



STANDARD OPERATING PROCEDURE_OPS03

Pushback Assistance

Version/Rev	Date	Section	Amendment
V1/R1	11.03.2024	Procedure Steps	Dialogue added, Hand Signals added
V1/R1	11.03.2024	Reference	Reference added

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Issued: 10.10.2023

Revised: 11.03.2024

Version: V1/Rev1

OBJECTIVE

The purpose of this SOP is to guide TRCs with the correct Pushback Assistance procedure.

APPLICATION

Operations department:
Turnaround Coordinator; Load Controller

ABBREVIATIONS & DEFINITIONS

ATC = Air Traffic Control
TWT = Towbar Tractor
TWL = Towbarless Tractor



PROCEDURE STEPS

During a standard departure, once all aircraft doors are closed, the flight crew requests pushback and start up clearance from ATC. Once clearance is obtained, the flight crew will switch on the aircraft's anti-collision lights.

Note: The start and pushback clearance does not always have to come at the same time and there may be a few minutes in between on busy airports. Hence the anti-collision lights do not automatically mean that pushback clearance has been granted.

Step	Action
1.	Ensure the Aircrafts parking break is set and appropriate nose gear steering bypass pin is correctly installed prior to TWT/TWL connection to the aircraft. This will depressurize the aircraft steering system. Note: For Connection of towbar refer to SOP_OPS05
2.	After Pushback clearance: Prior to the aircraft movement, make sure the Aircraft's parking brake is released and the anti-collision lights are switched on, in accordance with local airport regulations.
3.	Brief Pushback driver on Pushback direction verbally or by using hand signal for pushback direction in accordance with local airport regulations.
4.	TRC shall signal "Clear to Push" to the pushback tractor driver once the flight crew advises that the aircraft brakes have been released and approval for pushback is given by the flight crew.
5.	During the maneuver, the TRC shall ensure the taxiway (including other movement areas in the intended aircraft path) is free of other aircraft/equipment/obstacles. If an obstacle is identified, the pushback shall stop immediately until the obstacle is clear using the „STOP" hand signal.
6.	Advise when the engines may be started and the start sequence.
7.	At the end of the maneuver, the aircraft/pushback tractor shall both be correctly aligned with the taxiway centerline.
8.	When the pushback maneuver is complete, TRC will receive the "Vehicle Brakes On/Stop" signal from the tractor driver to confirm that the tractor parking brake is set. Prior to the disconnection of the tow bar or towbarless tractor from the aircraft nose gear, headset operator: <ul style="list-style-type: none">a. Request flight crew to set the aircraft parking brake and hold the existing position until final clearance signal to taxi.b. When confirmation that the aircraft brakes have been set is received from the flight crew:<ul style="list-style-type: none">1. Give the „Brakes On/Stop" signal to the tractor driver and wing walkers, if applicable. Tractor driver releases the tractor parking brake and puts the gear in neutral to release any pressure on the towbar.2. Give authority to disconnect pushback equipment. Note: For Disconnection of towbar refer to SOP_OPS05.



Items to be communicated between TRC/Ground Crew and Flight Crew

Phase	Task	Responsible Ground Staff Member Action
Departure preparation	GPU removal	When instructed by flight crew, remove GPU.
	Towbar/TWL tractor connection	a. Get confirmation that aircraft parking brake is set. b. Get confirmation that the nose wheel steering is depressurized or advise flight crew that the steering bypass pin is inserted, if applicable. c. Connect the towbar. d. Connect the TWL tractor.
	Chock removal	a. Get confirmation from flight crew that aircraft parking brake is set. b. Remove chocks.
	Predeparture check	Advise flight crew that the predeparture check has been completed or communicate any discrepancies.
Engine start	Starting engines	When requested by the flight crew, advise when the engines may be started and the start sequence.
	ASU	When requested by the flight crew, signal to the ASU operator to supply the required pressure.
Pushback and engine start	Brakes	Get confirmation that the aircraft parking brake has been released.
	Movement of the aircraft (pushback/pull out)	Get permission from flight crew to commence pushback.
	Direction of push/nose	If applicable, ask in which direction the aircraft must be pushed or in which direction the nose should point after pushback.
	Engine start	When requested by the flight crew, advise when the engines may be started.
Pushback completed and engine start completed	Towbar/TWL tractor disconnect	a. Get confirmation that the aircraft parking brake is set. b. Disconnect. c. Remove the steering bypass pin, if applicable.
	Headset removal	a. Get permission from the flight crew to disconnect the headset. b. Advise the flight crew to hold position and wait for visual signal at left/front/right of the aircraft.
Departure	“All Clear” signal	a. Verify steering bypass pin removal has been completed, if applicable. b. Give the “All Clear” signal when the path of the aircraft is clear of all obstacles. c. Get acknowledgement from the flight crew of the “All Clear” signal.



Dialogue between TRC and Flight Crew via headset

Phase	TRC	Flight Crew
Preperation	<p>INFORM THE FLIGHT CREW ABOUT THE USE OF A TOWBAR OR TWL TRACTOR (if applicable) Call: CONFIRM PARKING BRAKE SET</p> <p>Reply: STEERING BYPASS PIN INSTALLED/NOSE WHEEL STEERING DEACTIVATED (if applicable)(1)</p> <p>Reply: CLEAR TO PRESSURIZE (if applicable)</p>	<p>Reply: PARKING BRAKE SET Call: CONFIRM STEERING BYPASS PIN INSERTED/NOSE WHEEL STEERING DEACTIVATED (if applicable)(1)</p> <p>Call: CONFIRM CLEAR TO PRESSURIZE? (if applicable)</p>
After completion of the predeparture servicing checks Pushback	<p>Call: PREDEPARTURE CHECKS COMPLETED Call: ELEVATING AIRCRAFT(2) Call: READY FOR PUSHBACK(1)</p> <p>Call: CONFIRM PARKING BRAKE RELEASED</p> <p>Call: COMMENCING PUSHBACK (MENTION AIRCRAFT NOSE DIRECTION, START-UP POINT, PULL FORWARD, ETC.)</p>	<p>Reply: STANDBY Call: PUSHBACK APPROVED (MENTION AIRCRAFT NOSE DIRECTION, START-UP POINT, PULL FORWARD, ETC.)</p> <p>Reply: PARKING BRAKE RELEASED</p>
Engine start	<p>Call: CLEAR TO START ENGINES</p>	<p>Reply: STARTING ENGINES (MENTION ENGINE START-UP SEQUENCE)</p>

Pushback completed	<p>Call: PUSHBACK COMPLETED, SET PARKING BRAKE</p>	<p>Reply: PARKING BRAKE SET</p>
Disconnecting	<p>Reply: DISCONNECTING, HOLD POSITION AND WAIT FOR HAND SIGNAL ON YOUR LEFT/FRONT/RIGHT (DISPLAY THE STEERING BYPASS PIN (IF APPLICABLE TO THE AIRCRAFT TYPE) TO THE FLIGHT CREW</p>	<p>Call: CLEAR TO DISCONNECT</p> <p>Reply: HOLDING POSITION AND STANDING BY FOR HAND SIGNAL ON THE LEFT/FRONT/RIGHT</p>

1 Applicable to departures with towbar and TWL tractors

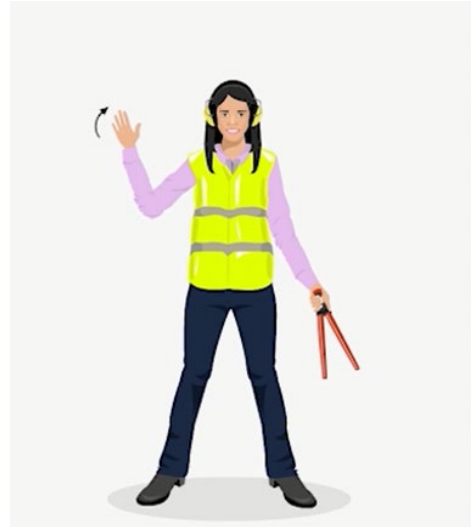
2 If required, applicable to TWL tractors



Hand Signals - TRC to Pushback Driver

Parking Break released

Raise right hand just above shoulder height with closed fist and ensuring eye contact with driver open palm toward driver.



Clear to Push



Hold arm straight out at a 90° angle from shoulder and display hand with thumb up.

Meaning: Indicates to tractor driver that all equipment is clear of aircraft, chocks have been removed, the aircraft brakes are off and flight crew has given clearance to commence pushback.

Negative/Hold

Hold arm straight out at 90° angle from shoulder and display hand with thumb down.

Meaning: Indicates to tractor driver that aircraft is not ready for pushback and to hold position





Breaks set/on



Raise hand just above shoulder height with open palm and, ensuring eye contact with the tractor driver, close into a fist. At the end of the pushback, also indicates to tug driver that aircraft brakes have been set. The tractor driver should return the signal to the headset operator to confirm vehicle brakes set.

Slow down



With hand at a 45° angle downward to the side, make a patting motion.



Pushback direction



Touch nose with finger with arm at a 90° angle to the shoulder, extend arm to point in the direction that aircraft needs to be turned to

Reference for further Guidance

DHS GOM

Airlines Ground Handling Manual

Aerodrome Manual