANY BLOOMINGTON, MN

TITLE
HARNESS-WIRE

SIZE B	DWG NO 148-1033	REV B
SCALE 1:1	WEIGHT .01 LB	SHEET 3 OF 5

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REVISION			
REV	DESCRIPTION	DRAFTER	DATE
B	ECM XXXXXX UPDATED W/ # CHGS FROM REV __	Sarah Hayes	02-01-24

CONNECTOR	MANUFACTURER	MANUFACTURER PART NO.	DESCRIPTION	QUANTITY
J01	TE CONNECTIVITY	485030-1	CLOSED RING TONGUE TERMINAL, 18 - 14 AWG, 5/16 / M8 STUD SIZE, 8.33 MM [.328 IN] STUD DIAMETER, OPEN BARREL, STRAIGHT, TIN, UNINSULATED	1
J02	TE CONNECTIVITY	485030-1	CLOSED RING TONGUE TERMINAL, 18 - 14 AWG, 5/16 / M8 STUD SIZE, 8.33 MM [.328 IN] STUD DIAMETER, OPEN BARREL, STRAIGHT, TIN, UNINSULATED	1
J05	TE CONNECTIVITY	3-350819-2	QUICK DISCONNECTS, RECEPTACLE, 16 - 14 AWG WIRE SIZE, 1.31 - 2.08 MM² WIRE SIZE, MATING TAB WIDTH 6.35 MM [.25 IN], STRAIGHT, BRASS, ULTRA-FAST 250	1
J06	TE CONNECTIVITY	3-350819-2	QUICK DISCONNECTS, RECEPTACLE, 16 - 14 AWG WIRE SIZE, 1.31 - 2.08 MM² WIRE SIZE, MATING TAB WIDTH 6.35 MM [.25 IN], STRAIGHT, BRASS, ULTRA-FAST 250	1
P01	MOLEX	330122001	MX150 FEMALE TERMINAL FOR MAT-SEALED CONNECTORS, TIN PLATING, 14 AND 16 AWG, RIGHT REEL PAYOFF	5
P01	MOLEX	330122002	MX150 FEMALE TERMINAL FOR MAT-SEALED CONNECTORS, TIN PLATING, 18 AND 20 AWG, RIGHT REEL PAYOFF	11
P01	MOLEX	334722001	MX150 MAT-SEALED FEMALE CONNECTOR ASSEMBLY, DUAL ROW, 20 CIRCUITS, KEYING OPTION A, WITHOUT CONNECTOR POSITION ASSURANCE, BLACK	1
P01	MOLEX	343454001	MX150 SEALED RECEPTACLE CAVITY PLUG	4
P02	MOLEX	330122002	MX150 FEMALE TERMINAL FOR MAT-SEALED CONNECTORS, TIN PLATING, 18 AND 20 AWG, RIGHT REEL PAYOFF	7
P02	MOLEX	334721606	MX150 MAT-SEALED FEMALE CONNECTOR ASSEMBLY, DUAL ROW, 16 CIRCUITS, KEYING OPTION A, WITH CONNECTOR POSITION ASSURANCE, BLACK	1
P02	MOLEX	343454001	MX150 SEALED RECEPTACLE CAVITY PLUG	9
P03	APTIV	12010300	PLUG SEAL FITS TO 6.7 MM CAVITY	2
P03	APTIV	12010973	2 WAY 2.6 W/P SEALED	1
P03	APTIV	12015792	2 WAY 2.6 W/P SEALED	1
P03	APTIV	12124580	2.6 W/P FEMALE LOCKING LANCE SEALED TERMINAL	2
P03	APTIV	15324982	SINGLE WIRE SEAL FITS TO 6.7 MM CAVITY	2
P04	APTIV	02965511	6.3 FEMALE 56 SERIES SN LOCKING LANCE UNSELAED TERMINAL	2
P04	APTIV	08911979	2 WAY F 56 SERIES UNSEALED CONNECTOR	1
P05	APTIV	02965510	56 SERIES FEMALE LOCKING LANCE SN UNSEALED TERMINAL	2
P05	APTIV	02973872	2 WAY F 56 SERIES 6.3 UNSEALED CONNECTOR	1
P06	APTIV	02965510	56 SERIES FEMALE LOCKING LANCE SN UNSEALED TERMINAL	2
P06	APTIV	02973872	2 WAY F 56 SERIES 6.3 UNSEALED CONNECTOR	1
P07	APTIV	02965510	56 SERIES FEMALE LOCKING LANCE SN UNSEALED TERMINAL	2
P07	APTIV	02973872	2 WAY F 56 SERIES 6.3 UNSEALED CONNECTOR	1
P08	APTIV	02965510	56 SERIES FEMALE LOCKING LANCE SN UNSEALED TERMINAL	2
P08	DELTA SYSTEMS	96526	CONNECTOR, PLUNGER SWITCH	1
P09	APTIV	12015793	3 WAY 2.6 W/P SEALED	1
P09	APTIV	12089040	2.6 W/P MALE LOCKING LANCE SEALED TERMINAL	3
P09	APTIV	15324982	SINGLE WIRE SEAL FITS TO 6.7 MM CAVITY	3
P10	TE CONNECTIVITY	1062-20-0144	AUTOMOTIVE TERMINALS, SOCKET, PIN DIAMETER 1.02 MM [.04 IN], 22 - 16 AWG WIRE SIZE, .35 - 1.5 MM² WIRE SIZE, DEUTSCH COMMON CONTACT	2
P10	TE CONNECTIVITY	DTM06-2S	HOUSING FOR FEMALE TERMINALS, WIRE-TO-WIRE, 2 POSITION, .165 IN [4.19 MM] CENTERLINE, SEALABLE, GRAY, WIRE & CABLE, POWER & SIGNAL, HYBRID	1
P10	TE CONNECTIVITY	WM-2S	AUTOMOTIVE CONNECTOR LOCKS & POSITION ASSURANCE, SECONDARY LOCK, ORANGE, PBT, 2 POSITION, -55 - 125 °C [-67 - 257 °F], DEUTSCH DT	1
P11	TE CONNECTIVITY	1062-20-0144	AUTOMOTIVE TERMINALS, SOCKET, PIN DIAMETER 1.02 MM [.04 IN], 22 - 16 AWG WIRE SIZE, .35 - 1.5 MM² WIRE SIZE, DEUTSCH COMMON CONTACT	2
P11	TE CONNECTIVITY	DTM06-2S	HOUSING FOR FEMALE TERMINALS, WIRE-TO-WIRE, 2 POSITION, .165 IN [4.19 MM] CENTERLINE, SEALABLE, GRAY, WIRE & CABLE, POWER & SIGNAL, HYBRID	1
P11	TE CONNECTIVITY	WM-2S	AUTOMOTIVE CONNECTOR LOCKS & POSITION ASSURANCE, SECONDARY LOCK, ORANGE, PBT, 2 POSITION, -55 - 125 °C [-67 - 257 °F], DEUTSCH DT	1
P12	APTIV	12010300	PLUG SEAL FITS TO 6.7 MM CAVITY	6
P12	APTIV	12077412	M/P 2.8 FEMALE LOCKING LANCE SEALED SERIES	6
P12	APTIV	15324981	SINGLE WIRE SEAL FITS TO 6.7 MM CAVITY	2
P12	APTIV	15324982	SINGLE WIRE SEAL FITS TO 6.7 MM CAVITY	4
P12	GEP POWER PRODUCTS	FRH-A12	HOUSING AND SEAL - PDM, FRH, 12 POS	1
P12	GEP POWER PRODUCTS	FRH-A12-C	COVER - PDM, FRH, 12 POS, GEP	1
P12	GEP POWER PRODUCTS	FRH-A12-MB-C1	BRACKET - PDM, FRH, 90° BENT, ZINC STEEL	1
P12	GEP POWER PRODUCTS	FRH-A12-T	TPA - PDM, FRH	1
P12	LITTELFUSE	0297010	10 A MINI® 32V AUTOMOTIVE BLADE FUSE	1
P12	LITTELFUSE	0297020	20 A MINI® 32V AUTOMOTIVE BLADE FUSE	1
P12	LITTELFUSE	0297030	30 A MINI® 32V AUTOMOTIVE BLADE FUSE	1
-	HELLERMANN TYTON	156-04091	2-PIECE CABLE TIE/FIR TREE MOUNT, 8.0"L, 0.26 - 0.28" MOUNTING HOLE DIAMETER, PA66HS, BLACK, 500/PKG	8
-	APTIV	-	ROUND CONVOLUTED CONDUIT [POLYETHYLENE, BLACK, SLIT]	-

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UNLESS OTHERWISE SPECIFIED DIMS ARE IN INCHES TOL ON ANGLE ± - 2PL ± - 3PL ± - INTERPRET DIM AND TOL PER ASME Y14.5M-2018	SIGNATURES	MM-DD-YY	TTC Engineering CONFIDENTIAL PROPERTY OF THE TORO COMPANY BLOOMINGTON, MN		
	DRAWN BY Sarah Hayes	02-01-24			
	CHECKED/VERIFIED				
	ORIGINATOR Sarah Hayes				
	SIMILAR TO N\A		HARNESS-WIRE		
	FINISH CLASS N\A		SIZE B	DWG NO 148-1033	REV B
	ORIGINATING LOCATION BATESVILLE		SCALE 1:1	WEIGHT .01 LB	SHEET 4 OF 5

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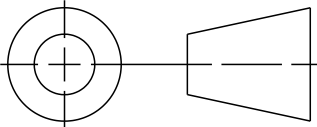
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REVISION			
REV	DESCRIPTION	DRAFTER	DATE
B	ECM XXXXXX UPDATED W/ # CHGS FROM REV __	Sarah Hayes	02-01-24

WIRE	GAUGE	MATERIAL	PRIMARY COLOR	SECONDARY COLOR	FROM CONNECTOR	FROM CAVITY	FROM MANUFACTURER	FROM TERMINAL	FROM SEAL/INSULATION SLEEVE	TO CONNECTOR	TO CAVITY	TO MANUFACTURER	TO TERMINAL	TO SEAL/INSULATION SLEEVE
W02	18	GPT	YELLOW	-	P08	1	APTIV	02965510	-	P01	2	MOLEX	330122002	-
W03	18	GPT	YELLOW	-	P05	1	APTIV	02965510	-	P01	3	MOLEX	330122002	-
W04	18	GPT	YELLOW	-	P06	1	APTIV	02965510	-	P01	4	MOLEX	330122002	-
W06	18	GXL	BROWN	-	P02	7	MOLEX	330122002	-	P01	6	MOLEX	330122002	-
W07	16	GPT	BLACK	-	P04	1	APTIV	02965511	-	P01	7	MOLEX	330122001	-
W08	18	GXL	BROWN	-	P02	15	MOLEX	330122002	-	P01	8	MOLEX	330122002	-
W10	16	GPT	BLACK	-	SP03	X	-	SONIC_SPLICE	INSULATION	P01	10	MOLEX	330122001	-
W12	18	GXL	GREEN	-	CAP01	X	-	-	-	P01	12	MOLEX	330122002	-
W13	18	GPT	BLACK	-	SP03	X	-	SONIC_SPLICE	INSULATION	P01	13	MOLEX	330122002	-
W14	18	GXL	GREEN	-	P02	13	MOLEX	330122002	-	P01	14	MOLEX	330122002	-
W15	18	GPT	GREEN	-	P10	A	TE CONNECTIVITY	1062-20-0144	-	P01	15	MOLEX	330122002	-
W16	18	GPT	GREEN	-	P11	A	TE CONNECTIVITY	1062-20-0144	-	P01	16	MOLEX	330122002	-
W17	16	GPT	BLUE	-	P01	17	MOLEX	330122001	-	P03	B	APTIV	12124580	15324982
W18	18	GPT	YELLOW	-	SP05	X	-	SONIC_SPLICE	INSULATION	P01	18	MOLEX	330122002	-
W19	16	GPT	YELLOW	-	P04	2	APTIV	02965511	-	P01	19	MOLEX	330122001	-
W20	16	GPT	RED	-	P12	12	APTIV	12077412	15324982	P01	20	MOLEX	330122001	-
W21	14	GXL	RED	-	J01	1	TE CONNECTIVITY	485030-1	INSULATION	SP01	X	-	SONIC_SPLICE	INSULATION
W22	14	GPT	RED	-	SP01	X	-	SONIC_SPLICE	INSULATION	P12	7	APTIV	12077412	15324981
W23	14	GPT	RED	-	P12	8	APTIV	12077412	15324981	SP02	X	-	SONIC_SPLICE	INSULATION
W24	18	GXL	RED	-	P02	8	MOLEX	330122002	-	SP02	X	-	SONIC_SPLICE	INSULATION
W25	16	GPT	RED	-	SP02	X	-	SONIC_SPLICE	INSULATION	P12	11	APTIV	12077412	15324982
W26	16	GPT	RED	-	SP01	X	-	SONIC_SPLICE	INSULATION	P12	5	APTIV	12077412	15324982
W27	16	GPT	RED	-	P12	6	APTIV	12077412	15324982	J05	1	TE CONNECTIVITY	3-350819-2	INSULATION
W28	16	GPT	BLACK	-	SP03	X	-	SONIC_SPLICE	INSULATION	J06	1	TE CONNECTIVITY	3-350819-2	INSULATION
W29	14	GPT	BLACK	-	SP04	X	-	SONIC_SPLICE	INSULATION	SP03	X	-	SONIC_SPLICE	INSULATION
W30	16	GPT	BLACK	-	SP04	X	-	SONIC_SPLICE	INSULATION	P03	A	APTIV	12124580	15324982
W31	14	GXL	BLACK	-	J02	1	TE CONNECTIVITY	485030-1	INSULATION	SP04	X	-	SONIC_SPLICE	INSULATION
W32	18	GPT	YELLOW	-	SP05	X	-	SONIC_SPLICE	INSULATION	P05	2	APTIV	02965510	-
W33	18	GPT	YELLOW	-	SP06	X	-	SONIC_SPLICE	INSULATION	SP05	X	-	SONIC_SPLICE	INSULATION
W34	18	GPT	YELLOW	-	P08	2	APTIV	02965510	-	SP06	X	-	SONIC_SPLICE	INSULATION
W35	18	GPT	YELLOW	-	P07	2	APTIV	02965510	-	SP06	X	-	SONIC_SPLICE	INSULATION
W36	18	GPT	YELLOW	-	P06	2	APTIV	02965510	-	P07	1	APTIV	02965510	-
W37	18	GXL	RED	-	P09	C	APTIV	12089040	15324982	P02	5	MOLEX	330122002	-
W38	18	GXL	YELLOW	-	P09	B	APTIV	12089040	15324982	P02	4	MOLEX	330122002	-
W39	18	GXL	BLACK	-	P09	A	APTIV	12089040	15324982	P02	3	MOLEX	330122002	-
W40	18	GPT	BLACK	-	P10	B	TE CONNECTIVITY	1062-20-0144	-	SP07	X	-	SONIC_SPLICE	INSULATION
W41	18	GPT	BLACK	-	P11	B	TE CONNECTIVITY	1062-20-0144	-	SP07	X	-	SONIC_SPLICE	INSULATION
W42	18	GPT	BLACK	-	SP07	X	-	SONIC_SPLICE	INSULATION	SP03	X	-	SONIC_SPLICE	INSULATION

CONNECTOR	MANUFACTURER	MANUFACTURER PART NO.	TPA/SECONDARY LOCK PART NO.	TORO PART NO.
J01	TE CONNECTIVITY	485030-1	-	32170-229
J02	TE CONNECTIVITY	485030-1	-	32170-229
J05	TE CONNECTIVITY	3-350819-2	-	32170-294
J06	TE CONNECTIVITY	3-350819-2	-	32170-294
P01	MOLEX	334722001	-	32160-179
P02	MOLEX	334721606	-	32160-527
P03	APTIV	12015792	-	32160-071
P04	APTIV	08911979	-	32160-057
P05	APTIV	02973872	-	32160-016
P06	APTIV	02973872	-	32160-016
P07	APTIV	02973872	-	32160-016
P08	DELTA SYSTEMS	96526	-	32160-017
P09	APTIV	12015793	-	32160-082
P10	TE CONNECTIVITY	DTM06-2S	WM-2S	32160-372
P11	TE CONNECTIVITY	DTM06-2S	WM-2S	32160-372
P12	GEP POWER PRODUCTS	FRH-A12	FRH-A12-T	32160-467

UNLESS OTHERWISE SPECIFIED
DIMS ARE IN INCHES
TOL ON ANGLE ± -
2PL ± - 3PL ± -
INTERPRET DIM AND TOL PER
ASME Y14.5M-2018



SIGNATURES

MM-DD-YY

DRAWN BY

Sarah Hayes

02-01-24

CHECKED/VERIFIED

ORIGINATOR

Sarah Hayes

SIMILAR TO

N\A

FINISH CLASS

N\A

ORIGINATING LOCATION

BATESVILLE

TTC | Engineering

CONFIDENTIAL PROPERTY OF THE TORO COMPANY BLOOMINGTON, MN

TITLE

HARNESS-WIRE

SIZE

B

DWG NO

148-1033

REV

B

SCALE 1:1

WEIGHT .01 LB

SHEET 5 OF 5

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